

PSG INSTITUTIONS

• PSG Sarva Jana Higher Secondary School	1924
• PSG Industrial Institute	1926
• PSG Polytechnic College	1939
• PSG Middle School, Vedapatti	1941
• PSG Primary School, Peelamedu	1943
• PSG College of Arts & Science	1947
• PSG College of Technology	1951
• PSG Rural Health Centre, Vedapatti	1961
• PSG & Sons' Charities Metallurgy and Foundry Division	1974
• PSG Institute of Medical Science & Research	1985
• PSG Rural Health Centre, Neelambur	1985
• PSG Industrial Training Centre	1986
• PSG Hospitals	1989
• PSG Centre for Sponsored Research and Consultancy	1989
• PSG Centre for Non-formal & Continuing Education	1989
• PSG Urban Health Centre	1993
• PSG Institute of Management	1994
• PSG College of Nursing	1994
• PSG Science and Technology Entrepreneurial Park (STEP)	1998
• PSG College of Physiotherapy	1999
• PSG College of Pharmacy	2001
• PSG Centre of Advertising & Communication	2001
• PSG Driving School	2002
• PSG Public Schools	2002
• PSG High Schools, Vedapatti	2005
• PSG Institute of Advanced Studies	2006
• PSG Children's Schools	2008
• PSG Hospitals, Karadivavi	2012
• PSG Vishnugranthi	2013
• PSG Institute of Technology and Applied Research, Neelambur	2014
• PSG CARE	2015

TECH BULLETIN 2015 - 2016

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TECH BULLETIN 2015 - 2016



PSG COLLEGE OF TECHNOLOGY

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Government Aided Autonomous College Affiliated to Anna University

Accredited by NBA-AICTE

ISO 9001:2000 Certified

VISION

PSG College of Technology aspires to be recognized as one of the leaders in engineering education, research and application of knowledge to benefit society

MISSION

To provide world-class engineering education, foster research and development, evolve innovative applications of technology, encourage, entrepreneurship, ultimately mould young men and women capable of assuming leadership of the society for the betterment of the country

Programmes offered by PSG College of Technology

	Programme	Field / Specialisation
UNDERGRADUATE PROGRAMMES	BE (4 years)	Automobile Engineering Biomedical Engineering Civil Engineering Computer Science and Engineering Electrical and Electronics Engineering Electronics and Communication Engineering Instrumentation and Control Engineering Mechanical Engineering Metallurgical Engineering Production Engineering Robotics and Automation Engineering
	B.Tech (4 years)	Biotechnology Fashion Technology Information Technology Textile Technology
	BE (Sandwich) (5 years)	Electrical and Electronics Engineering Mechanical Engineering Production Engineering
	B.Tech (Part Time) (3 ^{1/2} years)	Textile Technology
	B.Sc (4 years)	Applied Science Computer Systems and Design
POSTGRADUATE PROGRAMMES	ME (2 years)	Automotive Engineering Infrastructure Engineering Structural Engineering Computer Science and Engineering Software Engineering Applied Electronics Embedded and Real Time Systems Power Electronics and Drives Communication Systems VLSI Design Wireless Communications Biometrics and Cyber Security Control Systems Computer Integrated Manufacturing Engineering Design Industrial Engineering Lean Manufacturing Energy Engineering Industrial Metallurgy Manufacturing Engineering Product Design and Commerce Virtual Prototyping and Digital Manufacturing
	ME (Part Time) (3 years)	Structural Engineering Electrical Machines Applied Electronics Industrial Engineering Industrial Metallurgy Production Engineering
	M.Tech (2 years)	Nano Science and Technology Biotechnology Information Technology Textile Technology
	M.Tech (Part Time) (3 years)	Textile Technology
	M.Sc (2 Years)	Applied Mathematics
	M.Sc Integrated (5 Years)	Software Systems Theoretical Computer Science Data Science Fashion Design and Merchandising
	MCA (3 years)	Master of Computer Applications
	MBA (2 years)	Master of Business Administration
	MBA (Part Time) (2 years)	Master of Business Administration
	PGDM (2 years)	Post Graduate Diploma in Management
RESEARCH PROGRAMMES : MPhil / MS / M Tech / PhD in relevant disciplines		

TECH BULLETIN

2015-2016



PSG College of Technology
Peelamedu, Coimbatore-641004

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Foreword

“TECH BULLETIN” is being brought out for the thirteenth consecutive year by PSG College of Technology to highlight the various activities of the institution. In this bulletin, the activities of the institution and the various departments are presented for the year 2015-2016. Readers will find the contents of the bulletin quite informative and useful. I congratulate the efforts of the co-ordinators and all the members of the editorial board for bringing out the bulletin successfully.

Prof.R.Rudramoorthy Ph.D

Principal

TECH BULLETIN - Editorial Board for 2015-2016

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Associate Professor
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Associate Professor
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Department of English

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Department of Mechanical Engineering

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Biomedical Engineering

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Ms.S.Sharmila

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Ms.A.Bharathi

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Mr.P.Sivakumar

Instrumentation and Control Systems Engineering

Ms.M.P. Anbarasi

Mechanical Engineering

Mr.D.Shanmuga Sundaram
Mr.A.Adhiyamaan

Metallurgical Engineering

Mr.G.Venkatesh

Production engineering

Dr.K.Somasundara Vinod
Dr.S.Elangovan

Robotics & Automation Engineering

Mr.T.Subramani

Biotechnology

Ms.A.Rakshika lakshmi

Fashion Technology

Ms.S.Sudha

Information Technology

Ms.N.Archana

Textile Technology

Ms.K.J.Vishnuvardhini

Department Representatives for 2015-2016

Apparel and Fashion Design	Ms.N.Shanthi
Applied Mathematics and Computational Sciences	Dr.R.Vijayalakshmi
Applied Science	Mr.A.Senthilkumar
Chemistry	Mr.S.Rameshkumar Mr.S.S.Subramanian
Computer Applications	Ms.N.Rajeswari
English	Dr.G.Menaka
Humanities	Dr.E.Nandha kumar
Mathematics	Ms.M.Radhiga
Physics	Dr.S.Prasanna
Physical Education	Dr.S.Somasundaramoorthy

From the Editorial Board

The TECH BULLETIN of PSG College of Technology presents the highlights of the college and details of all departments, viz., faculty development, infrastructure updation, sponsored research, doctoral research, testing and consultancy activities, research publications and student activities.

We wish to gratefully thank Dr.R.Rudramoorthy, Principal, Mr. R. Ragupathy, Dean (Administration), Dr.J.V.Ramasamy, Dean (Academic) and Dr.K.Prakasan, Dean (Autonomous functioning) for their valuable suggestions and support in bringing out the bulletin.

ABOUT THE INSTITUTION

1. OVERVIEW

PSG College of Technology is one of the foremost institutions founded by the PSG and Sons Charities Trust. The college was established in the year 1951 and the Founders wisely decided to locate it in the same campus as the PSG Industrial Institute for effective industry institute interaction. The Golden Jubilee of the college was celebrated during the academic year 2001 – 2002 and the Diamond Jubilee during 2011-2012.

PSG College of Technology has been fortunate to have the guidance of illustrious Managing Trustees, Late.Prof.G.R.Damodaran, Late.Shri.G.Varadaraj, Shri.G.R.Karthikeyan, Shri.V.Rajan, Shri G. Rangaswamy and Shri L.Gopalakrishnan and Principals with foresight and far reaching vision. PSG College of Technology has been in the forefront of innovation in technical education. The founder Principal of the college, Dr.G.R.Damodaran, was instrumental in the planned growth of the institution from humble beginnings in 1951, to the present status as a world-renowned technological institution. The college was conferred with the AUTONOMOUS STATUS by the University of Madras from the academic year 1978 – 79, which was continued by the Bharathiar University and subsequently, by Anna University. PSG College of Technology performs excellently with the dedicated service of more than 500 teaching faculty and 300 supporting staff.

Departments

The college has the following departments: Automobile Engineering, Biomedical Engineering, Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Instrumentation and Control Engineering, Mechanical Engineering, Metallurgical Engineering, Production Engineering, Robotics and Automation Engineering, Biotechnology, Fashion Technology, Information Technology, Textile Technology, Computer Applications, Mathematics, Applied Mathematics and Computational Sciences, Apparel and Fashion Design, Physics, Applied Science, Chemistry, English, Humanities and Management Sciences. Totally 78 programmes are offered under various specializations. The overall student strength of the college stands at 8452 which includes 5313 boy students and 3139 girl students. The department of Physical Education and playgrounds are located very close to the hostel premises. A compulsory physical training programme for all the first year students both boys and girls, is being organized for the past several years.

Advanced Centres and Laboratories

There are several advanced centres and laboratories set up with financial support from the Ministry of Human Resources Development, Department of Science and Technology, and other agencies. These include Educational Technology Centre, Computer Centre, CAD/CAM and Virtual Reality Centre, TIFAC-CORE, Engineering Design Centre, Festo-PSG Pneumatic Automation Centre, Laser Centre, Virtual Instrumentation Centre, VLSI Design Centre, Metal Testing and Research Centre, Thin Film Centre, Centre for Non-Formal and Continuing Education, Centre for Sponsored Research and Consultancy, Production and Industrial Engineering Laboratory, Media Laboratory, PSG-Rockwell Center of Excellence in Industrial Automation, Anti Microbial Lab, PSG-LAPP Centre for Excellence in Cable Technology, PSG-L&T Centre for Excellence, Centres for MEMS and Nano Technology and PSG Cognizant Open Source Software Laboratory.

External Collaboration

The courses of the college are recognized all over India and abroad. The college maintains close interaction with several R&D institutions and institutions of higher learning in India and abroad, through institutional network programmes and collaborative research programmes. It also has close collaborative links with industries in the fields of Automotive, Aerospace, Defense, Textile, Machine Tools, Software development, and consumer durables. The college has been the recipient of several prestigious projects and international funding. The college periodically signs Memorandum of Understanding (MoU) with research organizations and industries in order to promote closer interaction between PSG College of Technology and other institutions in technology development, training of students. and curriculum update.

Research Projects

28 research projects were funded by various agencies like AICTE, DRDO, DBT, NIMI, DST, and UGC. An amount of Rs.16.26 Cr. has been received from various funding agencies towards sponsored research programmes. In addition, equipments worth Rs.4.5 crores have been added to various departments.

Conferences / Seminars

Five international conferences, 14 national conferences, 32 short-term courses and 68 workshops were organized by various departments during 2015-16.

PSG - STEP

PSG-Science and Technology Entrepreneurial Park (PSG – STEP) has been set up with the sponsorship of Department of Science and Technology, New Delhi and leading financial institutions like IDBI, ICICI, IFCI and TIIC. PSG-STEP has the prime objective of providing infrastructure support for entrepreneurs in thrust areas of development.

Library

The GRD Memorial Library of PSG College of Technology has a total collection of 2,28,974 books and other reading materials. A total of Rs.1.69 crores was allotted to the library for the academic year 2015-2016. As many as 6665 books and 280 journals were procured in the library during 2015-2016. Online Journals like Science Direct, IEEE-ASPP, ASME, ASCE, SPRINGER, NATURE, ASTM, McGraw Hill, J-Gate and Scopus databases at a cost Rs.36,67,474 are being subscribed. The library has membership with DELNET, New Delhi for augmenting the resources. The annual book exhibition was conducted during September 2015 in the Campus. Twenty one Industries have enrolled as Associate members in the library.

Publications

Publications made by the faculty members of an institute show the vibrant research environment prevailing in the institution. During the academic year 2015-16, the faculty of PSG College of Technology published 506 international journal papers and 24 national journal papers in peer reviewed indexed journals with reputed publishers. They have also published 30 books/chapters for the courses prescribed by various universities. They have also conducted various short term courses for the faculty by experts from IITs and Industry to upgrade their domain knowledge.

Hostel:

Hostel Day was celebrated on 5th March 2016.

Total Hostel Strength: 5560

Main Hostel: 3091

Ladies Hostel: 1979

Additional Hostel: 490

Scholarships

During the academic year 2015 – 16, a sum of Rs.1,61,48,475/- was disbursed as Scholarship from Central / State Government and other agencies and the same was disbursed to 1784 students of Under Graduate and Post Graduate.

A GATE stipend amount of Rs.2,85,38,000/- was transferred by AICTE directly to 255 ME / MTech students.

Websites

The web site of PSG College of Technology is available in the Internet at the following address:

www.psgtech.edu

Apart from this website, the college has an intranet web server. All the information can be accessed within the campus from the following web site:

intranet.psgtech

2. PROGRAMMES OFFERED

Under the Autonomous scheme, the institution offers the following programmes:

Undergraduate Programmes

Programme	Field / Specialization
B.E (4 Years)	Automobile Engineering Biomedical Engineering Civil Engineering Computer Science and Engineering Electrical and Electronics Engineering Electronics and Communication Engineering Instrumentation and Control Engineering Mechanical Engineering Metallurgical Engineering Production Engineering Robotics and Automation Engineering

Programme	Field / Specialization
B.Tech (4 Years)	Biotechnology Fashion Technology Information Technology Textile Technology
B.E (Sandwich – 5 Years)**	Electrical and Electronics Engineering Mechanical Engineering Production Engineering
B.Tech (Part Time – 3½ Years)	Textile Technology
B.Sc. (3 Years)	Applied Sciences Computer Systems and Design

** Sandwich BE Programme is a unique industry-oriented B.E Degree Programme spanning a period of five years in Electrical and Electronics Engineering, Mechanical Engineering, and Production Engineering with intensive in-plant training. The students spend half a day in the industry and half a day in the class room everyday and thus, are exposed to the industrial environment during the study period itself.

Postgraduate Programmes

Programme	Field / Specialization
M.E /M.Tech (2 Years) (FULL TIME)	Automobile Engineering Automotive Engineering
	Civil Engineering Structural Engineering Infrastructure Engineering
	Computer Science and Engineering Computer Science and Engineering Software Engineering
	Electrical and Electronics Engineering Applied Electronics Power Electronics and Drives Embedded and Real-Time Systems
	Electronics and Communication Engineering Communication Systems VLSI Design Wireless Communications Nano science & Technology

Programme	Field / Specialization
	<p>Instrumentation & Control Engineering Control Systems</p> <p>Mechanical Engineering Engineering Design Industrial Engineering Computer Integrated Manufacturing Lean Manufacturing Energy Engineering</p> <p>Metallurgical Engineering Industrial Metallurgy</p> <p>Production Engineering Manufacturing Engineering Product Design and Commerce Virtual Prototyping and Digital Manufacturing</p> <p>Biotechnology Biotechnology</p> <p>Information Technology Information Technology Biometrics & Cyber Security</p> <p>Textile Technology Textile Technology</p>
M.E (Part Time – 3 Years)	<p>Civil Engineering Structural Engineering</p> <p>Electrical and Electronics Engineering Electrical Machines Applied Electronics</p> <p>Mechanical Engineering Industrial Engineering</p> <p>Metallurgical Engineering Industrial Metallurgy</p> <p>Production Engineering Production Engineering</p>
M.Tech (Part Time – 3 Years)	<p>Textile Technology Textile Technology</p>
M.Sc (2 Years)	Applied Mathematics
M.Sc (5 Years)	<p>Software Systems Theoretical Computer Science Data Science Fashion Design and Merchandising</p>

Programme	Field / Specialization
MCA (3 Years)	Master of Computer Applications
MBA (Full Time - 2 Years)	Master of Business Administration
MBA (Part Time – 3 Years)	Master of Business Administration
PGDM (2 Years)	Post Graduate Diploma in Management

Research Programmes

Research programmes leading to MS/PhD Degrees are offered in Automobile Engineering, Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Metallurgical Engineering, Biomedical Engineering, Production Engineering, Computer Science Engineering, Textile Technology, Biotechnology, Instrumentation & Control Engineering, Information Technology, Mathematics, Applied Mathematics, Computer Applications, Physics, Chemistry, and Management Sciences in full-time and part-time schemes.

3. AUTONOMOUS FUNCTIONING

PSG College of Technology was conferred with the status of autonomy by the Madras University on June 07, 1978. The college was functioning as an autonomous college affiliated to Madras University upto 1982. During 1982 – 2001, the college continued its autonomy as an affiliated college under Bharathiar University. From 2002 onwards, the college has been continuing its autonomy under Anna University as an affiliated college. As an autonomous college, the institution has the freedom for determining and prescribing its own courses of study and syllabi, prescribing the rules of admission as per AICTE regulations subject to the policies of the state government, evolving methods of evaluation, conducting examinations and finalizing results for declaration. The college has utilized the autonomous status as a means to achieve higher standards and greater creativity. The status of autonomy is generally reviewed once in 5 years by the University with the help of a committee.

Governance

As an autonomous college, the institution has statutory bodies to ensure proper management of academic, financial and general administrative affairs. The administration and financial affairs are taken care by the Governing Council. The academic affairs are taken care by the statutory bodies, viz., Academic Council, Standing Committee of Academic Council, and Boards of Studies. In addition, the institution has other bodies like Finance Committee, Planning and Evaluation Committee, Board of Examiners, Grievance and Appeals Committee, Complaints cum Redressal Committee, Admission Committee, Malpractices Committee, Student Welfare and Extra Curricular Activities Committee, Research Advisory Committee, and Library Committee.

Meetings of Important Bodies of Autonomous Functioning

Administrative Affairs Meetings	Academic Affairs Governance Meetings		
Governing Council	Board of Studies	Standing Committee	Academic Council
<p>1. 131st Governing Council meeting was held on 08.01.2016</p>	<p>Meetings of boards of studies for Automobile Engineering, Biomedical Engineering, Civil Engineering, Mechanical Engineering, Mathematics, Metallurgical Engineering, Electrical and Electronics Engineering, Instrumentation and Control Engineering, Textile Technology, Biotechnology and Robotics and Automation Engineering were held on 10th October 2015 to prepare the material for 55th Academic Council Meeting</p> <p>Meetings of boards of studies for Electronics and Communication Engineering, Computer Science and Engineering, Fashion Technology, Information Technology, Computer Applications, Production Engineering Physics, Chemistry, Humanities & Languages, Management Sciences, Applied Sciences, Applied Mathematics and Computational Sciences and Apparel & Fashion Design were held on 31st October 2015 to prepare the material for 55th Academic Council Meeting.</p>	<p>1. Standing Committee meeting for the 55th Academic Council meeting was held on 16.12.2015</p>	<p>1. 55th Academic Council meeting was held on 09.01.2016</p>
<p>3. 132nd Governing Council meeting was held on 20.05.2016.</p>	<p>Meetings of boards of studies in Automobile Engineering, Biomedical Engineering, Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering and Robotics and Automation Engineering were held on 26th March 2016 to prepare the material for 56th Academic Council Meeting</p> <p>Meetings of boards of studies for Metallurgical Engineering, Instrumentation and Control Systems Engineering, Production Engineering, Biotechnology, Fashion Technology, Information Technology and Textile</p>	<p>2. Standing Committee meeting for 56th Academic Council meeting was held on 20.04.2016</p>	<p>2. 56th meeting of Academic Council meeting was held on 14.05.2016</p>

Administrative Affairs Meetings	Academic Affairs Governance Meetings		
Governing Council	Board of Studies	Standing Committee	Academic Council
	<p>Technology were held on 2nd April 2016 to prepare the material for 56th Academic Council Meeting.</p> <p>Meetings of boards of studies for Mathematics, Computer Applications, Physics, Chemistry, Humanities & Languages, Management Sciences, Applied Mathematics & Computational Sciences, Apparel & Fashion Design and Applied Sciences were held on 9th April 2016 to prepare the material for 56th Academic Council Meeting</p>		

Governing Council

The Governing Council is the supreme administrative authority of the college. The governing council also has the functions like ratifying the decisions of Academic Council, recommending to Academic Council suitable action on any academic proposals, passing / modifying the results, disposal of appeals and disciplinary matters, etc.

Academic Council

The Academic Council is solely responsible for all the academic matters such as framing of academic policies, approving courses, regulation, syllabi etc. The Academic Council meets atleast once in a semester or twice a year. The members of the Academic Council for the year 2014–2015 are as follows:

Academic Council Members List:

S.No.	Name of the Member	Role
1.	Dr R Rudramoorthy	Chairman & Principal
2.	Dr V Lakshmi Prabha Principal Government College of Technology, Coimbatore - 641 013.	University Nominees
3.	Dr V Abhaikumar Principal and Professor Department of Electronics and Communication Engineering, Thiagarajar College of Engineering, Madurai - 625 015.	
4.	Dr A Rajadurai Professor Department of Production Engineering, Anna University, Chennai – 600 044.	

S.No.	Name of the Member	Role
5.	Dr L S Jayagopal Consultant No.1, Jawahar Nagar, Alagesan Road, ASHS Post, Coimbatore – 641 043.	Engineering Expert
6.	Mr V V Deshmukh Flat 301, A9, Latis Cooperative Housing Society Limited, Near Nutan Polytechnic, Talegaon Chakan Road, Talegaon Daphade, Pune – 410 507, Maharashtra.	Industry Expert
7.	Dr P V Mohanram Principal PSG Institute of Technology & Applied Research, Neelambur Coimbatore – 641 062.	Education Expert
8.	Mr R Nandakumar Manager – Legal Affairs Sri Karthikeya Spinning & Weaving Mills Pvt. Ltd., 484, Kamaraj Road Uppilpalyam Coimbatore 641 015.	Law Expert
9.	Mr V C Thangavel	Controller of Examinations
10.	Dr S Neelakrishnan	HoD, Dept. of Automobile Engineering
11.	Dr C Lakshmi Deepika	Head In-charge, Dept. of Biomedical Engineering
12.	Dr G Sankarasubramanian	HoD, Dept. of Civil Engineering
13.	Dr R Venkatesan	HoD, Dept. of Computer Science and Engineering
14.	Dr P Navaneethan	HoD, Dept. of Electrical and Electronics Engineering
15.	Dr S Subharani	HoD, Dept. of Electronics and Communication Engineering
16.	Dr J Arunshankar	Head In-charge, Dept. of Instrumentation and Control Systems Engineering
17.	Dr K Natarajan	HoD, Dept. of Mechanical Engineering
18.	Dr P Gopalakrishnan	HoD, Dept. of Metallurgical Engineering
19.	Dr K Prakasan	Dean Autonomous Functioning & HoD, Dept. of Production Engineering
20.	Dr B Vinod	Head In-charge, Dept. of Robotics & Automation Engineering

S.No.	Name of the Member	Role
21.	Dr M Ananthasubramanian	Head In-charge, Dept. of Biotechnology
22.	Dr P Kandhavadi	Head In-charge, Dept. of Fashion Technology
23.	Dr K R Chandran	HoD, Dept. of Information Technology
24.	Dr G Thilagavathi	HoD, Dept. of Textile Technology
25.	Dr D Vijayalakshmi	Head In-Charge, Dept. of Apparel & Fashion Technology
26.	Dr R Nadarajan	HoD, Dept. of Applied Mathematics & Computational Sciences
27.	Dr C K Shashidharan Nair	HoD, Dept. of Applied Science
28.	Dr M Kumaravel	HoD, Dept. of Chemistry
29.	Dr A Chitra	HoD, Dept. of Computer Applications
30.	Mr S P Suresh Kumar	Head In-charge, Dept. of English
31.	Dr R Sreenivasan	HoD, Dept. of Humanities
32.	Dr R Nandagopal	Director, Management Sciences
33.	Dr R Arumuganathan	HoD, Dept. of Mathematics
34.	Dr M D Kannan	Head In-charge, Dept. of Physics
35.	Dr J V Ramasamy Dean - Academic	Four teachers of the college representing different categories of the teaching staff.
36.	Dr A Kandaswamy Dean - Industrial Research & Development	
37.	Dr V Ramamurthy Professor, Dept. of Biotechnology	
38.	Dr R Anitha Associate Professor, Applied Mathematics & Computational Sciences	
39.	Mr R Ragupathy	Dean Administration
40.	Dr V Jaiganesh Research Coordinator	Member Secretary
41.	Dr S Rajasekaran Visiting Professor, Dept. of Civil Engineering	Special Invitees
42.	Mr D.Muralidhar Training Manager, PSG Industrial Institute.	

S.No.	Name of the Member	Role
43.	Dr V Thilagam Associate Professor PSG Institute of Management.	Special Invitees
44.	Ms A Aishwarya	Final Year – BE Mechanical Engineering (Roll No: 12M103)
45.	Mr K Yoga Viknesh	Final Year – BE EEE (Roll No: 12E164)
46.	Ms V S Meera	Final Year – MSc Theoretical Computer Science Roll No. 11PT28.
47.	Ms P Shenbagam	Final Year – MTech Biotechnology (Roll No: 14MG13)

Main Agenda for the 55th Academic Council Meeting

Salient points discussed and approved in the meeting:

- ❖ Finalization of UG scheme for 2015 regulations; **Regular** (3rd semester to 8th Semester) and **Sandwich** (3rd semester to 10th semester).
- ❖ Finalization of scheme for BSc Applied Science of 2015 regulations (3rd semester to 6th semester).
- ❖ Finalization of scheme for MSc Fashion Design & Merchandising of 2015 regulations (3rd semester to 10th semester)
- ❖ Introduction of new electives for UG/PG and research electives.
- ❖ Introduction of one credit courses for UG/PG courses.

Main Agenda for the 56th Academic Council Meeting

Salient points discussed and approved in the meeting:

- ❖ Finalization of UG detailed syllabi for 2015 regulations, **Regular** (3rd semester to 8th Semester) and **Sandwich** (3rd semester to 10th semester).
- ❖ Finalization of detailed syllabi for BSc Applied Science of 2015 regulations (3rd semester to 6th semester).
- ❖ Finalization of detailed syllabi for MSc Fashion Design & Merchandising of 2015 regulations (3rd semester to 10th semester).
- ❖ Introduction of new electives for UG/PG and research electives.
- ❖ Introduction of one credit courses for UG/PG courses.

Standing Committee of Academic Council

The main functions of the standing committee include scrutinizing and finalizing the draft regulations and syllabi recommended by Boards of Studies. The same is recommended to the Academic Council for finalizing the agenda for Academic Council meeting. The standing committee meets atleast once, a month before the Academic Council meetings. The constitution of the standing committee is as follows:

1. The Principal – Chairman
2. Heads of Departments / Chairmen of Board of Studies
3. Any member of Academic Council co-opted by the Chairman for any meeting.

Boards of Studies

Each group of allied branches of engineering / science has a Board of Studies. The main functions of the Board of Studies are proposing new courses, curricula and syllabi, modifications, changes or repeat of existing ones to the Academic Council and advising the Academic Council on all matters related to their area of interest. The college has the following Boards of Studies:

1. Board of Studies in **Automobile Engineering**
(Programmes: B.E – Automobile Engineering, ME- Automotive Engineering)
2. Board of Studies in **Biomedical Engineering**
(Programme: B.E – Biomedical Engineering)
3. Board of Studies in **Civil Engineering**
(Programmes: B.E – Civil Engineering,
M.E – Structural Engineering, M.E – Infrastructure Engineering)
4. Board of Studies in **Computer Science and Engineering**
(Programmes: B.E – Computer Science and Engineering,
M.E - Computer Science and Engineering, M.E- Software Engineering)
5. Board of Studies in **Electrical and Electronics Engineering**
(Programmes: B.E–Electrical and Electronics Engg., B.E – SW – Electrical and Electronics Engg.,
M.E – Applied Electronics, M.E–Power Electronics and Drives, M.E – Electrical Machines,
ME – Embedded Real-Time Systems)
6. Board of Studies in **Electronics and Communication Engineering**
(Programmes: B.E – Electronics and Communication Engineering,
M.E – Communication Systems, M.E – VLSI Design, M.E – Wireless Communication, M.Tech
Nano Science and Technology)
7. Board of Studies in **Instrumentation and Control Systems Engineering**
(Programmes: B.E – Instrumentation and Control Engineering, M.E – Control System)
8. Board of Studies in **Mechanical Engineering**
(Programmes: B.E – Mechanical Engineering, B.E – SW – Mechanical Engineering,
M.E – Engineering Design, M.E – Industrial Engineering,
M.E – Computer Integrated Manufacturing, M.E. – Lean Manufacturing, M.E Energy
Engineering)
9. Board of Studies in **Metallurgical Engineering**
(Programmes: B.E – Metallurgical Engineering, M.E – Industrial Metallurgy)
10. Board of Studies in **Production Engineering**
(Programmes: B.E – Production Engg., B.E – SW–Production Engg.,
M.E – Manufacturing Engineering, M.E – Product Design and Commerce,
M.E – Virtual Prototyping and Digital Manufacturing)
11. Board of Studies in **Robotics & Automation Engineering**
(Programmes: B E Robotics & Automation Engineering)

12. Board of Studies in **Biotechnology**
(Programme: B.Tech Biotechnology, M.Tech- Biotechnology)
13. Board of Studies in **Fashion Technology**
(Programmes: B.Tech – Fashion Technology)
14. Board of Studies in **Information Technology**
(Programmes: B.Tech – Information Technology,
ME- Biometrics & Cyber Security, M.Tech – Information Technology)
15. Board of Studies in **Textile Technology**
(Programmes: B.Tech – Textile Technology, M.Tech – Textile Technology)
16. Board of Studies in **Computer Applications**
(Programme: Master of Computer Applications)
17. Board of Studies in **Applied Mathematics & Computational Sciences**
(Programmes: BSc Computer Systems and Design, MSc Applied Mathematics, MSc Software Engineering, MSc Theoretical Computer Science, MSc Data Science)
18. Board of Studies in **Mathematics**
(Programmes: All BE/BTech & ME/MTech Maths Courses)
19. Board of Studies in **Physics**
(Programmes: All BE/BTech & ME/MTech Physics Courses)
20. Board of Studies in **Chemistry**
(Programmes: All BE/BTech & ME/MTech Chemistry Courses)
21. Board of Studies in **Humanities & Languages**
(Programmes: All BE/BTech & ME/MTech Humanities & Languages Courses)
22. Board of Studies in **Applied Science**
(Programmes: BSc Applied Science)
23. Board of Studies in **Apparel & Fashion Design**
(Programmes : MSc Fashion Design and Merchandising)
24. Board of Studies in **Management Sciences**
(Programme: Master of Business Administration, PGDM)

Appeals and Grievances Committee

An Appeals and Grievances committee is functioning in the college to redress the grievances of the students related to academic matters. The students can make representations regarding grievances related to academic matters including continuous assessment and terminal examinations through the respective tutor / senior tutor / HoD and if necessary, to the Principal. The teachers, tutors and Principal will take measures to redress genuine grievances. When the students are not satisfied with the outcome of their representations, they can make representations to the Appeals and Grievances committee through their senior tutor / HoD and the Principal.

The Appeals and Grievances Committee shall consider the appeals and grievances petitions and pass suitable orders as it deems fit and communicate the same to the persons concerned.

Members of the Appeals and Grievances Committee for the year 2015– 2016:

1. Dr R Arumuganathan, HOD, Maths, PSGCT, (Chairman)
2. Mr R Ragupathy, Dean Administration, (PSGCT & PTC)
3. Dr K Prakasan, HoD, Production Engineering, PSGCT
4. Dr G Thilagavathi, HoD, Textile Technology, PSGCT
5. Dr K Natarajan, HoD, Mechanical Engineering, PSGCT
6. Mr S Kuppusamy, Vice President, PSG Foundry, Neelambur Division)
7. Mr V C Thangavel, Controller of Examination, PSGCT
8. Mr R Babu, Law Officer, PSG Industrial Institute

Research Advisory Committee

Research Advisory Committee (RAC) has the functions like approving, monitoring and reviewing of the future research projects, research budgets, and requirement of imported items for research projects. Applications requesting for issue of Essentiality Certificate and Central Excise / Customs Duty Exemption Certificates are scrutinized by the RAC and forwarded to the University. The members of the RAC for the year 2015-2016 are given below:

1. Dr.R.Rudramoorthy
PSG College of Technology, Coimbatore – 641 004
Principal
2. Dr.J.V.Ramasamy
Dean Academic
PSG College of Technology, Coimbatore
Member
3. Dr.P.V.Mohanram
Principal,
PSG Institute of Technology and Applied Research,
Neelambur ,Coimbatore – 641 014
Member
4. Dr.A.Kandaswamy
Dean, Industrial Research & Development
PSG College of Technology, Coimbatore – 641 004
Member
5. Dr.K.Prakasan
Prof.& Head, Dept. of Production Engineering
PSG College of Technology, Coimbatore – 641 004
Member
6. Dr.V.Jaiganesh
Research Co-ordinator
PSG College of Technology, Coimbatore – 641 004
Member

7. Dr.G.Ranganathan
Chief Executive Officer and Director,
Rover Components Ltd., K.Vadamadurai(PO), Coimbatore – 641 017
Member
8. Dr.M.Nataraj
Professor, Department of Mechanical Engineering,
Government College of Technology, Coimbatore – 641 013
Member
9. Dr.G.Sankarasubramanian
Professor & Head, Dept. of Civil Engineering
PSG College of Technology, Coimbatore – 641 004
Member
10. Dr.C.K.Shashidharan Nair
HoD, Department of Applied Science
PSG College of Technology, Coimbatore – 641 004
Member
11. Dr.P.C.Angelo
Dean, CNCE
PSG College of Technology, Coimbatore – 641 004
Special Invitee
12. Dr.V.Ramamurthy
Professor, Dept. of Biotechnology
PSG College of Technology, Coimbatore – 641 004
Special Invitee
13. Dr.S.Saravanan
Asso.Professor, Dept. of Production Engineering
PSG College of Technology
Special Invitee
14. Mr.M.Vinod
Research Scholar(QIP), Dept. of Production Engineering
PSG College of Technology, Coimbatore – 641 004
Special Invitee

PSG TECH - ALUMNI ASSOCIATION

The three main components for the success of any educational Institution are the student performance, faculty commitment and management support. Another important external factor that brings name and fame to the institution is the strength of the alumni and their continuous association with the alma mater which add to the reputation and prosperity of the institution. PSG College of Technology, right from its inception in the year 1951, has the pride of having a very strong Alumni network. PSG Tech Alumni Association through its full fledged office at Coimbatore and through its chapters spread over the country and abroad has been systemically carrying out the task of bringing together the alumni and establishing their continuous rapport with the institution.

The founder Principal of PSG College of Technology Prof. G. R. Damodaran took special care to enhance the reputation of PSG Tech Alumni Association, with the strong support of the PSG Management and the continuous involvement of the Principal and the faculty of PSG college of Technology. The alumni association is carrying out various tasks throughout the year. These tasks aim not only at bringing the members to a close family atmosphere but also carrying out various service activities.

Every year the PSG Tech Alumni Association at Coimbatore organizes events like Alumni Day, Young Alumni Meet, Technical Meetings, Entrepreneurship development programmes and product exhibitions. The association has been conducting a state level talent test called GRD Talent test for the 9th and 10th standard school students for the past 23 years. The association provides financial support to poor students through scholarships. It has been conducting a state level GRD Inter Collegiate Tamil Debate for the college students for the past 8 years. It is operating Alumni – instituted awards to be given for students of academic excellence.

While the day- to – day affairs of the Alumni Association are managed by a set of officer-bearers headed by the President, the overall directive and policies are decided by an executive council. The executive council meets once in two months. Similarly, every chapter has its own office bearers and a chapter – council functioning under a Chairman.

Office Bearers

Founder Patron	:	Dr.G.R.Damodaran
Chief Patron	:	Mr.L.Gopalakrishnan Managing Trustee PSG & Sons' Charities
Patron	:	Dr.R.Rudramoorthy Principal, PSG CT & PTC
President	:	Mr.C.Raviselvan BE '82 Director, GEM Equipments Ltd Coimbatore – 641407
General Secretary	:	Dr.M.Arasu BE'95 Head, Dept. of Foundry Tech & Automobile Engg., PSG Polytechnic College Coimbatore – 641 004

1965 BE BATCH GOLDEN JUBILEE REUNION

The 1965 BE Batch Golden Jubilee Reunion was held on 26th to 28th of June 2015. The reunion was attended by 66 members and their family. The welcome address was presented by Mr. R. Palaniswamy, President, 1965 Golden Jubilee Reunion. Dr. R. Rudramoorthy, Principal, PSG CT and Mr.V.Sriram, President, PSG Tech Alumni Association were the guest of honour for the occasion. On the occasion of the Golden Jubilee Reunion, a scholarship endowment fund of Rs.20 Lakhs was instituted. The interest accrued from the deposit money to be distributed to the needy and deserving students. The batch mates went for a picnic to Ooty on June 27, 2015 to rejuvenate their memorable happenings.

1990/91 BE/B.TECH BATCH SILVER JUBILEE REUNION

Silver Jubilee reunion of 1990/91 batch was held on 31st July & 1st, 2nd August 2015. During the occasion, an endowment scholarship fund of Rs.6, 30,770 was established on 31st July 2015 to needy and deserving students.

1990 Diploma Batch Silver Jubilee Reunion

Silver Jubilee Alumni Meet of 1990 Diploma batch of PSG Polytechnic College was celebrated on 9th May 2015. Dr.B.Giriraj, Principal, PSG PTC was the Chief Guest of the function. Mr.R.S.Krishnaswamy, Vice president, PSG Tech Alumni Association delivered the felicitation address. Around 300 members including family members attended the function. On the occasion of the Silver Jubilee Reunion, they established an endowment scholarship fund of Rs.1 lakh for Polytechnic College students.

Diamond Jubilee Reunion:

The 1955 Batch, the first batch to graduate from PSG College of Technology had their Diamond Jubilee Reunion. 20 Senior Alumni with their family members took part in the reunion. Honours were done by the Vice Presidents of Alumni Association. The Special address was given by Dr.K.Kasthurirangaian of 1955 BE Batch, who at the end presented a cheque for Rs.10 lakhs as Endowment for Student Scholarship.

DEPARTMENT OF AUTOMOBILE ENGINEERING

ABOUT THE DEPARTMENT

The Automobile Engineering Department was established with an undergraduate programme in 1999 and postgraduate programme in 2009. The department is well equipped with laboratories like Engine Testing and Diagnostics Center, Vehicle Servicing Laboratory, Automotive Styling laboratory, Automotive Sensors and Controls Laboratory, Automotive Electrical and Electronics Laboratory, Automotive Systems Simulation Laboratory, CAD/CAM Centre, Vehicle Design Centre, Heat Power Engineering Laboratory and Heat Transfer Laboratory. The department faculties have published one paper in national and 17 papers international journals during the last academic year.

The centre for Automotive Research and testing (CART) was inaugurated on 03.12.2015. The centre is equipped with various testing equipment such as transmission testing variable compression ratio with multi fuel option, engine test setup, etc., On the same day, the PSG-BOSCH Engine dyno Laboratory – powered by Ashok Leyland, was inaugurated and is located within CART. This lab consists of the latest common ratio diesel engine sponsored by Ashok Leyland and coupled to a dynamometer sponsored by Robert Bosch. This lab is equipped to test the latest common rail diesel engines and gives practical experience to the students as they will now be able to work on real time embedded systems. The software laboratories in the department are equipped with the latest hardware and software packages. The software packages include Pro-Engineer, UNIGRAPHICS, SIEMENS NX Team center, Solid Edge, Solid Works for computer aided design, ANSYS, ADAMS, AME-SIM, ABAQUS, STAR CCM+ ,Siemens PLM Software Tecnomatix Software, Siemens PLM Software JT-Open, Altair Hyper Works Software, MSC. Software - Motion Bundle Software, MSC. Software - FEA Bundle Software, Math Works PACE Bundle, and CATIA V6 for simulation and analysis. These benefit the students and the faculty to pursue their research and project work. Additional facilities in the department include equipment such as Sensor tutor, Multi point fuel injection engine with eddy current dynamometer, CVT (continuously varying transmission) and automatic transmission. The department has a separate library with a collection of various books, journals, and magazines.

During this academic year, the department along with AICTE sponsorship had organized one SWSS program, two national Seminars, nineteen national Workshops, and one Industry Institute Interaction program. A total of twenty one training sessions were handled by our faculty along with the faculty Anna University for Renault Nissan Technology and Business Centre India (RNTBCI) as part of their CSR activities, for Daimler India Commercial Vehicles and for Robert Bosch. The department also organized four one credit courses and one National Conference on Advances in Vehicle Technology.

The department is an active member of the Society of Automotive Engineers (SAE). The SAE collegiate chapter takes care of SAE activities that include guest lectures by eminent personalities and industrial visits to renowned industries. SAE also plays a very important role in mobilizing student participation by conducting various quiz competitions and seminars. The SAE Collegiate Chapter also facilitates the students to take part in the SAE competitions such as SAE-Baja, Supra FSAE & SAE Efficycle.

BAJA BHAIS is our college's official off-road racing team. The team of 25 members participated in SAE Baja, the premier engineering competition for automotive engineers, an off-road ATV building event in which over 158 colleges from all around India participated, and was held in Pithampur, Madhya Pradesh. This was our **eighth year of participation in India**. The team has been consistently successful in winning various awards and 2016 saw us clinching **First place in overall Static events, second place in Engineering Design, seventh place in Cost event, eleventh place in Acceleration and Overall in the 9th position**. This year the team has registered for SAE Baja International event to be held at Rochester, USA in June 2016. We have been seeking advice through international forums

and consistently improving the design methodology in all aspects of engineering in order to keep pace with the international teams from around the world. Formula Student India (FSI) is also our college's official racing team. The team of 14 students participated in month of January 2016. Among the 52 teams, the team Pegasus Racing cleared the technical inspection and participated in the static and dynamic events and clinched the **First position in the SKID PAD test and sixth position in the endurance event**. The team was sponsored eight lakhs officially by **Roots Industries, Coimbatore**.

In addition to the SAE activities, the Automobile Engineering Association (AEA) actively conducts various traffic awareness programmes, and guest lectures. The department maintains a close liaison with a number of universities and industries within and outside the country through faculty research and collaborative projects.

The department also offers consultancy services in chassis design, engine design, finite element analysis and computational fluid dynamic simulations, engine testing, alternative fuels performance study, etc. In addition, several new laboratories are being set up in the near future, including two and three wheelers laboratory, fuel testing laboratory, advanced automotive electronics laboratory and a research centre for alternate fuels, thus enabling future research in the automotive field. Students are the strength of the department and they are placed in highly reputed industries, in both core automotive and software companies (74 % placement in UG and 42% in PG).

A brief on research activities

The department is actively involved in various research areas such as new engine technologies (low heat rejection engines, lean burn combustion engines, and variable compression ratio engines), plug-in-hybrid vehicles, automotive emissions, automotive materials, automotive electronics, design for manufacture, etc.

Major areas of research

- Fuel cells
- Emission
- Alternate fuels
- Automotive materials
- In-cylinder flow analysis
- Noise control
- Surface engineering
- Plug-in hybrid electric vehicles
- Hydropneumatic suspension system
- New engine testing/development
- Advanced vehicle system design
- Automotive design and styling

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr. S. Neelakrishnan, Ph.D Professor & Head	snk@aut.psgtech.ac.in	2008	Design for manufacture and assembly, systems simulation, lean manufacturing
2.	Dr.P.K.Rajesh, Ph.D Professor	pkp@aut.psgtech.ac.in	2010	Vehicle development process, Intelligent vehicle technology, Automotive ergonomics and safety
3.	Mr.R. Ravichandran, M.Tech Associate Professor	rrc@aut.psgtech.ac.in	2008	Vehicle components design, vehicle dynamics, transmission system design
4.	Dr. M.Subramanian,Ph.D Associate Professor	msn@aut.psgtech.ac.in	2013	Composite materials, Automotive embedded systems, automotive acoustics
5.	Dr. P. Karthikeyan, Ph.D Associate Professor	apk@aut.psgtech.ac.in	2007	Renewable Energy, Fuel Cell, Heat transfer and Fluid Mechanics, CFD, Thermodynamics
6.	Dr. V. M. Murugesan, Ph.D Assistant Professor (Sl.Gr)	vmm@aut.psgtech.ac.in	2000	Automobile engineering, automotive chassis & transmission, Automotive electronics & electrical systems, Automotive Motor Transport
7.	Ms. D. Rekha, M.E Assistant Professor (Sr.Gr)	dra@aut.psgtech.ac.in	2002	Automotive transmission, Finite element analysis, Engine and vehicle servicing
8.	Mr.N.Ganesh Kumar M.E Assistant Professor (Sl.Gr)	gkn@mec.psgtech.ac.in	2010	Smart manufacturing, lean six sigma, product life-cycle management, quality engineering
9.	Mr.M.P.Bharathimohan, M.E Assistant Professor (Sr.Gr.)	mpb@aut.psgtech.ac.in	2011	Automobile engineering, Automotive engines & Transmission, Vehicle maintenance and testing
10.	Mr. Benjamin Shiloh Davidson, MS Assistant Professor(Sr.Gr.)	bsd@aut.psgtech.ac.in	2010	Metrology and Quality Engineering, Manufacture of automobile components, Production technology
11.	Mr. R. Karthikeyan, M.E Assistant Professor(Sr.Gr.)	kkp@aut.psgtech.ac.in	2010	Engineering Design, Finite Element Analysis, Metrology & Quality Control
12.	Mr.M.Karthikeyan, M.E Assistant Professor	mkk@aut.psgtech.ac.in	2011	Engines, Vehicle Dynamics, Automotive Ergonomics,
13.	Mr.R.Suresh Kumar, M.E Assistant Professor	rsk@aut.psgtech.ac.in	2011	Automotive electronics, Hybrid vehicles, Control systems

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
14.	Mr.J.Niresh, M.E, MBA Assistant Professor	jnr@aut.psgtech.ac.in	2011	Automotive electronics, Automotive infotronics, Automotive embedded systems
15.	Mr.V.Magesh Kannan, M.E Assistant Professor	mk@aut.psgtech.ac.in	2011	Thermal engineering, Heat and master, Fluid mechanic
16.	Mr.K.P.Devakaran, M.E Assistant Professor	kpd@aut.psgtech.ac.in	2013	Mechatronics, Automotive electronics, Automotive Emissions NVH

2. FACULTY DEVELOPMENT

2.1 Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1.	Mr.R.Ravichandran	Ph.D	2009, Ongoing
2.	Ms.D.Rekha	Ph.D	2011, Ongoing
3.	Mr.N.Ganesh Kumar	Ph.D	2011, Ongoing
4.	Mr.M.P.Bharathimohan	Ph.D	2009, Ongoing
5.	Mr. Benjamin Shiloh Davidson	Ph.D	2011, Ongoing
6.	Mr.R.Karthikeyan	Ph.D	2011, Ongoing
7.	Mr.M.Karthikeyan	Ph.D	2012, On going
8.	Mr.J.Niresh	Ph.D	2012, On going
9.	Mr.V.Magesh Kannan	Ph.D	2012, On going
10.	Mr.K.P.Devakran	Ph.D	2015, On going

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr.S. Neelakrishnan Dr.P.Karthikeyan Ms.D.Rekha Mr.M.Karthikeyan Mr. V.Magesh Kannan	SWSS on Automobile Engineering - Recent Innovations In Engines, Power Train, Emission Measurement And Alternate Fuels	AICTE	07.06.2015 - 20.06.2015
2.	Mr. R. Suresh Kumar	Vehicle Management Systems Vehicle Diagnostics Systems and Project Discussions.	Daimler Blue Collar Associates at Daimler India Commercial Vehicles, Chennai	07.06.2015 05.07.2015 11.07.2015 18.07.2015 25.07.2015 23.08.2015 30.08.2015 06.09.2015 20.09.2015 26.09.2015 06.10.2015 17.10.2015

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
3.	Dr.S.Neelakrishnan Dr.P.K.Rajesh	Workshop on Free demo and overview on PLM using teamcenter	PLM Siemens Coimbatore	16.06.2015
4.	Dr. S. Neelakrishnan Mr. R. Ravichandran Mr.Benjamin ShilohDavidson	Training Programme on Automobile Basics	Robert Bosch Engineering and Business Solutions Limited, Coimbatore	24.06.2015
5.	Dr.P.K.Rajesh Mr. V.M. Murugesan Ms.D.Rekha	Training Programme on Automobile Basics		25.06.2015
6.	Dr.S.Neelakrishnan Dr.P.K.Rajesh	Awareness workshop on Transportation and mobility design and styling	-	26.06.2015
7.	Dr.M. Subramanian Mr. R Ravichandran Mr.Benjamin ShilohDavidson	Training Programme on Automobile Basics	Robert Bosch Engineering and Business Solutions Limited, Coimbatore	07.07.2015
8.	Dr.P.K.Rajesh Dr. V.M. Murugesan Ms.D.Rekha			08.07.2015
9.	Dr.M.Subramanian Dr. V.M. Murugesan	Training Programme on Automobile Basics		21.07.2015
10.	Dr.P.K.Rajesh Ms.D.Rekha Mr.M.Karthikeyan			22.07.2015
11.	Dr.S.Neelakrishnan Dr.P.K.Rajesh, Mr.M.Karthikeyan,			Workshop on Demo on PTC Creo Customization
12.	Dr. V.M. Murugesan Ms.D.Rekha Mr.M.Karthikeyan	Training Programme on Automobile Basics	Robert Bosch Engineering and Business Solutions Limited, Coimbatore	20.08.2015
13.	Dr.P.K.Rajesh Dr.M.Subramanian			21.08.2015
14.	Mr.M.Karthikeyan	Vehicle Dynamics	Sri Krishna College of Engineering and Technology, Coimbatore	16.09.2015
15.	Mr.R. Suresh Kumar	Automotive Electrical & Electronics Systems		
16.	Dr.M.Subramanian	Recent Development In Automotive Transmission System		18.09.2015
17.	Dr. V.M.Murugesan	Workshop on Electronic Engine Management	Robert Bosch Engineering and Business Solutions Ltd Coimbatore	21.09.2015
18.	Dr. S. Neelakrishnan	Training programme on Employability Skill Enhancement	Anna University and Renault Nissan Technology and Business Centre India (RNTBCI)	22.09.2015 - 26.09.2015

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
			Automobile Engineering	
19.	Dr. S. Neelakrishnan,	National workshop on Trends in Global Textile Testing	SDL Atlas Ltd, UK, Textile Technology	23.09.2015
20.	Dr.S.Neelakrishnan Dr.V.M.Murugesan	Technical lecture on Automobile crash repair technology	PSG SAE Collegiate Chapter	06.10.2015
21.	Dr.S.Neelakrishnan	Seminar-cum-workshop on business opportunities and products manufacturing using coir needle felt	Textile Technology	31.10.2015
22.	Dr.S.Neelakrishnan, Mr. R. Suresh Kumar Mr. J. Niresh	Hands on workshop on Automotive Electric Devices Modeling	Alfa Research development Tirupur	27.11.2015- 28.11.2015
23.	Dr.V.M.Murugesan	Workshop on Intelligent Safety systems	PSG CNCE	12.12.2015
24.	Mr. N. Ganesh Kumar	One day workshop on Creative Teaching – Bloom’s Taxonomy	PSG CARE	10.01.2016
25.	Dr.P.K.Rajesh, Dr.V.M.Murugesan Mr.M.Karthikeyan	Guest lecture on latest innovations in automobile engineering & valeo innovation challenge 2016	PSG SAE Collegiate Chapter & Automobile Engineering Association	13.01.2016
26.	Dr.S.Neelakrishnan	Inauguration of centre of Excellence for industrial/ home textiles	PSGTECHS COE INDUTECH	21.01.2016
27.	Mr. N .Ganesh Kumar	Anna University Evaluator for Foundation Skills in Integrated Product Development	Cycle II - Anna University and NASSCOM in association with CIT	23.01.2016
28.	Dr.S.Neelakrishnan Mr. J. Niresh Mr.K.P.Devakaran	Seminar onAutomotive Embedded Systems and Communication Protocols	PSG CT	13.02.2016
29.	Mr. N .Ganesh Kumar	40 hours training in Green Belt lean six sigma certification	PSG CT	13.02.2016- 21.02.2016
30.	Mr.V.Magesh Kannan	One credit course on Fuel Injection System	Robert Bosch	22.02.2016 25.04.2016
31.	Mr. N .Ganesh Kumar	Anna University Master Certified Trainer for Foundation Skills in Integrated Product Development	Cycle III - Anna University &NASSCOM in association with University College of Engineering, Nagercoil	26.03.2016 - 30.03.2016
32.	Mr. N. Ganesh Kumar	National workshop on Google Moodle	PSG CARE	22.04.2016
33.	Dr.S.Neelakrishnan Dr.V.M.Murugesan	National workshop on intelligent Vehicle initiatives	TEQIP- Phase -II PSG CT	22.04.2016- 23.04.2016

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
	Mr. R. Suresh Kumar Mr. J. Niresh Mr.K.P.Devakaran			
34.	Dr.S.Neelakrishnan Dr.P.K.Rajesh	Industry –Institute-Interaction Seminar on Role of Product Lifecycle Management (PLM) in Automobile Industries	TEQIP II, PSG CT	30.04.2016
35.	Mr. N. Ganesh Kumar	One credit course on integrated product development for All UG Engineering Programmes (280 students enrolled)	Anna University and NASSCOM	10.05.2016-13.05.2016
36.	Dr.S.Neelakrishnan Dr.P.K.Rajesh Mr. R. Suresh Kumar Mr. J. Niresh	National conference on Advances in Vehicle Technology	PACE &General MotorsBangalore	13.05.2016

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1.	Mr.R.Suresh Kumar Mr.J.Niresh Mr.K.P.Devakaran	MSO 3000 series, MSO 4000 series equipments & the related serial bus protocols	PSG CT	12.06.2015-13.06.2015
2.	Mr.K.P.Devakaran	Training programme on COMSOL Multiphysics	PSG CT	19.06.2015
3.	Dr.V.M.Murugesan Mr.M.Karthikeyan Mr.K.P.Devakaran	International seminar on Vehicle dynamics	SAE INDIA Amrita University, Coimbatore	09.07.2015-11.07.2015
4.	Dr.P.Karthikeyan Mr.K.P.Devakaran	Workshop on Research Enhancement	PSG CT	23.07.2015
5.	Mr.R.Karthikeyan Mr.R.Suresh Kumar	Workshop on Creativity and Innovation	PSG CT	24.07.2015
6.	Ms.D.Rekha Mr.R.Karthikeyan	Workshop on Engineering Critical Thinking with Practical Applications	PSG CT	11.08.2015-14.08.2015
7.	Mr.Benjamin Shiloh Davidson Mr.M.Karthikeyan	Workshop on High Performance Computing	PSG CT	12.08.2015
8.	Mr.Benjamin Shiloh Davidson Mr.M.Karthikeyan	Training programme on PARAM SHAVAK	PSG CT	13.08.2015-14.08.2015
9.	Dr.P.K.Rajesh	Academic Leadership Programme for TEQIP Institutions	IIM Kozhikode	21.09.2015-26.09.2015
10.	Mr. N. Ganesh Kumar	Workshop on "Foundation Skills in Integrated Product Development" by NASSCOM	Anna University, Chennai	27.09.2015 - 01.10.2015

S.No.	Name of faculty	Programme	Organizer	Period
11.	Dr.S.Neelakrishnan	Workshop on NPTEL PLC	IIT Madras, Chennai	29.10.2015
12.	Mr.R.Karthikeyan	International Symposium on vision 2025- Global Challenges & opportunities in steel industry	PSG CT	14 .11.2015-16.11.2015
13.	Mr.Benjamin Shiloh Davidson	Workshop on Foundation skills to integrated product development	PSG CT	23.11.2015-27.11.2015
14.	Mr.R.Ravichandran	Workshop on Spatial Visualization	PSG CT	04.12.2015
15.	Dr.M.Subramanian	Workshop on Active Learning Promoting engagement in the classroom		
16.	Dr.P.Karthikeyan	Workshop on Mentoring faculty towards Effectiveness		05.12.2015
17.	Mr.K.P.Devakaran	FDP on control Engineering Analysis & Design with MATLAB/SIMLINK	Indian Institute of Space Science and Technology, Thiruvananthapuram	15.12.2015-18.12.2015
18.	Mr.R.Karthikeyan	Training programme on Durability Assessment and Crack Growth Simulation Using Fem	PSGCT	11.01.2016-13.01.2016
19.	Dr.P.K.Rajesh	International conference on Advances in Bioprocess Engineering and Technology 2016	Heritage Institute of Technology, Kolkata	20.01.2016-22.01.2016
20.	Mr.V.Magesh Kannan	FDP on Learning Improvement Techniques	IIT Madras	28.01.2016-30.01.2016
21.	Mr. N.Ganesh Kumar	Workshop on India Great Educational Fair Program	Afairs Exhibition &Media, Dubai	12.02.2016-15.02.2016
22.	Dr.P.K.Rajesh	An Outreach Workshop for the Prime Minister's Fellowship Scheme for Doctoral Research	PSGCT	18.02.2016
23.	Dr.P.K.Rajesh	3 rd world summit on Accreditation (WOSA -2016)	National Board of Accreditation of India, New Delhi	18.03.2016-20.03.2016
24.	Mr.K.P.Devakaran	Train – the Trainers Programmes Foundation skills in integrated development	Anna University NASSCOM PSGCT	26.03.2016-30.03.2016
25.	Mr.M.Karthikeyan Mr.R.Suresh Kumar	National workshop on Google Moodle	PSG CARE	22.04.2016
26.	Mr.M.P.Bharathi mohan	Training programme on implementation of 5S in Laboratory	PSGCT	20.04.2016-26.04.2016

S.No.	Name of faculty	Programme	Organizer	Period
27.	Mr. N.Ganesh Kumar	Train the trainer – 5S Workplace management	Quality circle forum of India PSG IM	28.04.2016-29.04.2016
28.	Mr.M.Karthikeyan Mr.R.Suresh Kumar Mr.J.Nires	FDP on TEQIP Phase II sponsored on Outcome Based Education	PSGCT	30.04.2016
29.	Mr. N.Ganesh Kumar	One credit course on Integrated New Product Development	PSGCT	10.05.2016-28.05.2016

2.4.Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Dr.M.Subramanian	National workshop	Career Opportunities in Automobile Engineering	Government Polytechnic Technology, Coimbatore	27.07.2015
2.	Dr.P.Karthikeyan	National workshop	Fuel Cell Technology	PSG IAS, Coimbatore	03.09.2015
3.	Mr. N.Ganesh Kumar	National seminar	Quality of Engineering Education	Pricol, Coimbatore	04.12.2015
4.	Dr.V.M.Murugesan	FDP	Thermal Engineering	Nehru Institute of Engineering and Technology, Coimbatore	07.12.2015
5.	Mr. N.Ganesh Kumar	National workshop	Creative Teaching Series - Bloom's Taxonomy	PSG CARE, Coimbatore	19.12.2015
6.		National seminar	Quality Education	ASQ India and Pricol	21.12.2015
7.	Dr.M.Subramanian	National seminar	Automotive Component Design	SNS College of Technology, Coimbatore	23.01.2016
8.	Dr.P.Karthikeyan	Keynote talk for National workshop	Nanomaterials for Energy Applications”	Anna University Regional Campus Coimbatore	18 .02.2016
		SKIP Programme	Challenges and issues on fuel cell technology - potential	SAE INDIA Southern Section,Chennai	19.02.2016
9.	Dr.V.M.Murusean	National Seminar	Electronics for engine management systems	Tamil Nadu college of Engineering Coimbatore	03.03.2016
10.	Dr.P.Karthikeyan	National workshop	Automobile engineering – electric hybrid vehicles and fuel cell	Ramco Institute of Technology Rajapalayam, Tamilnadu	12.03.2016

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
11.	Mr. N Ganesh Kumar	National seminar	Product design and development	Kumaraguru College of Technology Coimbatore	16.03.2016
12.		National sorkshop	Integrated product development	Sathyabama University, Chennai	09.04.2016

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1.	Dr. S. Neelakrishnan	Faculty Advisor	PSGCT SAE Collegiate Chapter, PSGCT, Coimbatore
		Manager, PSG Driving school	PSGCT, Coimbatore
		Secretary	SAEINDIA , Coimbatore Division
		Reviewer	International Journal of Production Research
		PSGIAS-SUNY&HARTFORD Program Coordinator	PSGCT, Coimbatore
		PSGTECHS COE INDUTECH Joint Director	PSGCT, Coimbatore
		NPTEL Coordinator	PSGCT, Coimbatore
		Co-coordinator	Partners for the Advancement of Collaborative Engineering Education (PACE), USA
		Coordinator	AICTE – NVEQF
2.	Dr.P.K.Rajesh	Co-coordinator	Partners for the Advancement of Collaborative Engineering Education (PACE), USA
		Faculty Advisor	PACE – RSMS- Engineering & Manufacturing Team
		Co-coordinator	AICTE – NAFETIC - PLM Centre
		Reviewer	Elsevier – Journal of Material Processing Technology
		Co-coordinator	Authorized Training Partner (ATP) for Siemens PLM Software Ltd.
		Co-coordinator	AICTE–NVEQF –Automobiles
3.	Mr. R Ravichandran	International student exchange, student counseling	Department of Automobile Engineering ,PSG CT
		NPTEL Course Coordinator	PSGCT, Coimbatore

S.No.	Name of faculty	Activity / Role	Organization
4.	Dr.M.Subramanian	Member of Inspection Committee for Affiliation	Anna University Chennai
5.	Dr. P.Karthikeyan	Reviewer	National Technology Journal, International Journal of Heat and Mass Transfer – Elsevier Publishers, Journal of Heat Transfer – ASME Publishers
		Editorial advisory & Review	Springer - Heat - Mass Transfer
6.	Mr. V.M. Murugesan	Faculty Advisor	PSGCT SAE Collegiate Chapter, Coimbatore
7.	Ms.D.Rekha	NPTEL Course Coordinator	PSGCT, Coimbatore
8.	Mr.N.Ganesh Kumar	Programme Coordinator (PG International Programme)	The University of Toledo, USA
		Programme Coordinator	Lean Six Sigma Certification Programme PSG CARE PSGCT
		Faculty Advisor	Animal Welfare Club
		Programme Co-coordinator & Membership	American Society for Quality (ASQ) India
		Guest Editor	International journal of Six Sigma and competitive advantage
9.	Mr.M.P.Bharathimohan	Faculty Advisor BAJA	PSGCT, Coimbatore
10.	Mr. Benjamin Shiloh Davidson	Faculty Advisor BAJA	PSGCT, Coimbatore
		NPTEL Course Coordinator	PSGCT, Coimbatore
		Co-coordinator	Asset Management & Computing resources including purchase
11.	Mr.M.Karthikeyan	NPTEL Course Coordinator	PSGCT, Coimbatore
12.	Mr.J.Niresh	Faculty Advisor FSAE	PSGCT, Coimbatore
		Faculty Advisor Retracted activity	PSGCT, Coimbatore
13.	Mr.V.Magesh Kannan	Nodal Officer- MIS	TEQIP II
14.	Mr.K.P.Devakran	Co-coordinator MIS	TEQIP II

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1.	AICTE – NAFETIC – PLM Center	Flow 3D software license	7.76
2.	Testing Lab (CART)	Ashok Leyland Engine (Sponsored by Ashok Leyland)	0.69

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
		Eddy current dynamometer with Load cell assembly and calibration extension arms (Sponsored by Robert Bosch)	3.95
3.	PACE Lab	NXACAD- 300-NXCAD, NXACAD 301-NXCAE +CAM, TCIDOTC-NXCAE+CAM, TCCACAD - 205-TLD, TCUACAD 205-TLCC, TCA CAD 300-7CUAB	2.16
4.	Hybrid Electric Vehicle Laboratory	LEM voltage transducer for measuring battery voltage and motor voltage after PWM 100v	0.25
		PCB Tri-Axial Accelerometer	1.98
		NI SBRIO 9637, 12-0-12, 7AH Battery and charger for control system Da2 and transducer (UGC Project)	1.50
		Solar Car Control (UGC Project)	1.49
		Fabrication of Test Fixture for Crankshaft Testing	0.25
5.	Automotive Electronic Laboratory	GM Chevrolet Cruze 2015 [Sponsored by General Motors for Center India Ltd for Center for Automotive Servicing and Testing Laboratory]	16.0
6.	Fuel Cell Laboratory	Robert Bosch Engineering Business Solutions Ltd., Eddy Current Dynamometer 150kw	10
7.	Engine testing & trouble shooting Laboratory	Petrol Engine 1.2 l [Sponsored by General Motors for Center India Ltd for Center for Automotive Research and Testing]	1.5
		Daimler Engine: Fuso2523-170 kW Unit Pump Engine	7.5
		Automobile Sub systems / Sub assembly [Sponsored by General Motors for Center India Ltd for Automotive Component Laboratory]	0.10
8.	SAE BAJA Laboratory Sponsored by 1. Craftsman Automation 2. TVS 3. Chennai Silks 4. PTC 5. PalaniMurugan Farms	SAE BAJA Vehicle Fabrication	6.74

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
9.	Formula Student India Sponsored by : 1. Roots 2. KTM 3. Willwood Caliper 4. Hoosier Tyres 5. JayemMotorsports 6. Shorai Batteries 7. SP Advance Composites 8. Sun metal Engineering 9. Schorath	Formula Student India/Formula Student Germany Fabrication	8.0

3.2. Development of new laboratories

S.No.	Laboratory name	Date of inauguration	Major equipment details	Cost in INR (lakhs)
1	Robert Bosch and Ashok Leyland sponsored Centre for Automotive Research and Testing (CART)	03.12.2015	Ashok Leyland Engine, Load cell assembly and calibration extension arms	35.0

3.3. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commence - ment & status	Duration	Grant in INR (lakhs)
1.	Centre of Excellence on Industrial Textiles	Dr. G.Thilagavathi Dr.S.Neelakrishnan Dr. Prakash Vasudevan	Ministry of Textiles, Govt. of India	2011 on going	5 years	2450.00
2.	Protein patterning on reactive substrates using inkjet printing for diagnostic applications	Dr.S.Neelakrishnan Dr.P.K.Rajesh Dr.V.Ramamurthy Dr.P.Rani	UGC, New Delhi	2013 ongoing	4 years	6.30
3.	Development of solar power - assisted electric vehicle and investigations on optimization of solar panel with battery pack	Dr. S.Neelakrishnan Mr.V.M.Murugesan Dr.ShaikAmjad Mr.R.Sureshkumar	UGC, New Delhi	2013 Completed	3 years	10.49
4.	Design and Development of Low cost high energy density 2 x 250 W PEMPF Stacks by optimization of flow channel design and	Dr P Karthikeyan Mr V Magesh Kannan Mr M Karthikeyan	AICTE, NewDelhi	Jan 2013 Completed	3 years	16.00

S.No.	Project title	Investigators	Sponsoring agency	Year of Commence - ment & status	Duration	Grant in INR (lakhs)
	reduction of platinum catalyst loading					
5.	The Green Cloud Project NAFETIC Innovative Product Lifecycle Management (PLM) Solutions through Energy-Efficient Cloud Computing for Small and Medium Enterprises	Dr.S.Neelakrishnan Dr.R.Venkatesan Dr.G.R.Karpagam Dr.P.K.Rajesh	AICTE NAFETIC National Facilities in Engineering & Technology with Industrial Collaboration New Delhi	2013 on going	4 years	100
6.	PACE Automotive Product Lifecycle Management Center	Dr.S.Neelakrishnan Dr.P.K.Rajesh	GM, Autodesk, HP, Oracle & Siemens	2015 on going	—	15000
7.	Setting up Focus Incubation Centre	Dr.G.Thilagavathi Dr.S.Neelakrishnan	Ministry of Textiles, New Delhi	2015 ongoing	6 months	2.85
8.	Development of an adaptive control system for precision, machining of aircraft aluminum material zone with targeted mean	Mr.N. Ganesh Kumar	Ministry of Defense Aeronautics R&D Board DRDO	2016 on going	2 years	18.85
9.	Development of Jute/Jute Blended Fibrous Mat for Effluent Filtration Applications	Dr.G.Thilagavathi Dr.S.Neelakrishnan	Ministry of Textiles, New Delhi	2016, ongoing	1 year	19.96

3.3.1. Sponsored research activities – Abstract

Center of Excellence on Industrial textiles - PSGTECHS COE INDUTECH

Centre of excellence (COE) for INDUTECH (Industrial sectors) is a project funded by the Ministry of Textiles under Technology Mission on Technical Textiles (TMTT). Ministry of Textiles has identified eight (8) sectors of technical textiles comprising Sportstech, Indutech, Meditech, Geotech, Composites, Nonwovens, Protech, Agrotech and are providing funds to a tune of 24.5 crores for each sector. PSG College of Technology was awarded a COE for Industrial textiles & home textiles sector in the f March 2011. The COE would function for a minimum period of 5 years on a self sustainable basis. The COE is required to develop manufacturing facilities for INDUTECH products, perform R&D activities, develop prototypes, provide incubating facilities, provide testing facilities for industries to use, develop new product, evolve standards for industrial textile products and accreditation.

Protein patterning on reactive substrates using inkjet printing for diagnostic

Applications Inkjet printing is used widely in the field of organic electronics, chemical synthesis, sensor fabrication, combinatorial chemistry, and biology. From 1985 onwards, inkjet printers were

used for dispensing functional materials, other than inks, in text and graphics. The Inkjet printing, particularly works on drop-on-demand techniques are used in biosensor development by using pico- to nanolitre-sized quantities of buffered protein solutions which may be precisely dispensed to a designated sample space, with minimal waste. Recently, researchers have devised a way to print live cells using an ink jet printer. The ink jet printing system is also used for microarray printing of proteins, nucleic acid and cells. For these applications antibodies, allergens and pathogens can be imprinted effectively using this bio-ink printer.

Development of Solar Power-Assisted Electric Vehicle and Investigations on Optimisation of solar panel with Battery Pack

Rising oil prices, increased societal concern about climate change and strict regulations focusing on fuel/energy efficiency/CO₂ emissions have the potential to cause profound changes in the global auto industry over the next few years. In addition, the compounding effects of increasing personal vehicle use and the deterioration of urban air quality from fossil fuel based transportation vehicles has resulted in a shift to seek alternative modes of transportation and energy sources for powering automobiles. Electric vehicles (EVs), due to their zero local and potentially minor greenhouse gas emissions are considered the cleanest option. Despite EVs having zero direct emissions, the electricity used to power EVs originates at power generating stations that emit a variety of pollutants or have other negative environmental impacts. In addition, electric vehicles have failed to achieve significant market share due to poor performance, high cost and short ranges. Using renewable energy to power EVs would reduce urban air pollution, point source pollution emitted from non-renewable energy based power generating stations and the overall dependence on fossil fuels.

At present, applications of solar energy charging stations for electric vehicles exist, whereas, research shows the viability of integrating solar panels into electric vehicles to supplement energy production and use of on-board solar power generation on electric vehicle demands further investigations. The objective of this project is to develop a solar power-assisted vehicle and investigate the potential of assisting electric vehicle propulsion using on-board solar power generation. Since the surface of solar panels on a car is limited, it is therefore important to maximize their power extraction. In addition, seasonal variations affect the amount of available solar energy, which limits the amount available for supplementary solar power generation used in EV propulsion. Moreover, these vehicles would require specific solutions for energy management and control. In these vehicles, in fact, there are many mutual interactions between energy flows, propulsion system component sizing, vehicle dimension, performance, weight and costs. Retrofitting a flexible solar panel on an existing electric vehicle may be just the first step in order to maximize their benefits. Supplementary solar energy not only extends the range, it reduces the battery pack size, weight and cost, but also mainly minimizes the fuel consumption and CO₂ emissions.

Design and Development of Low Cost High Energy Density 2 x250 W PEMFC Stacks by Optimization of flow channel design and Reduction of Platinum Catalyst loading

Extensive research is carried out to optimize water logging, enhance heat dissipation and energy density of the fuel cell, both on academic and industrial sectors. A proposal is made to address the following issues-Impact of various flow channel designs on the performance of Proton Exchange Membrane Fuel Cell (PEMFC) stack. Various flow field patterns and their influences on cell performance will be studied. Effect of flow channel, width and depth and rib surface width, and their influences on cell performance will be studied. Different profiles in flow channels and their influences on cell performance will be studied. A study of heat integration (energy recycling) on the performance of the stack and the efficiency of the humidification scheme is undertaken.

Effects of platinum loading on the catalyst and reduction of the catalyst layer thickness on the performance of the PEMFC stack. MEA preparation for better platinum catalyst utilization: Mass transport losses can be minimized by reducing the thickness of the catalyst layers. By using a catalyst with higher percentage of platinum on carbon (increasing the mass concentration of platinum) the thickness of the catalyst layer can be reduced for a given catalyst loading (mg/cm²). A thinner catalyst layer also helps in reducing the ohmic losses as the electron has to move through a smaller distance in the catalyst layer. Proton conduction also will be enhanced by using a thinner catalyst layer.

MEA preparation with platinum alloy catalyst: The platinum usage can be reduced by using platinum alloy catalyst. In this study 1:1:1 ratio of PtCoCr (Platinum/ Cobalt/Chromium), PtCoMo (Platinum/Cobalt/Molybdenum) and PtNiCr (Platinum/Nickel/Chromium) alloys will be used instead of pure Platinum catalyst. Study of important issues associated with scaling-up and stacking of fuel cell; like, reducing current and power density, size of the humidification system with an increase in the stack capacity, the increase in complexity of the models used to simulate and control the system.

The Green Cloud Project NAFETIC Innovative Product Lifecycle Management (PLM) Solutions through Energy-Efficient Cloud Computing for Small and Medium Enterprises

The objective is to implement a private PLM Cloud Framework and create a test bed for Cloud Computing infrastructure model for Small and Medium Enterprises that endows with,

1. **Reduced hardware cost:** Reduce the investment and maintenance cost of processors, disks, and storages, and communication links by providing a Cloud Infrastructure.
2. **Reduced power consumption:** Energy efficient solution with scalable and efficient algorithms to reduce power consumption.
3. **Optimal power - aware scheduling:** An innovative and optimal scheduling solution with the objective to allocate resources on demand and reduce power consumption. A Multifaceted approach to Low Energy Consumption, Stability and Security.
4. **Promote GREEN IT and reduce E-Waste in academic institutions and industries:** The best test created for the cloud computing infrastructure will be shared with academic institutions industries (Technological Framework and Toolkit) for configuring an Environmental Friendly Computing thereby promoting GREEN IT and reducing Electronic waste.

PACE Automotive Product Lifecycle Management Center [PACE], USA

PACE, Partners for the Advancement of Collaborative Engineering Education, is a partnership between General Motors, Siemens PLM Software, Autodesk, Hewlett Packard and Oracle to support strategically-selected academic institutions worldwide. The PACE mission is to develop the automotive Product Lifecycle Management (PLM) team of the future, by closing the gap between engineering education and practice. PLM is an integrated digital/parametric-based approach to a product's lifecycle, from design inception through manufacture, marketing, distribution, maintenance and into recycling, disposal, reuse, and sustainability. PACE integrates game-changing math based tools and technologies into the creative design, engineering, and manufacturing curricula of key academic institutions, not only to develop students who are skilled in the latest industry PLM tools and technologies, but also to enhance the competitiveness of the universities in each country. PACE strives to align academic and industry expectations by helping students to acquire experience with math-based tools and processes through classroom instruction, lab assignments, and interdisciplinary collaborative projects within or among universities globally. Established in 1999 by General Motors, EDS, and Sun Microsystems, PACE began with a single university and then added strategically selected institutions each year. The program has grown to match the engineering and design needs of the local automotive industry in each country, to its

current total of 65 engineering and design academic institutions in 12 countries. Since its inception, PACE, through its five Partner companies and 16 Contributor companies, has contributed over \$12 billion of in-kind donations of software, hardware, training, IT consulting services, as well as grants. 0 2 4 6 8 10 12 14 Billions Cumulative Contributions (Billions USD) PACE improves the industry and academic standards in math-based design, engineering and manufacturing by facilitating the integration of commercial CAD/CAM/CAE/PDM software tools into the curricula at PACE institutions. PACE promotes university-to-industry and university to-university global networking and collaboration, through PACE projects and competitions that bring together faculty, students, subject matter experts, and company executives in a collaborative environment, both locally and globally. Additional goals include promoting diversity, encouraging students to pursue automotive careers, identifying recruits and interns, and maintaining a presence on campus even in times of low recruitment. The PACE focus is on relationship outcomes with a positive impact for the PACE Institutions, and a long-term collaborative relationship between academia and industry. The continuing stamina of PACE is demonstrated by the high degree of PACE company commitment to PACE Institutions, PACE Faculty, PACE Students, and ultimately the PACE Mission. PSG Tech is the fifth institution in India to become a part of the PACE program on 12th March 2015, joining PES University - Bengaluru, Sri Jayachamarajendra College of Engineering - Mysuru, National Institute of Design [NID] - Ahmedabad and M.S.Ramaiah University of Applied Sciences - Bengaluru.

Development of an adaptive control system for precision machining of aircraft aluminum material zone with targeted mean

Aerospace manufactures constantly seek for opportunities to reduce the weight of their products. A commercial airbus A380 consists of more than 50,000 components and its maximum take-off weight is 575 tons, maximum landing weight is 394 tons and maximum zero fuel weight is 369 tons. It is reported that reducing 0.453 kg of mass in a commercial aircraft saves up to 1360 liters of fuel each year. Therefore, reducing the weight of a component even by a small portion of it could contribute to a significant weight reduction of a commercial airbus like A380 and other such kind of aircrafts.

With this view, the objective of this study is to reduce the weight of a machined component. With the current technology and manufacturing processes, it is not possible to reduce the weight of the machined component using traditional machine tools. Hence, **a new concept** called machining at '**near minimum material zone**' conditions is introduced which directly reduces the weight of the components. However, this requires precision machining and also an improvement in process capability of the machine tools. In order to implement this, **a new technology** called '**portable intelligent system**' is developed. With these combinations, the components can be machined accurately and precisely in existing machine tools.

Focused Incubation Center

To set up an incubation center that will enable and benefit Micro Small and Medium Scale Enterprises (MSME) and institutional buyers to manufacture indigenous technical textile products in the fields of sound insulation, thermal insulation, coir felt composite products and filtration products.

Development of Jute / Jute Blended Fibrous Mat for Effluent Filtration Applications

Prefilters play a significant role in effluent treatment plants. Prefilters are placed before tertiary effluent process namely the reverse osmosis. Reverse osmosis is carried out to get pristine pure water from the influent. Turbidity before the tertiary process occurs due various chemicals as calcium hydroxide used for settling of effluent, chlorine based colour removing agents, sand sediments, dirt and other impurities that are present during primary and secondary treatments. The turbidity of the effluent, if maintained at 1-5 NTU (Nephelometric Turbidity Units) yield better

performance in the Reverse osmosis plants. To achieve above turbidity levels various types of prefilters are deployed before the Reverse osmosis process. In this project, it is proposed to develop a prefilter string wound and nonwoven based using jute fiber. The selection of jute fiber will pave way for ease of disposal after its usage. Hence, the major focus of the project is to develop biodegradable prefilter based on jute and to achieve reduction of turbidity of 1-2 NTU.

3.4. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1.	Mr. M. Ashok	Solar energy driven automobile air conditioner light motor vehicle	Dr. N. Shenbaga Vinayaga Moorthi Associate Professor Anna University Tirunelveli	Completed
2.	Mr.T. Krishnaswamy	Internal combustion engines	Joint supervisor Dr. S Neelakrishnan Professor & Head, PSGCT	2007, Ongoing
3.	Mr. S. Kathirvelu	Internal combustion engines		2007, Ongoing
4.	Mr. A. Sasikumar	Control of mild hybrid electric vehicle with diesel engine		Dr. S Neelakrishnan Professor & Head PSG CT
5.	Mr. R.Ravichandran	Experimental studies on performance of spur gear	Dr. P.Karthikeyan Associate Professor PSG CT	2009 Ongoing
6.	Mr.M.P.Bharathi mohan	Surface coating technologies		2009 Ongoing
7.	Mr. P. Velmurugan	Performance Studies on PEM Fuel Stack for Portable Applications		2010, On going
8.	Mr. M. Muthukumar	Performance Studies on PEMFC with Porous Flow Channel	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSGCT	2010, On going
9.	Mr. Lakshmi Narayanan	Performance Studies on PEMFC with Porous Inserts on Non Porous Flow Channel		2010, On going
10.	Ms.D.Rekha	Study and Analysis of Diesel Particulate Filter	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSGCT	2011, Ongoing
11.	Mr. Benjamin Shiloh Davidson	Friction Stir welding for Automotive Applications	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSGCT	2011, Ongoing
12.	Mr.R.Karthikeyan	Intermetallic based aluminum metal matrix composites for the automotive piston	Dr. P.Radhakrishnan Director PSG IAS, PSG CT	2011, On going
13.	Mr. N Ganesh Kumar	Investigation to Achieve Precision Machining at ' Near Minimum Material Zone' Using Portable Intelligent System	Dr. P.Karthikeyan Asso.Professor, Automobile Engineering,	2011, On going
14.	Mr.M.Karthikeyan	Design and Development of High Efficiency Low Cost 250 W PEMFC Stack with Thin Catalyst Layers		2012, On going

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
15.	Mr.V.Magesh Kannan	Design and Development of 250 W Low Cost and High Energy Density PEM Fuel Cell Stack by Flow channel Optimization	PSG CT	2012, On going
16.	Mr.J.Niresh	Development of cost effective impedance tube	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSG CT Joint supervisor Dr.S. Subharani Professor & Head, Electronics & Communication Engineering, PSG CT	2012, On going
17.	Mr.Ramasubramanian	Automation & Robotics	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSG CT	2012 On going
18.	Mr. Ramachandran	Lean Manufacturing	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSG CT	2012 Ongoing
19.	Mr.M.Ashok Kumar	Optimization of flow channel design for performance enhancement of solar aided proton exchange membrane fuel cell for vehicle application	Dr. P.Karthikeyan Asso.Professor, Automobile Engineering, PSG CT	2013 On going
20.	Mr.S.Jayaanandhan	Innovative product lifecycle management through energy efficient cloud computing for automotive product	Dr.P.K.Rajesh Professor, Automobile Engineering, PSG CT	2015 On going
21.	Mr.K.P.Devakaran	Control systems design for automobile application	Dr.J.Arun Shankar I&CE PSG CT	2015 On going
22.	Mr.V.Thiyagarajan	PEMFC- New Catalyst development and stacks performance enhancement studies	Dr. P.Karthikeyan Asso. Professor, Automobile Engineering, PSG CT Joint Supervisor Dr.R.Manharan IAS, PSG CT	2015 On going
23.	Mr.M.Suresh	Development and Analysis of Mechanical, Metallurgical Characterization and Re-Engineering of Automotive Components	Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSG CT	2015 On going

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
24.	Mr.S.Vishak	Sound Absorption Characteristic of Non Wovens with Natural Fibers	Dr.G.Thilagavathi, Professor & Head, Textile Technology, PSG CT	2015 On going
25.	Mr.V.Muthukumar	Development of Environmental friendly acoustic panel	Joint Supervisor Dr. S Neelakrishnan Professor & Head, Automobile Engineering, PSG CT	2015 On going
26.	Mr. M.Chandrasekar	Implementation of lean manufacturing principles in automotive component manufacturing industry	Dr.V.M.Murugesan Assistant Professor (Sl.Gr), Automobile Engineering, PSG CT	2016 On going

3.5. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount In INR (lakhs)
1.	Dr. S. Neelakrishnan Ms.D. Rekha	A.S.L.Pauls College of Engineering & Technology, Chennai	Emission test	0.06
		Birla Institute of Technology & Science, Pilani Hyderabad Campus	Alternator e-fuels performance & Emission test	0.15
2.		JAYEM AUTOMOTIVES LTD, Singanallur, Coimbatore	Emission test 5 Gas analyzer	0.17
3.	Dr. S. Neelakrishnan Mr.R.Ravichandran Mr.M.P.Bharathimohan Mr.R.Sureshkumar	JAYEM AUTOMOTIVES LTD, Ondipudur Road, Singanallur, Coimbatore	Gear box testing	2.83
4.	Dr. S. Neelakrishnan Mr.M.P.Bharathimohan Mr.R.Sureshkumar	Super Sales India Ltd Thekkampatty post Thekkampatty – 641 113	Gear Motor testing	0.15

3.6. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	176	-	-	-	-	-
2	GRD Library - Automobile Engineering	1636	342	239	-	8	-

3.7. Board of Studies

S.No.	Date	Agenda	Experts
1	09.10.2015	<p>Programme Advisory Committee Meeting</p> <ul style="list-style-type: none"> • Discussion of UG Scheme and detailed syllabi for Regular (3rd semester to 8th semester) for 2015 regulations • Introduction of new electives for UG/PG and research electives • Introduction of one credit courses for UG/PG • Any other related matter 	<ol style="list-style-type: none"> 1. Mr.R.Purushothaman Deputy General Manager Robert Bosch Engineering and Business Solutions Private Limited, Coimbatore 2. Ms.VinithaRanganathan Director, Rover Components Limited , K Vadamaduri Coimbatore - 641017 3. Mr.A.Sasikumar Manager AMTEC,JayemAutomotives Ltd Ondipudur Road, Singanallur, Coimbatore 4. Mr.K.P.Rajendran Senior Manager - Product Development Engineering, Pricol Limited, Coimbatore
2	10.10.2015	<ul style="list-style-type: none"> • Preparation of UG Scheme and detailed syllabi for Regular (3rd semester to 8th semester) for 2015 regulations • Introduction of new electives for UG/PG and research electives • Introduction of one credit courses for UG/PG • Any other related matter 	<ol style="list-style-type: none"> 1. Mr. Rajamanickam Sundaresan, Thermal Systems Engineering Manager, Valeo India Pvt. Ltd, Chennai 2. Dr.R.Subramanian Head of the Department Automobile Engineering IRTT, Vasavi College Post, Erode 3. Dr.RamakrishnanEkambaram, Head- Power Train,Robert Bosch, Ltd. Thudiyalur Road, Saravanampatti, Coimbatore
3	09.04.2016	<ul style="list-style-type: none"> • Finalization of detailed Syllabi for BE/BTech, Programmes. • Introduction of New Electives for UG/PG and Research Electives • Introduction of One Credit Courses for UG/PG • Course working Manual Preparation • Any other related matter 	<ol style="list-style-type: none"> 1. Dr.C.S.Shankar Ram Associate Professor Department of Engineering Design Indian Institute of Technology, Madras. 2. Dr. R Subramanian Head of the Department , Institute of Road Transport and Technology, Erode 3. Dr.Ramakrishnan Ekambaram, Head- Power Train, Robert Bosch, Ltd. Thudiyalur Road, Saravanampatti, Coimbatore

3.8. Research publications

3.8.1. Papers published in international journals

1. Kalasapurayil Kunhiraman Aruna, Ramasamy Manoharan, Palanisamy Karthikeyan, A.Siller-Ceniceros, P.Melendez-Gonzalez, P.Bartolo-Perez and F.J. Rodríguez-Varela, "Evaluation of supported and unsupported Pd-CeO₂ nanostructured anode electrocatalysts for the formic acid and the glycerol

- oxidation reaction in acid media”, in the *Journal of Electrochemical Society, Springer Publication* Volume 45, Issue 11, pp 1195-1204 Nov 2015.
2. V Lakshminarayanan, P Karthikeyan, M Muthukumar and A. P Senthil Kumar, “Optimization of Rib to Channel ratios on Serpentine Flow Channel Design and Operating Parameters on Proton Exchange Membrane Fuel Cell”, *International Journal of Applied Engineering Research, Research Engineers Publications* vol. 10, no. 19, pp. 14723-14729, ISSN : 0973-4562 (Annexure II).Nov 2015.
 3. V Lakshminarayanan and P Karthikeyan, “Optimization of Flow Channel Design and Operating Parameters on Proton Exchange Membrane Fuel Cell Using Mat lab”, *Periodicpolytechnica Chemical Engineering*, (ISSN: 1587-3765), 10.3311/PPch.8461 Nov 2015.
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 10. M.P.Bharathimohan and S.Neelakrishnan, “Improvement of wear and corrosion resistance of Plasma-Sprayed Partially Stabiled Zirconia Coating”, *IJAER Research India Publications in the International* ISSN 0974-0546 Dec2015
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3.8.2. Papers published in national journals

1. Murugesan V.M, "Fault Diagnosis of Automobile Starting System Using Electronic Control Unit", *National Journal of Technology* Vol.11, No.3, Page No.67 to 84 0973-1334 2015.

3.8.3. Papers presented in national conferences

1. Harivithagan N A and V.M.Murugesan., "Design and Development of Suspension Test Rig", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
2. Linesh K P and Benjamin Shiloh Davidson., "Virtual ABS Homologation Testing based on Inter-Disciplinary Simulation Approach" , *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
3. Prabakaran L Nand R.Karthikeyan., "Conceptual design of Foldable Electric Bi-cycle" , *7th National Conference on Advances in Vehicle Technology, NCAVT- 16*, PSG College of Technology, Coimbatore.
4. Ram Prasanna J and R.Suresh Kumar., "Analysis of Car Bumper using Light Weight Material", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
5. NiranjandK.P.Devakaran., "Optimization of ford customer acceptance line assembly", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
6. Srinath K and S.Neelakrishnan., "Design & Development of Solar power assisted hybrid electric Vehicle", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
7. SurabattulaYasodharand P.Karthikeyan., "Numerical and Experimental Analysis on Electrode Materials for Lithium-Ion Cells" . *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore
8. Vignesh M, V.Magesh Kannan., Flow Geometry "Optimization of Proton Exchange Membrane Fuel Cells for Reducing Cathode Flooding and performance improvement study" , *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
9. Abhijit B and M.Subramanian., "Improving productivity of an automobile sub assembly line using line balance and time study analysis study" , *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
10. Vaisakh J, R.Ravichandran., "Design And Analysis of Spur Gear for weight reduction and performance study", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
11. Aravind S and S.Neelakrishnan., "Design and development of solver nitrate coated monolith for the Reduction of emissions in Diesel Engines", *7th National Conference on Advances in Vehicle Technology NCAVT. 16* PSG College of Technology, Coimbatore.
12. Bharani Dharan G and M.Karthikeyan., "Eliminating Assembly Defects in Vehicle Assembly During Leveled Process", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
13. Clinton Jacob P and P.K Rajesh., "Analysis and Optimization of Droplet Formation and Spreading of Bio Inks using flow3D", *7th National Conference on Advances in Vehicle Technology, NCAVT- 16*, PSG College of Technology, Coimbatore.
14. KarthiVinithK Sand M.P.Bharathi Mohan., "Fabrications and Analysis of Automobile components using acetalhomopolymer", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.
15. ShylendranR and J.Niresh., "Experimental analysis of sound absorbing materials using modified impedance tube", *7th National Conference on Advances in Vehicle Technology, NCAVT-16*, PSG College of Technology, Coimbatore.

3.9. Visits abroad

3.9.1. Visits by faculty

S.No.	Name of faculty	Place of visit	Period	Purpose
1.	Dr.S.Neelakrishnan	Lauchheim, Germany	14.03.2016- 18.04.2016	Machine Inspection &University Relating
2.	Dr.P.Karthikeyan	INDO-Mexican CENVESTAV-IPN, Unidad Saltillo-Monterrey, Mexico, & California, USA	21.08.2015- 16.09.2015	Improving international exchange and research cooperation

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	BE Automobile - I Year	61
2	BE Automobile- II Year	74
3	BE Automobile -III Year	74
4	BE Automobile - IV Year	72
5	M.E Automotive – I Year	17
6	M.E Automotive – II Year	15

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1	Awareness workshop on Transportation and mobility design and styling	Mr.M.Manivannan GM –PDE Pricol Coimbatore	30	26.06.2015

4.3 Activities of technical society – student chapter

S.No.	Society Name	Topic	Chief guest & affiliation	No. of participants	Date
1	PSGTECH SAE Collegiate chapter	Technical lecture on automobile crash repair technology	Arun Kumar Rathinavelu, Operations Manager, PAN India OBSS India Pvt Ltd Coimbatore	200	06.10.2015
2		Guest lecture on Latest Innovations in Automobile Engineering & Valeo Innovation Challenge 2016	Mr. Rajamanickam Sundaresan, Manager,Valeo India Pvt. Ltd, Chennai	100	13.01.2016

4.4. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1.	Formula student India	8	1
2.	Baja SAE` India	15	2
3.	Students union	4	1
4.	PACE	7	1
5.	Best All-Rounder	2	2
6.	Best outgoing	2	2
7.	Athletics	10	5

4.5. Awards won by students

S.No.	Roll No.	Name of student	Event	Award	Awarded by	Date
1.	12A252	Sriram Nandan S.M	FSAE	Cost Award	FSAE	01.07. 15
2.	13A433	Bharanidharan V				
3.	12A205	R. Athmika Lakshmi				
4.	12A250	Balaji V				
5.	12A203	Arun K				
6.	12A250	Sricharan A				
7.	12A251	Srinivasan V.	PACE	3 rd Place	PACE GM	30.07.2015
8.	12A222	Lokesh M.				
9.	12A207	Balakrishnan V.J				
10.	12A250	Sricharan A	Concept car Skelton	1 st place	SAE	01.09.2015
11.	13A259	Visshnu P.M	General quiz	1 st place	CIT Coimbatore	11.09.2015
12.	12A246	Sasikumar V	Academic	Best out going	PSG Tech	07.03.2016
13.	12A237	Prithiv S	Academic	Best all rounder	PSG Tech	29.02.2016
14.	14ms07	Vaisakh J	Academic	Best all rounder	PSG Tech	29.02.2016
15.	14ms01	Harivithagan N A	Academic	Best out going	PSG Tech	07.03.2016
16.	12A205	Athmika Lakshmi R	FSI	SKIDPAD	FSI	20.01.2016
17.	12A252	Sriram Nandan S.M				
18.	12A203	ARUN.K				
19.	13A259	Visshnu P.M.	Desmod	1 st place	IIT Madras	26.01.2016
20.	12A246	Sasikumar V	BAJA SAE	Design 2 nd Place	BAJA SAE	17.02.2016
21.	12A229	Naufel Mahmood B.A				
22.	12A260	Vishanth E				

S.No.	Roll No.	Name of student	Event	Award	Awarded by	Date
23.	12A226	MohanaKrishnan P				
24.	12A237	Prithiv S				
25.	12A219	Kowtham T				
26.	12A239	Raj kumar R				
27.	12A201	Abishek T				
28.	12A433	Vignesh.K.R	BAJA SAE	Design 2 nd Place	BAJA SAE	17.02.2016
29.	12A219	Jagadeeshwaran.K				
30.	12A257	Vinodh M				
31.	13A212	Gali Harsha				
32.	13A441	Vasantha Kumar P				
33.	12A228	Naresh S.				
34.	13A259	Visshnu P.M				
35.	14A442	Muthu Bharani R				
36.	13A201	Abinav R.	IPL Aultion	1 st Place	PSG Tech	11.03.2016
37.	13A240	Santhosh M.				
38.	13A208	Bhuvanesh G				
39.	13A259	Visshnu P.M	FTC 2k16	Overall champion	Caterpillar	12.04.2016

4.6. Final year project work

4.6.1. UG project (regular)

S.No.	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
1.	12A204 12A212 12A230 13A432	Ashwin G EzhilBharathi S Nishanth S Balachandar G	Stress Analysis in Modified Spur Gear tooth	Mr.R.Ravichandran	-
2.	12A243 12A244 13A439	Shankar Balan M Saranjith S Navaraj Kumar M	Walking Vehicle	Mr.V.MageshKannan	-
3.	12A242 12A245 12A247	Sabarish R. Saravanan K. P. Selvakumar R	Antilock Braking System for two wheelers	Dr.V.M.Murugesan	-
4.	12A232 12A250 12A259	PradeepKanna P Sricharan A Vishal S	Calibration of reverberation chamber development of sound absorbing material for automotive application	Dr.S.Neelakrishnan	-
5.	12A233 12A235 12A239	Pranesh Kumar M Praveen Kumar K Ranjith M	Scaling up of 36cm ² Interdigitated flow field of PEMFC	Dr.P.Karthikeyan	-

S.No.	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
6.	12A205 12A223 12A225 12A231	Athmiha Lakshmi R Manash Kumar R MithunBalaji J Ponkavin P	Exhaust pipe manufacture for LMV to increase the engine performance	Dr.S. Neelakrishnan	-
7.	12A241 12A254 12A258	Rudhran S Syed Kadhar I Vinodhraj A	Active Roll Control in trucks	Dr.M. Subramanian	-
8.	13A433 13A437 13A438	Bharanidhar V Karthick S Kavin S	Pneumatic Paddle shifting for formula student car	Dr.P. K. Rajesh	-
9.	10A256 12A249 12A253 13A442	Vigneshwar B Siddhartha M Subash M Somnath S	Foldable Electric Bike	Mr.R.Suresh Kumar	-
10.	12A236	Preetham P S	Development of electric drive train for K03	Dr.P.Karthikeyan	BMW Stuttgart Germany
11.	12A246 12A229 12A252	Sasikumar.V NaufelMahmood.B.A SriramNandan.S.M	Investigation and Market Analysis ofback hoe loaded Gear Box	Mr.N.Ganesh Kumar	ZF Gearbox, Coimbatore
12.	12A226 12A260 12A238	MohanaKrishnan.P Vishanth Easwaramoorthy Rajkumar.R	Contact Stress Analysis of Inverted tooth (silent) chain and sprockets	Mr.M.Karthikeyan	LGB, Coimbatore
13.	12A209 12A216 12A219	BharathKumar.B.R Hariharan.S Jagadheeshwaran.K	Simulation of Drive Chain	Mr.R.Karthikeyan	LGB, Coimbatore
14.	12A211 13A441 13A434	Christopher.V Vasanthkumar.P BharathKumar.V	Torque sensing Mechanism	Mr.R.Ravichandran	Robert Bosch Coimbatore
15.	12A237 12A221 12A201	Prithiv.S Lakshmanan.C Abishek.T	Manual over ride of Continuous Variable Transmission	Mr.K.P.Devakaran	
16.	12A228 13A440 12A203	Naresh.S Sidharth.R Arun.K	Adblue Purging from Dosing Module chamber without using External Power	Dr.V.M.Murugesan	
17.	12A218 12A256 12A257	Infant.H Vijay Prakash.B Vinodh.M	Design of compact weeded Machine	Dr.M.Subramani	
18.	12A222 12A251 12A240 12A248	Lokesh.M Srinivasan.V Rathishkumar.S ShyamGanesh.K	Validation of timing chain of ToyatoEtios diesel engine	Dr.P.K.Rajesh	L.G.Bala krishnan Pvt Ltd Coimbatore
19.	13A431 13A436	Anbarasan.R Hariprakash	Intelligent speed Adaption of two wheelers	Mr.M.P.Barathi mohan	JayemAuto motives Coimbatore

S.No.	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
20.	12A210 12A207	Chakravarthy.M Balakrishnan.V.J	Service time optimisation and process improvement	Mr.BenjaminShilloh Davidson	Volvo, Bengaluru
21.	12A234 12A206	Prashanth.E Balaji.V	Reducing gear shifting issues in Royal Enfield Motor cycle using vision system	Dr.P.Karthikeyan	Royal Enfield, Chennai
22.	13A435 12A220	Chandru.M Kowtham.T	Automatic Parking Brake Assist	Mr.BenjaminShilloh Davidson	Bull machines, Coimbatore
23.	12A208 12A255	Bharath.N.G Venmani.R	Damping Characteristic Study on Single Box Lift axle System	Dr.S.Neelakrishnan	Wabco, Chennai
24.	12A213 12A215 12A227	Girishkumar.V Gowtham.S MukeshKumar.P	Development of filter media for catalytic convertor from coir path	Dr.S.Neelakrishnan	PSGTECHS COE INDUTECH Neelambur Coimbatore
25.	12A202 12A214 12A217	Arjun.G Gowtham.P Harish.S	Reduction of shrinkage defect in Reciprocating Piston	Mr.J.Niresh	Indoshell Cast, Coimbatore

4.6.3. PG project

S.No	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
•	14MS01	HarivithaganN A	Design and Development of Suspension Test Rig	Dr.V.M.Murugesan	-
•	14MS02	Linesh K P	Virtual ABS Homologation Testing based on Inter-Disciplinary Simulation Approach	Mr.Benjamin Shiloh Davidson	Wabco, Chennai
•	14MS03	PrabakaranLN	Conceptual design of Foldable Electric Bi-cycle	Mr.R.Karthikeyan	-
•	14MS04	Ram Prasanna J	Analysis of Car Bumper using Light Weight Material	Mr.R.Suresh Kumar	-
•	14MS05	Srinath K	Design &Development of Solar power assisted hybrid electric Vehicle	Dr.S.Neelakrishnan	-
•	14MS05	Srinath K	Design and development of an ergonomic work assist system for manual loading of car dashboard assembly	Dr.S.Neelakrishnan	Hyundai, Chennai
•	14MS06	Surabattula Yasodhar	Numerical and Experimental Analysis on Electrode Materials for Lithium-Ion Cells.	Dr.P.Karthikeyan	-

S.No	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
•	14MS07	Vaisakh J	Design And Analysis of Spur Gear for weight reduction and performance study	Mr.R.Ravichandran	-
•			Redesign and analysis of water pump with aluminum alloy		Pricol Ltd, Coimbatore
•	14MS08	Vignesh M	Flow Geometry Optimization of Proton Exchange Membrane Fuel Cells for Reducing Cathode Flooding and performance improvement	Mr.V.Magesh Kannan	-
•	14MS31	Abhijit B	Improving productivity of an automobile sub assembly line using line balance and time study analysis	Dr.M.Subramanian	TVS,Hosur
•	14MS32	AravindS	Design and development of solver nitrate coated monolith for the Reduction of emissions in Diesel Engines	Dr.S.Neelakrishnan	-
•	14MS33	Bharani Dharan G	Eliminating Assembly Defects in Vehicle Assembly During Levelled Process	Mr.M.Karthikeyan	TVS,Hosur
14	14MS34	Clinton Jacob P	Analysis and Optimization of Droplet Formation and Spreading of Bio Inks using flow3D	Dr.P.K Rajesh	-
•	14MS35	KarthiVinithK S	Fabrications and Analysis of Automobile components using acetahomopolymer.	Mr.M.P.Bharathi Mohan	-
•	14MS36	Niranjan T	Optimization of ford customer acceptance line assembly	Mr.K.P.Devakaran	Ford India Ltd, Chennai
•	14MS37	Shylendran R	Experimental analysis of sound absorbing materials using modified impedance tube	Mr.J.Nires	-

4.7. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1.	GATE	6	-	-
2.	MAT	6	12A205 12A225 12A239 12A244 12A245 12A250	R.Athmiha Lakshmi J.MithunBalaji M.Ranjith S.Saranjit K.P.Saravanan A.Sricharan
3.	CEED	1	12A230	D.Nishanth

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
4.	NID	2	12A208 12A255	N.G.Barath R.Venmani
5.	TOEFL	1	12A236	P.Preetham

4.8. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	Hyundai Motors India Limited, Chennai	1	14MS01	Harivithagan N A	6.5
2.	Cognizant Technology Solutions, Chennai	3	14MS03	Prabaharan L N	3.6
			14MS06	SurabattulaYasodhar	
			14MS37	Shylendran R	
3.	Renault Nissan Technology Business Centre India, Chennai	1	14MS07	Vaisakh J	3.5
4.	IBM, PSG	1	14MS08	Vignesh M	3.5
5.	Infosys, Bangalore	1	14MS34	Clinton Jacob P	3.5
6.	General Motors Technical Centre, Bangalore	3	12A222	Lokesh M	5.1
			12A229	Naufel Mahmood B A	
			13A440	Sidharth R	
7.	Ford Motors, Chennai	4	12A237	Prithiv S	5.5
			12A246	Sasi Kumar V	
			12A251	Srinivasan V	
			12A252	Sriram Nandan S M	
			12A260	VishanthEaswaramurthy	
8.	Tata Consultancy Services, Chennai	3	12A212	EzhilBharathi S	3.6
			12A238	Rajkumar R	
			12A257	Vinodh M	
9.	Cognizant, Chennai	3	12A215	Gowtham S	3.6
			12A227	Mukeshkumar P	
			12A256	Vijay prakash B	
10.	IBM, Bangalore	2	12A226	Mohana Krishnan P	3.5
			12A207	Balakrishnan V J	
11.	Infosys, Bangalore	2	12A221	Lakshmanan C	3.3
			12A242	Sabarish R	
12.	Wipro, Chennai	1	12A228	Naresh S	

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
13.	Accenture, Chennai	13	12A202	Arjun G	3.5
			12A206	Balaji V	
			12A209	Bharathkumar B R	
			12A211	Christopher V	
			12A213	Girish Kumar N V	
			12A214	Gowtham P	
			12A216	Hariharan S	
			12A217	Harish S	
			12A230	Nishanth D	
			12A240	Rathishkumar S	
			12A247	Selva Kumar R	
			12A248	Shyam Ganesh K	
			12A254	Syed Kadher I	
			13A433	Bharanidhar V	
13A441	Vasantha Kumar P				

4.9. Industrial training and project

4.9.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1.	Roots Industries India Ltd., Coimbatore	72, UG6 st sem	22.07.2015	Horn Manufacturing
2.	Chandra Hyundai, Coimbatore	17, UG 2 th sem	10.09.2015	Vehicle Servicing
3.	RamaniVolkswagon Coimbatore	17, UG 2 th sem	16.09.2015	Vehicle Servicing
4.	Chandra Hyundai, Coimbatore	17, PG 2 nd sem	19.02.2016	Vehicle Servicing
5.	Roots Industries India Limited (Horn Division)Coimbatore	72, UG6 st sem	10.03.2016	Horn Manufacturing
6.	Pricol Ltd, Coimbatore	72, UG 6 st sem	-17.03.2016	Developing their knowledge and skills

4.9.2 Short term training

S.No.	Name of company	No. of students & course	Period	Area of training
1.	Ford India Pvt Ltd, Chennai	1, UG5 th sem	01.06.2015-14.06.2015	Vehicle Servicing
2.	Manchester Honda, Coimbatore	1, UG 3 rd sem	01.06.2015-15.06.2015	Vehicle servicing
3.	Royal Enfield, Chennai	1, UG 5 th sem	01.06.2015-15.06.2015	Vehicle servicing

S.No.	Name of company	No. of students & course	Period	Area of training
4.	Comstar, Chennai	1, UG 3 rd sem	01.06.2015-15.06.2015	Vehicle Servicing
5.	TOYOTA KIRLOSKAR MOTOR PVT. LTD, Bidadi, Bengaluru	1, UG 5 th sem	11.05.2015 - 11.07.2015	Vehicle Servicing
6.	BHEL, Trichy	1, UG 5 th sem	19.11.2015-27.11.2015	Vehicle Servicing
7.	Ford Service Station, Coimbatore	1, UG 3 rd sem	15.11.2016-30.11.2015	Vehicle Servicing
8.	CAI Pvt, Ltd, Coimbatore	3, UG 2 nd sem	22.12.2015-28.12.2015	Vehicle servicing

4.9.3 Project work / Internship

S. No.	Name of company	No. of students & course	Period	Area of work
1.	JayemAutomotives, Coimbatore	3, UG 8 th sem	01.06.2015 – 30.04.2016	Intelligent speed Adaption of two wheelers
2.	Robert Bosch, Coimbatore	12, UG 8 th sem	26.10.2015-30.04.2016	Torque sensing Mechanism, Manual over ride of Continuous Variable Transmission, Adblue Purging from Dosing Module chamber without using External Power, Design of compact weeded Machine
3.	Volvo, Bengaluru	2, UG 8 th sem	01.12.2015 – 31.01.2016	Service time optimisation and process improvement
4.	TVS Motors Ltd, Hosur	2 PG 4 th sem	01.12.015-31.03.2016	Vibration Analysis of Hand Start Lever
5.	Bull machines, Coimbatore	2, UG 8 th sem	02.12.2015-29.01.2016	Automatic Parking Brake Assist
6.	Ford India motors Pvt Ltd, Chennai	1, PG 4 th sem	07.12.2015-31.05.2016	Reduction of Noxin Single Cylinder Four Stroke CI Engine
7.	Hyundai Motors India Limited, Chennai	2 PG 4 th sem	07.12.2015-05.02.2016	Design and development of an ergonomic work assist system for manual loading of car dashboard assembly
8.	Wabco India Ltd, Chennai	1 PG 4 th sem	07.12.2015-31.05.2016	Virtual ABS Homologation Testing Under Inter-Disiplinary Simulation Approach
9.	TVS Motors India, Hosur	2 PG 4 th sem	07.12.2015-29.04.2016	Eliminating Wrong Assembly Defects in Vehicle Assembly During Leveled Process
10.	Wabco India Ltd, Chennai	2, UG 8 th sem	09.12.2015-09.03.2016	Damping Characteristic Study on Single Box Lift axle System
11.	Indoshell Cast, Coimbatore	3, UG 8 th sem	21.12.2015 - 31.03.2016	Reduction of shrinkage defect in Reciprocating Piston

S. No.	Name of company	No. of students & course	Period	Area of work
12.	Royal Enfield, Chennai	2, UG 8 th sem	04.01.2016 – 31.03.2016	Reducing gear shifting issues in Royal Enfield Motor cycle using vision system
13.	ZF Gearbox, Coimbatore	3, UG 8 th sem	04.01.2016 – 30.04.2016	Investigation and Market Analysis of Back hoe loaded Gear Box
14.	L.G.Balakrishnan, Coimbatore	10, UG 8 th sem	01.01.2016 – 30.04.2016	Contact Stress Analysis of Inverted tooth (silent) chain and sprockets, Validation of timing chain of ToyatoEtios diesel engine,
15.	PSGTECHS COE INDUTECH, Coimbatore	3, UG 8 th sem	07.01.2016- 28.04.2016	Development of filter media for catalytic convertor from coir path
16.	BMW, Germany	1, UG 8 th sem	20.01.2016 – 30.04.2016	Development of electric drive train for K03
17.	Pricol Technologies, Coimbatore	2 PG 4 th sem	20.01.2016- 31.03.2016	Redesign and analysis of water pump with aluminum alloy

4.10. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1.	JAjay (10A203)	MS	HAN University, Netherlands
2.	C Siddharth Narayanan (10A249)		FH Aachen, Germany
3.	B Seenu (10A245)	ME	College of Engineering, Guindy, India
4.	R Shylendran(10A248)		PSG College of Technology, India
5.	N Manjunath(11A437)	MBA	PSG Institute of Management, India
6.	GSrinath(11A445)		Sona School of Management, India
7.	S.Nitheswar (11A227)	MS	HAN University , Netherlands
8.	K.Harish (11A215)		Linthoren University, Netherlands
9.	M.Vinodh (12A257)	MS	Clemson University USA
10.	V.Hari Prakash (13A436)		
11.	S. Saranjith (12A244)	MBA	Christ University Bangalore
12.	M.Ranjith (12A239)		
13.	MithunBalaji (12A225)		
14.	K.P.Saravanan (12A245)		
15.	A.Sricharan (12A250)		PSG Institute of Management Coimbatore
16.	V.Thiagarajan (12ms07)	Ph.D	Anna University, Chennai

4.11. No. of students passed out

Year	UG	PG	Year	UG	PG
2003	28		2011	29	12
2004	29		2012	59	18
2005	29		2013	46	16
2006	29		2014	58	12
2007	27		2015	64	17
2008	32		2016	68	15
2009	30				
2010	32				

5. SUMMARY

S.No.	Activity	No.	
1.	International conferences conducted	1	
2.	National conferences conducted	1	
3.	Workshops conducted	21	
4.	Short-term training programs conducted	21	
5.	Sponsored research projects ongoing	7	
6.	Sponsored research projects completed till date	2	
7.	Scholars pursuing doctoral research	26	
8.	Doctorates produced till date	1	
9.	Papers published in international journals	17	
10.	Papers published in national journals	1	
11.	Papers presented in national conferences	15	
12.	Awards won by students	33	
13.	No. of. students passed out during 2015-16	UG	68
		PG	15
14.	No. of. students passed out till date	UG	560
		PG	90

DEPARTMENT OF BIOMEDICAL ENGINEERING

ABOUT THE DEPARTMENT

Biomedical Engineering (BME), started in the year 2006, is a field that integrates Mathematics, Physics, Chemistry and Biology to solve medically relevant problems. It uses engineering approaches and methodologies to solve problems in medicine. The proliferation of new tools and technologies are enabling biomedical engineering to characterize the function and properties of many biological tissues and to simulate the biological processes. These powerful technologies offer vast new possibilities for enhancing our understanding of complex living organisms and for preventing diseases, maintaining health and improving the quality of life. Biomedical engineering also brings quantitative analysis and rational design approaches to many other domains such as agriculture and food technology, basic life science and pharmaceuticals apart from biomedical devices.

Examples of Biomedical Engineering activities include medical device design, fabrication and testing, prosthesis fabrication, physiological function monitoring, home health care technology development, biomedical information, functional imaging and tomography, biomaterial development and biocompatibility, artificial tissue and organ fabrication, development of biosensors, telemedicine equipments and biomedical microsystems.

The demand for engineers with background in biology and medicine is growing rapidly. Biomedical engineers play key roles in designing and developing new instruments, deploying the emerging information infrastructure and creating new biomaterials and medical devices. Exciting new vistas are opening in molecular design, tissue engineering, computational biology and dynamic imaging of organs. Biomedical engineers are highly valued by new companies capitalizing on the revolution of the applications of advanced computers to biomedical problems. Individuals with degrees in biomedical engineering will find rewarding careers in industries, hospitals, medical schools and research institutions.

One of the great advantages of studying biomedical engineering at PSG College of Technology is the opportunity for the students to get hands-on-training at PSG Institute of Medical Sciences and Research (PSGIMS&R) which is an integral part of PSG Institutions managed by PSG & Sons Charities. PSGIMS&R offers an undergraduate programme in medicine and several post graduate programs approved by All India Institute of Medical Sciences. The infrastructure of PSGIMS includes a 700 bed hospital with super speciality, a well stocked library and computing facility.

A brief on research activities

The research activities actively carried out in the Biomedical Engineering Department are in the areas of Biomedical Image Processing, signal processing, developing medical devices, biomedical sensors, wireless biosignal transmission and developing nano engineered materials. The Image Processing applications being developed include Development of Biometric Identification Systems using the Hand Vein Biometric and 3D Face Recognition and Development of Advanced Techniques for Mammogram Analysis. Research in these areas is supported by Image Processing Software Suites such as Halcon IDE, Aphelion Software Suite and the NI Vision software. Development of Low Cost Medical Devices is another area being focused by the department. Using high end software such as LabVIEW and hardware such as Rabbit, ARM, AVR processors and PSoC kits from Cypress Semiconductors, faculty members and students are involved in the development of devices such as Gait Analyser, Body Fat Monitor, Color Blindness Tester, Development of Wireless electrodes for vital physiological parameters, Sleep Study Monitor etc. New non-invasive techniques to process the bio signals using a variety of mathematical formulae/algorithms has been identified and analyzed for the development of low cost biomedical instrumentation systems such as wheelchair for severely disabled/old people and Sleep apnea detection. In the field of wireless technologies the research is being focused on inter symbol interference (ISI). To combat ISI in wireless ECG, EEG and EMG signals

equalizer technique are being proposed. The Blind equalizers are used for removing ISI without knowing training sequence in the receiver side. This helps in developing patient monitoring system, wireless ambulance communication system etc. In the field of nanotechnology, design and development of new and novel nanoscale/ nanostructured materials were carried out based on the nanoengineered materials, fuel cells and hybrid structured solar cells were developed. On the other hand, nanoengineered biomedical materials decorated on template nano fibres for wound healing application are under process. Printed polymer electronics for OLED and LED application are the prime focus.

Major areas of research

- Biomedical Signal/Image Processing
- MEMS based Biomedical Sensor Design and Development
- Embedded System Development and Wireless Technologies
- Bio–nanotechnology and Tissue Engineering

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr.C.Lakshmi Deepika, Ph.D Professor&Head	cld@bme.psgtech.ac.in	1998	Image processing
2.	Dr.B.Padmapriya, ME, Ph.D Assistant Professor(SL.Gr.)	bpp@bme.psgtech.ac.in	2010	Applied electronics
3.	Dr.D.Brindha, MTech, Ph.D Assistant Professor(Sr.Gr.)	brn@bme.psgtech.ac.in	2007	Biomedical engineering
4.	Ms.N.Subhashini, ME Assistant Professor(Sr.Gr.)	nsi@bme.psgtech.ac.in	2007	Applied electronics
5.	Mr.S.Gopalakrishnan, ME Assistant Professor(Sr.Gr.)	sgk@bme.psgtech.ac.in	2008	Applied electronics
6.	Ms.L.Priya, ME Assistant Professor(Sr.Gr.)	lpm@bme.psgtech.ac.in	2009	Applied electronics
7.	Ms.B.Banu Rekha, ME Assistant Professor(Sr.Gr.)	bbr@bme.psgtech.ac.in	2009	Medical electronics
8.	Mr.S.Saravanan, ME Assistant Professor(Sr.Gr.)	ssr@cse.psgtech.ac.in	2006	Applied electronics
9.	Mr.K.Umesh, ME Assistant Professor(Sr.Gr.)	kuh@bme.psgtech.ac.in	2010	Biomedical engineering
10.	Ms.P.Prema, ME Assistant Professor(Sr.Gr.)	ppr@bme.psgtech.ac.in	2011	Medical electronics
11.	Ms.M.S.Sangeetha, MTech Assistant Professor(Sr.Gr.)	mss@bme.psgtech.ac.in	2013	Biopharmaceutical
12.	Ms.Pradeepa, ME Assistant Professor	gpa@bme.psgtech.ac.in	2014	Electrical Machines
13.	Ms.L.Vijayapurani, MTech Assistant Professor	lvp@ bme.psgtech.ac.in	2014	Biomedical Engineering
14.	Mr.E.Balaji, ME Assistant Professor	balajipsg26@gmail.com	2016	Applied Electronics

2. FACULTY DEVELOPMENT

2.1 Higher study

S. No.	Name of faculty	Programme	Year of joining & status
1.	Mr.S. Gopalakrishnan	Ph.D	2010 Ongoing
2.	Ms.B. Banu Rekha	Ph.D	2011 Thesis Submitted
3.	Dr.B. Padmapriya	Ph.D	2011 Completed
4.	Dr.D. Brindha	Ph.D	2012 Completed
5.	Ms.L. Priya	Ph.D	2012 Thesis Submitted
6.	Ms.N. Subhashini	Ph.D	2013 Ongoing
7.	Ms.M.S.Sangeetha	Ph.D	2013 Ongoing
8.	Ms.P.Prema	Ph.D	2015 Ongoing
9.	Mr.S.Saravanan	Ph.D.	2015 Ongoing
10.	Mr.K.Umesh	Ph.D.	2015 Ongoing

2.2 Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.D.Brindha Dr.B.Padmapriya	Hands on workshop on Digital Image Processing using MATLAB	PSG CNCE, Coimbatore	08.08.2015 - 09.08.2015
2	Ms.G.Pradeepa	The hands on workshop on Arduino with MATLAB Simu link	PSG CT, Coimbatore	22.08.2015
3	Ms.B.Banu Rekha	Workshop on Signal Processing, Image Processing and Computer Vision using MATLAB	Mathworks (India) Pvt. Ltd	02.09.2015
4	Ms.L.Priya	Workshop on Neurofeedback for Neuromedicine	PSG Institute of Management	18.09.2015
5	Ms.G.Pradeepa Ms.L.Vijayapurani	Arduino with Matlab Simulink hands on workshop	PSG CT, Coimbatore	12.03.2016 13.03.2016
6	Dr.D.Brindha	TEQIP II Sponsored Two day workshop on Machine Learning & pattern Classification	PSG CT, Coimbatore	12.05.2016 - 13.05.2016
7	Ms.G.Pradeepa Ms.L.Vijayapurani	TEQIP II Sponsored workshop on Mobile Application Development for Healthcare	PSG CT, Coimbatore	23.05.2016 28.05.2016

2.3 Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of the faculty	Programme	Organizer	Period
1.	Mr.S.Gopalakrishnan	National workshop on Image processing for Biomedical Applications	Amrita School of Engineering, Amrita Viswa Vidyapeetham, Coimbatore	12.06.2015 - 13.06.2015

S.No.	Name of the faculty	Programme	Organizer	Period
2.	Dr.D.Brindha Dr.B.Padmapriya	National workshop on Image Processing for Biomedical Applications	Amrita School of Engineering, Amrita Viswa Vidyapeetham, Coimbatore	12.06.2015 - 13.06.2015
3.	Ms.B.Banu Rekha	A hands on training in Logic analyzers, MSO 3000 series, MSO 4000 series equipments	M/S Keysight Technologies at PSG-Keysight Baseband communication and advanced embedded systems lab, PSG CT	12.06.2015 - 13.06.2015
4.	Ms.L.Vijayapurani	One day Auditors Training programme for faculty	PSG CT, Coimbatore	27.06.2015
5.	Dr.B.Padmapriya	7th WACBE (World Association for Chinese Biomedical Engineers) World Congress on Bioengineering	National University of Singapore, Singapore	06.07.2015 - 08.07.2015
6.	Ms.B.Banu Rekha	Two day workshop on Android Application Development (Hands-on)	Dept. of Information Technology, PSG CT	08.08.2015 - 09.08.2015
7.	Ms.L.Priya	Wireless Sensor Networks-A Cognitive Perspective using netsim	Dept. of ECE, PSG CT	22.08.2015
8.	Ms.B.Banu Rekha	Control System using Matlab and Simulink	Dept. of Instrumentation and Control Systems, PSG CT	29.08.2015
9.	Dr.B.Padmapriya	Seminar on Cancer cell detection using Image Processing Techniques	Dept. of Computer Science and Engineering, SNS College of Technology, Coimbatore	03.09.2015
10.	Ms.N.Subhashini Ms.L.Priya Ms.M.S.Sangeetha	Workshop on Neurofeedback for Neuromedicine	Department of Biomedical Engineering and PSG Institute of Management	18.09.2015
11.	Ms.P.Prema	Workshop on Neuro Feedback for Neuro Medicine	PSG Institute of Management and Dept. of Biomedical Engineering, PSG CT	18.09.2015
12.	Ms.P.Prema	Workshop on Data Analytics using R	Dept. of CSE, PSG CT	10.10.2015
13.	Ms.G.Pradeepa Ms.L.Vijayapurani	Smart Machines Seminar	National Instruments, Coimbatore	15.10.2015
14.	Ms.B.Banu Rekha	Workshop on Education Technology	PSG CARE at PSG IM	04.12.2015
15.	Ms.L.Vijayapurani	Workshop on Role of Visualization in Engineering	PSG CARE	04.12.2015

S.No.	Name of the faculty	Programme	Organizer	Period
		Education		
16.	Ms.M.S.Sangeetha	Mentoring faculty towards Effectiveness	PSG CARE at PSG IM	05.12.2015
17.	Ms.B.Banu Rekha	IEEE workshop on Computational Intelligence: Theories, Applications & Future Directions	IIT Kanpur & IEEE UP Section CIS Chapter	14.12.2015 - 17.12.2015
18.	Ms.B.Banu Rekha	User awareness session for the scopus database subscribed by the PSG Institutions	PSG CT, Coimbatore	17.12.2015
19.	Ms.P.Prema	TEQIP Phase II sponsored "Train – The – Trainers Programmes" for the Anna University – NASSCOM 'Foundation skills in Intergated Product Development (FSIPD)	Educational Technology Centre, PSG CT, Coimbatore	19.01.2016 - 23.01.2016
20.	Ms.B.Banu Rekha	Training course on Radiation safety certification for service engineers in Diagnostic Radiology	Government of India Bhabha Atomic Research Centre, Mumbai	18.01.2016 - 22.01.2016
21.	Ms.L.Priya Ms.B.Banu Rekha Ms.P.Prema	A half day session on "Funding opportunities and Writing effective proposals for Research Funds" by Dr.Prasadaraju	PSG CARE, at PSGIM Alumni Hall	08.02.2016
22.	Ms.G.Pradeepa Ms.L.Vijayapurani	Workshop on "Raspberry Pi(from scratch to Apps)	ISTE Chapter and FOSS club in collaboration with SREC-Pricol Technologies Innovation center, Sri Ramakrishna Engineering College, Coimbatore	03.03.2016 - 04.03.2016
23.	Dr.B.Padmapriya	Two day certification course on "Intellectual property and Innovation Management"	PSG Tech and ACCS, Coimbatore Chapter	22.04.2016 - 23.04.2016
24.	Ms.B.Banu Rekha	Workshop on "Google Moodle"	PSG CARE, at PSGIM Alumni Hall	22.04.2016
25.	Ms.M.S.Sangeetha Ms.B.Padmapriya	Certificate course on Intellectual Property and Innovation Management	Dept.of Computer Applications, PSG Tech, Coimbatore	22.04.2016 - 23.04.2016
26.	Ms.B.Banu Rekha	CII Godrej GBC-Advanced Training Programme on Energy Efficiency	Confederation of Indian Industry (CII)	28.04.2016 - 29.04.2016
27.	Ms.L.Vijayapurani	TEQIP Phase-II sponsored faculty development Programme for Assistant	Educational Technology Centre, PSG Tech, Coimbatore	30.04.2016

S.No.	Name of the faculty	Programme	Organizer	Period
		Professors on Outcome Based Education		
28.	Ms.P.Prema	TEQIP Phase-II sponsored workshop on Machine Learning and Pattern Classification	Dept. of Biomedical Engineering, PSG CT	12.05.2016 - 13.05.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr.B.Padmapriya	Seminar	Cancer cell detection using Image Processing Techniques	Dept. of Computer Science and Engineering, SNS College of Technology	03.09.2015

2.5 Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1.	Dr.B.Padmapriya	Affiliation Member of Inspection Committee	Anna University, Chennai
2.	Ms.L.Priya	Member	Biomedical Engineering Society of India ISTE
3.	Ms.P.Prema	Life Member	Biomedical Engineering Society of India

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No	Laboratory name	Equipment details	Cost in INR (laks)
1.	Biomechanics Lab	Biomechanics Lab Equipment	1.03
2.	Biomechanics Lab	Biomechanics Lab Equipment	1.19
3.	Biomedical Equipments Lab	Biomedical Equipments	1.77
4.	Mems Lab	Comsol s/w	1.61
5.	Cypress Lab	Multi Biometric Developer Kit	7.55
6.	Assistive Technology Lab	Thermal Camera	5.20
7.	Biomedical Equipments Lab	Biomedical Equipments	1.55
8.	Electron Devices Lab	LCD Projector CP-X3030 Hitech	0.71
9.	Electron Devices Lab	Supply of analog system design kit ASLK Pro	3.38
10.	Electron Devices Lab	7.0kw Magnetic Hyperthermia System	12.39
11.	Assistive Technology Lab	High temperature tabular furnace	1.77
12.	Assistive Technology Lab	High temperature high pressure autoclave	3.21
13.	Assistive Technology Lab	IP based dual camera	0.80
14.	Assistive Technology Lab	IP based dual camera Ethernet cable	0.28
15.	Assistive Technology Lab	IP based dual camera Application software	0.30

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (lakhs)
1.	Development of Iron Oxide - Hydroxyapatite nano particles for hyperthermia and Biomedical Applications	Dr.A.Kandaswamy Dr.N.Meenakshi Sundaram	DST	2014 – 2017 In Progress	3 years	35.13
2.	Design and Development of a novel multi-parameter pain monitoring system for children	Dr.C.Lakshmi Deepika Dr.D.Brindha	DST	2016 - 2018 In Progress	2 years	30.29

3.2.1. Sponsored research activities – Abstract

Development of Iron Oxide - Hydroxyapatite nano particles for hyperthermia and Biomedical Applications

Hyperthermia is a mode of cancer treatment by increasing temperature resulting from the thermal energy released by magnetic nanocrystals in an external alternating magnetic field. This heat treatment is recognized as new and promising form of cancer rehabilitation apart from surgery, chemotherapy, and radiation therapy. Thus, developments of suitable functionalized magnetic biomaterials that can destroy the cancer cells and at the same time induce bone regeneration are needed. Iron oxide nanocrystals are ideal materials for biomedical applications, due to their well-established biocompatibility and inherent multi-functionality. Amongst the biocompatible materials used, bioceramic hydroxyapatite (HAp) is preferred due to its known biocompatibility, nontoxicity and bioactivity. Therefore, nano size hydroxyapatite with magnetite are expected to be useful, where HA possesses better bone-bonding ability with hard tissues such as bone and teeth and also can serve as a medium to hold the magnetite that can act as thermal seeds under high frequency magnetic field. So, in this project we propose to prepare the magnetite / hydroxyapatite composite by using the nano-sized magnetite particles that could generate much heat in an alternating magnetic field.

Design and Development of a novel multi-parameter pain monitoring system for children

In the course of the post-operative phase, either over or under-dosage of the analgesic will cause adverse effects on the patient. Important signs which develop in response to stress or painful stimuli are increased breathing or heart rate and blood pressure. Particularly in infants, who are unable to communicate clearly about their pain, assessment of pain has remained an enigma over the past two decades. Infants who experience severe pain and not treated properly are at the highest risk for Neurological Impairment (NI). With the increasing number of surgeries in hospitals for children, and with the growing dearth of experienced doctors, an algorithm for pain index (objective) to indicate the infant's level of pain will be helpful to reduce the consequences of high doses of analgesics given unnecessarily. To appropriately manage the infants, a reliable and valid approach to assessing pain is required. Hence, in the proposed study we would like to develop a multi parameter pain monitor

device (integrating bio- physiological and behavioral features) and hence to come up with a pain index that may reduce the potential risk of higher dosages of analgesics. In this proposed idea, a configuration of facial actions and physiological parameters such as perfusion index, ECG, skin conductance, SpO₂ and PPG that signals pain of children 4 -10 years is studied so that assessing the presence of pain becomes more efficient. Facial movements (brow lowering, orbit tightening, upper-lip rising, and nose wrinkling and eye closure.) can be extracted by video processing of the post operative infants. While the samples for the physiological parameters are obtained from the recordings of the patient monitors in trauma wards and post operative wards.

3.3. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1.	Mr.S.Gopala krishnan	Medical image processing	Dr.A. Kandaswamy, Professor, Department of Biomedical Engineering, PSG CT, Coimbatore	03.09.2010/Ongoing
2.	Ms.Bindu Salim	Polymer electronics for medical applications		03.09.2010/Ongoing
3.	Ms.B.Banu Rekha	Biosignal processing		17.02.2011/Thesis Submitted
4.	Mr.M. Alagappan	Nanotechnology	Dr.A. Kandaswamy, Professor, Department of Biomedical Engineering, PSG CT, Coimbatore	18.01.2012/Ongoing
5.	Dr.D. Brindha	Medical Image Processing		02.07.2012/ Completed
6.	Ms.L. Priya	Wireless communication		02.07.2012/ Thesis Submitted
7.	Ms.N.Subhashini	Hybrid Pattern Recognition		14.12.2013/Ongoing
8.	Ms.M.S. Sangeetha	Nanobiotechnology		11.12.2013/Ongoing
9.	Ms.K.Chandra Devi	Nanotechnology		19.07.2014/Ongoing
10.	Ms.P.Prema	Brain Computer Interface	Dr.T.Kesavamurthy, Asst. Professor Department of ECE, PSG CT, Coimbatore	09.02.2015/Ongoing
11.	Mr.S.Saravanan	Nanophotonics	Dr.R.Arun Kumar Assistant Professor Dept. of Physics PSG CT, Coimbatore	03.08.2015/Ongoing
12.	Mr.K.Umesh	Nanophotonics		23.07.2015/Ongoing
13.	Mr.K.L.Palanisamy	Iron Oxide Nanoparticles	Dr.N. Meenakshi Sundaram Associate Professor Department of Biomedical Engineering PSG CT, Coimbatore	01.08.2007/Ongoing
14.	Ms.V.Devabharathi	ZnO and Silver nanomaterials		01.08.2007/Ongoing
15.	Ms.R.Nithya	Nanomaterials for hard tissue		11.12.2013/Ongoing
16.	Ms.M.Sneha	Magnetic nanomaterials for Hyperthermia		11.12.2013/Ongoing
17.	Mr.K.Umapathi	Design and simulation of CNT based sensors		11.12.2013/Ongoing
18.	Ms.T.Gayathri	Design and Development of		11.12.2013/Ongoing

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
		Gadolinium/Manganese based nanoparticles coated with mesoporous silica for medical imaging and diagnostics		
19.	Mr.S.Vigneshraj	Nanobiomaterials for implant application		11.12.2013/Ongoing
20.	Ms.S.Sree Niranjana Bose	Biomedical signal processing	Dr.A. Kandaswamy, Professor, Department of Biomedical Engineering PSG CT, Coimbatore	31.08.2015/Ongoing
21.	Ms.S.Saranya Devi	Biomedical signal and Image processing	Dr.C.Lakshmi Deepika, Professor & Head, Department of Biomedical Engineering PSG CT, Coimbatore	08.07.2016/Ongoing

3.3.1. Doctoral research – Abstract

Certain Investigations on Texture Analysis of Ultrasound Uterine Image for Characterisation of Uterine Leiomyomas and Adenomyosis

Guide: Dr. A. Kandaswamy

Candidate: Ms.D.Brindha

The objective of this work is to develop a statistical texture based image analysis system to classify between uterine leiomyomas and adenomyosis from uterine ultrasound imaging. Ultrasound is an acoustic wave that interacts with the human body depending upon the mechanical properties of the medium. It is a non-invasive diagnostic imaging modality, which is mainly subjective. Diagnosis and classification of disease conditions using the characteristics of the acoustic signal, such as frequency, texture, attenuation and statistical characteristics, requires the knowledge of interaction between tissues and the ultrasound echo signal. The need for development of a quantitative diagnostic method for classification of uterine leiomyomas and adenomyosis using ultrasound is very medically (QUS) method for classifying uterine leiomyomas and adenomyosis, based on the statistical texture significant. Novel quantitative ultrasound techniques are being developed for detecting diseases, classifying tumors and monitoring the effects of therapy. In this study, a quantitative ultrasound analysis of echo envelopes has been introduced.

3.4 Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in lakhs INR
1.	Dr.C.Lakshmi Deepika Dr.B. Padmapriya	M/S Robert Bosch Engineering and Business Solutions(India) Coimbatore	A system for automatic platelet counting from peripheral smear slides	3.00
2.	Dr.C.Lakshmi Deepika Dr.D.Brindha		Automated Diagnosis of cervical cancer from pap smear images	3.00

3.5 Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department library	316	-	-	-	1	-
2	GRD Library - Biomedical engineering	4801	457	23	-	7	Nil

3.6 Board of Studies

S. No.	Date	Agenda	External experts
1	10.10.2015	Board of Studies in Biomedical Engineering <ul style="list-style-type: none"> • Critical review of the existing scheme of subjects of study and planning of foundation for preparing 2015 regulations. • Introduction of new electives for UG and research electives. • Introduction of one credit courses for UG • Any other related matter. 	1. Dr.S.Shenbaga Devi, Professor & Head, Dept. of Medical Electronics, CEG, Anna University, Chennai 2. Dr.M. Sasikala, Associate Professor, Dept. of Medical Electronics, CEG, Anna University, Chennai
2	09.04.2016	Board of Studies in Biomedical Engineering <ul style="list-style-type: none"> • Finalization of detailed syllabi for BE 2015 • Introduction of new electives • Introduction of one credit courses • Any other related matter. 	1. Dr.S.Shenbaga Devi, Professor & Head, Dept. of Medical Electronics, CEG, Anna University, Chennai 2. Dr.M. Sasikala, Associate Professor, Dept. of Medical Electronics, CEG, Anna University, Chennai

3.7. Research publications

3.7.1. Papers published in international journals

1. K.L.Palanisamy, V.Devabharathi and N.Meenakshi Sundaram, "Stability analysis of carrier oils mediated Iron Oxide nanoparticles and its photodegradation studies", *International Journal of Chemical Sciences*, ISSN:0972-768X,13(1),501-513, Sadguru, 2015.
2. R.Nithya and N.Meenakshi Sundaram,"Biodegradation and cytotoxicity of Ciprofloxacin loaded hydroxyapatite – Poly-caprolactone nano composite film for sustainable bone implants", *International Journal of Nano medicine*, ISSN:1178-2013, Divepress, 2015.
3. M. Sneha and N.Meenakshi Sundaram, "Preparation and characterization of an iron oxide-hydroxyapatite nanocomposite for potential bone cancer therapy", *International Journal of Nano medicine*, ISSN: 1178-2013,(In Press), Dovepress, 2015.
4. K.L.Palanisamy, V.Devabharathi and N.Meenakshi Sundaram, "Corrosion Inhibition Studies of Mild Steel With Carrier Oil Stabilized of Iron Oxide Nanoparticles incorporated into a paint", *International Journal of Chem Tech Research*, 7(4), 1661-1664, ISSN: 0974-4290, Sphinxsai, 2015.
5. B.Banu Rekha and A.Kandaswamy,"A Complexity reduction approach for screening of obstructive

- sleep apnea from single lead ECG" *Journal of Medical Imaging and Health Informatics*, published by American Scientific Publishers, Vol.5, pp:1668-1673, 2015.
6. D.Brindha, A.Kandaswamy and S.Subhashini, "Comparative study of Uterine Cyst Characterization using Gcm and Wavelet Transform", *International Journal of Computer Science and Information Technologies*, vol.6 (3), pp:2636-2640, June 2015.
 7. C.Lakshmi Deepika and D.Brindha, "Design of Non-Invasive Multi-parameter Pain Monitoring System" *Journal of Scientific and Industrial Research*, Published by *National Institute of Science Communication and Information Resources*, Vol.74, pp:330-333, June 2015.
 8. C.Lakshmi Deepika and D Brindha, "Design of Non-Invasive Multi-parameter Pain Monitoring System" *Journal of scientific and Industrial Research*, Vol 74, pp:330-333, June 2015.
 9. C.Lakshmi Deepika and A.Kandaswamy, "Robust Feature Extraction From Hand Biometric Images using Orthogonal Moments" *International Journal of Applied Engineering Research (IAER)*, Engineering journals, ISSN(Print): 0973-4562/ISSN(online):1087-1090, Vol.10 No.12, pp:30499-30510, Indian Publishers, Research India Publications, Nov 2015.
 10. D.Brindha, A.Kandaswamy and C.Lakshmi Deepika, "Classification of uterine fibroid, from ultrasound images using wavelet transform", *Journal of scientific and Industrial Research*, Vol 74, pp:630-633, November 2015.
 11. D.Brindha, A.Kandaswamy and C.LakshmiDeepika, "Digital Image Analysis of Uterine Ultrasound for Classification of Uterine Myoma and Adenomyoma", *Journal of Medical Imaging and Health Informatics*, Vol. 5, 1–4, December 2015.
 12. B.Padmapriya, C.Nandhini and S.Pavithra, "A Review of the Performance of De-Noiseing Filters on the Ultrasound Images", *International Journal of Applied Engineering Research*, ISSN 0973-4562, © Research India Publications, Vol.10 No.55, pp:265-269, 2015.
 13. B.Padmapriya, C. Nandhini and S. Pavithra "Literature Review of the Automatic Classification of PCOS Using Image Processing Techniques", *International Journal of Applied Engineering Research*, ISSN 0973-4562, © Research India Publications, Vol. 10 No.55, pp:270-274, 2015.
 14. B. Padmapriya, C. Nandhini and S. Pavithra, "Nebulizer Automation", *International Journal of Applied Engineering Research*, ISSN 0973-4562, © Research India Publications, Vol. 10 No.55, pp:1372-1375, 2015.
 15. B.Padmapriya and T.Kesavamurthy, "Diagnostic Tool for PCOS Classification", *Springer International Publishing*, Switzerland 2015, 7th world congress on Bioengineering 2015, pp:182-185, IFMBE Proceedings 52.
 16. L.Priya, A.Kandaswamy and R.Vineetha "Channel Interference Distortion Cancellation using Linear Transversal Finite Impulse Response Equalizer in Wireless Electrocardiogram Signal Transmission", *International Journal of Applied Engineering Research*, Research India Publications, ISSN 0973-4562 Vol.10 No.55, pp.107, 2015.
 17. L.Priya, A.Kandaswamy, V.Danvanth, NA.Chezhiyan and J.Hariram, "Performance Evaluation of Equalization Algorithms for Electrocardiogram Signal Transmission", *International Journal of Computer Science and Information Technologies*, ISSN:0975-9646, Vol.6(6), pp:5184-5188, 2015.
 18. M.Sneha, N.Meenakshi Sundaram "Preparation and characterization of an iron oxide - hydroxyapatite nanocomposite for potential bone cancer therapy" is published in *International Journal of Nanomedicine*, Vol.10 (Suppl 1: Challenges in biomaterials research), pp. 99-106. (Impact factor 4.383), 2015.
 19. B.Padmapriya and T.Kesavamurthy, "Detection of Follicles in Poly Cystic Ovarian Syndrome in ultrasound images using morphological operations" *Journal of Medical Imaging and Health Informatics*, published by American Scientific Publishers, Vol.6, pp:240-243, 2016.
 20. M.Sneha, N. Meenakshi Sundaram, A.Kandaswamy "A Novel hydrothermal synthesis of hydroxyapatite nanotubes using Ceiba pentandra (kapok) as template for biomedical applications" is published in *Digest Journal of Nanomaterials and Biostructures*, Vol. 11, No. 1, pp. 45–52, 2016. (Impact factor 0.945).
 21. M.Sneha, M.Sundaram and A.Kandaswamy, "Development of Magnetite/ Hydroxyapatite nanorods using Ceiba pentandra (kapok) Fibers as Templates for Biomedical Applications" published in *Trends in Biomaterials and Artificial Organs*, Vol.29, No.4, 2016. (Impact factor 0.69).
 22. M.Sneha, N.Meenakshi Sundaram, A. Kandaswamy, "Size controlled synthesis of one-dimensional single crystalline hydroxyapatite nanorods by hydrothermal method" is published in *Universal Journal of Materials Science*, Vol.4, No. 1, pp.8-14, 2016.
 23. L.Priya, A.Kandaswamy, R.P.Ajeesh and V.Vignesh "Adaptive Equalization Algorithm for

Electrocardiogram Signal Transmission”, *International Journal of Computational Intelligence, Cyber Security and Computational Models, Advances in Intelligent Systems and Computing* 412, DOI 10.1007/978-981-10-0251-9-22, Springer Science+Business Media Singapore, Vol.412, pp:217-226, 2016.

24. L.Priya, A.Kandaswamy, “Application of Adaptive Signal Processing for Electrocardiogram Signal Analysis: Interference Cancellation”, *International Journal of Medical Imaging and Health Informatics*, DOI 10.1166/jmihi.2016.1719, American Scientific Publishers, Vol.6, pp:1-7, 2016.
25. C.Lakshmi Deepika, A.Kandaswamy and G.Pradeepa, “An efficient method for detection of inspiration phase of respiration in thermal imaging”, *Journal of Scientific & Industrial Research*, Vol.75, pp.40-44, Jan 2016.

3.7.2. Papers presented in International conferences

1. M.Sneha, N.Meenakshi Sundaram, Poster on “Ceiba pentandra tubular fiber templated of magnetite hydroxyapatite nanorod for magnetic hyperthermia”, *Indo-Australian Conference on Biomaterials, Tissue Engineering, Drug delivery system and Regenerative Medicine*, Anna University, Chennai, 5th-7th, February 2015,
2. M.Sneha.M, Meenakshi Sundaram.N, Poster on “Hydrothermal synthesis of hydroxyapatite and Iron oxide nanotubes by template mediated method”, *Two-Day International Conference On Advances in Micro/Nanotechnologies for Biosensing Applications*, ICAMB-2015, PSG Institute of Advanced Studies, Coimbatore, 7th-8th, August 2015
3. M.Sneha, N.Meenakshi Sundaram, Poster on “Development of nanostructured apatite-magnetite for biomedical applications”, *International Conference on Nanotechnology for Biological and Biomedical Applications*, Nano-Bio-Med 2015, Indian Institute of Technology (IIT) Bombay, 1st-4th, December 2015.
4. L.Priya, A.Kandaswamy and P.Hemasai kumar, “Adaptive Filtering of Electrocardiogram signals through Kalman Algorithm”, *Proceedings of Second International Conference on Applied Mathematical Models, (ICAMM 2016)*, 5th -7th, January 2016.

3.8. Visits abroad

3.8.1. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1.	Ms.S.Aswin Farzana (12D205)	Flinder’s University, Australia	01.07.2015-07.10.2015	Student transfer programme
2.	Ms.K.Praitayini (13D231)	Colorado State University, United States	16.01.2016-16.05.2016	Student transfer programme
3.	Ms.Shahithra Srinivasan (12D243)	Boston University, United States	01.02.2016-30.05.2016	Internship

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1.	BE Biomedical Engineering - I year	49
2.	BE Biomedical Engineering - II year	62
3.	BE Biomedical Engineering – III year	70
4.	BE Biomedical Engineering - IV year	64

4.2. Awards won by students

S.No.	Roll No.	Name of student	Event	Award	Awarded by	Date
1	12D250	Ms.E.Swathy	Sports	Best Sports Woman award for 2015-16	PSG Tech, Coimbatore	Tech Day

S.No.	Roll No.	Name of student	Event	Award	Awarded by	Date
2	13D220	Mr.K.Karthik	CIT Engineering Tropy	I Place	Coimbatore Institute of Technology	10.03.2016 - 12.03.2016
3	12D208	Mr.P.Deepan Chakravarthi	Best outgoing student	Kurathalvar Award	PSG Tech	Tech day
			Meritorious service	P.D.Prakash Memorial award	PSG Tech	Tech day
			Overall Performance	Tata Consultancy Services Best student award	Tata Consultancy Services	18.03.2016

4.3. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Medical product development	Mr.V.Ramesh DGM-Design, Lakshmi Life Sciences, Coimbatore	14	09.10.2015
2.	Development of Image Processing algorithms for automated diagnosis	Mr.S.Guru Prasad General Manager,Healthcare Robert Bosch Engineering Solutions, Bangalore	14	03.12.2015

4.4 Final year project work

4.4.1 UG project (regular)

S.No.	Roll No	Name	Title of the project	Guide	Industry /Institute associated
1.	12D204	M.B.Aruna	Image Processing for Tuberculosis diagnosis	Ms.D.Brindha	Aries Biomed, Coimbatore
	12D235	P.Priyanka			
	12D252	A.V.R Vignesh			
	13D436	P.Ranjitha			
	12D238	N.Revathi			
2.	12D205	M.Aswin Farzana	Automated Screening of Cervical Cancer Using Pap-Smear Images	Ms.D.Brindha	Robert Bosch, Bengaluru
	12D212	S.Gayathri			
	12D222	R.KirthikaDevi			
	12D234	M.S.Priya dharshini			
	12D248	S.Subbhashini			
3.	12D208	P. Deepan Chakravarthi	Immunoassay from finger prick of blood on a microfluidic platform	Ms.B.Banu Rekha Dr.SatishKalme	Achira Labs Pvt. Ltd, Bengaluru
4.	12D209	G.Deepthishre	Lung compliance and resistance measurement in High	Prof.K.K.Venkata raman	PSG IAS, Coimbatore
	12D221	R.Keerthana			

S.No.	Roll No	Name	Title of the project	Guide	Industry /Institute associated
			end ICU ventilators and its Applications		
5.	12D210	R.Ganesh Balaji	Platform for sharing health profile and statistics to doctors	Mr.K.Umesh	Cooley Technologies, Bengaluru
6.	12D213	P.Golden Annisha	Control scheme for assist devices using Facial EMG	Ms.N.Subhashini	PSG IMS&R, Coimbatore
	12D223	M.Kiruthika			
	13D432	N.Naveena			
	13D442	U.Vidya			
7.	12D215	K.R.Iswarya Raj	Detection of P300	Mr.K.Umesh	PSG IMS&R, Coimbatore
	13D435	S.Preethi			
	13D439	D.Sneha			
	13D444	R.Vignesh Preethi			
8.	12D226	K.Mavithasri	CT and US image registration and needle segmentation	Ms.S.Sangeetha	Perfint Healthcare, Chennai
	12D239	K.Rohini			
9.	12D229	C.Nandhini	Automated Platelet Count using Image Processing	Dr.B.Padmapriya	Robert Bosch, Bengaluru
	12D232	S.Pavithra			
10.	12D231	J.Nyndhrushree	Development of an automated system for Bacterial cell count	Dr.C.Lakshmi Deepika	PSG IMS&R, Coimbatore
	12D241	K.Sathyapriya			
	13D440	S.Vanathi			
	12D230	B.Nithyanandham			
11.	12D242	A. Sathiyapriya	Colour Blindness testing using smartphone	Ms.M.S.Sangeetha	Oscad Technologies, Chennai
12.	12D249	F.Sushma Karen	CT Dicom to 3D printing	Ms.G.Pradeepa	Medsby, Coimbatore
13.	13D438	K.Rohini	Interactive Hologram using leap motion controller	Ms.G.Pradeepa	Medsby, Coimbatore
14.	13D434	S.Prashanth	Development of Smart Watch	Ms. Vijayapurani	Titan, Bengaluru
15.	12D201	Amritha S Madhavi	Stream lining and automation of analytical solutions to improve computational efficiency	Mr.K.Umesh	Mu Sigma, Bengaluru
16.	12D202	V. Arivunithi	Breath monitor belt to assess respiratory movements - Interventional Oncologic procedures	Ms.L.Vijayapurani	Perfint Healthcare, Chennai
17.	12D203	M.Arjun	Malarial Detection- Image Processing	Ms.M.S.Sangeetha	Salzer Electronics,
	12D214	A.R.Ilakiya			

S.No.	Roll No	Name	Title of the project	Guide	Industry /Institute associated
	12D251	R.Tarunya Laxmi			Coimbatore
18.	12D206	V. Dayaalan	Design of Ultrasound based walking stick for visually challenged	Mr.S.Gopala krishnan	Radikal Medequip Systems, Chennai
	12D218	A.M. Jenith			
	12D237	J. Raymond Samuvel			
	12D443	G. Vignesh			
19.	12D211	A. Ganesh Prashanth	Nano gel for bone fracture	Ms.G.Pradeepa	Biolim Centre for Science&Tech, Chennai
20.	12D217	G Janani	Design and development of Hemodialyzer membrane	Ms.M.S.Sangeetha	PSG IMS&R, Coimbatore
	12D255	S.Vishalini			
	12D227	M.M.Monisha			
	12D246	S.Shrinithi			
21.	12D219	B.Jeyarathna	Design of TENS machine	Mr.S.Saravanan & Dr.V.Mohan das	Mohan Electricals, Cochin
	12D220	R.Kalaiarasi			
	12D247	R.Soundarya			
	12D240	G.Sathyabharathi			
22.	12D224	R. Krishna Kumar	Portable HRV Recorder	Ms.B.Banu Rekha	PSG IMS&R, Coimbatore
23.	12D225	S.Mangaiyarkarasi	Opto fludic image processing	Ms.B.Banu Rekha	Achira Labs Pvt. Ltd, Bengaluru
24.	12D228	V.Mounika	Microfluidic on chip estimation of Bilirubin	Ms.G.Pradeepa	IISc, Bengaluru
25.	12D233	S. Ponnusamy	Design and Development of Nebulizer	Dr.B.Padmapriya	PSG IMS&R, Coimbatore
	13D433	V.Nithyanandhan			
	13D431	V. Janarthanan			
26.	12D236	R.Raghul	Stream lining and automation of analytical solutions to improve computational efficiency	Ms.G.Pradeepa	Mu Sigma, Bengaluru
27.	13D437	T.Revathy	Smartphone based Pulse monitor	Ms.G.Pradeepa	Medsby, Coimbatore
28.	12D254	R.Vineetha	Medical Image stitching	Dr.B.Padmapriya	Robert Bosch, Bengaluru
29.	12D250	E.Swathy	Acoustic Power Measurement of Diagnostic Ultrasound	Ms.B.Banu Rekha	Surabhi Biomedical, Coimbatore
30.	12D253	C.Vignesh	Acoustic Power Measurement of Diagnostic Ultrasound	Ms.B.Banu Rekha	Surabhi Biomedical, Coimbatore

4.5. Competitive exam

S. No.	Exam	No. of students appeared	Students qualified	
			Roll No.	Name
1.	GRE	12	12D213	Golden Annisha.P
			12D203	Arjhun.M
			12D211	Ganesh Prasanth.A
			12D205	Aswin Farzana.M
			12D210	Ganesh Balaji.R
			12D228	Mounika. V
			12D243	Shahitra Srinivasan
			12D250	Swathy. E
			12D248	Subbashini
2.	GATE	10	12D213	Golden Annisha.P
			12D237	Raymond Samuvel.J
			12D241	Sathya Priya.K
3.	GMAT	15	12D251	Tarunya Laxmi.R
4.	TOEFL	10	12D205	Aswin Farzana.M
			12D210	Ganesh Balaji.R
			12D228	Mounika.V
			12D243	Shahitra Srinivasan
			12D250	Swathy. E
			12D248	Subbashini. S
5.	IELTS	6	12D243	Shahitra Srinivasan

4.6. Placement

Name of the company	No. of Students placed	Students Placed		Package per annum (Lakhs)
		Roll No.	Name	
Mu Sigma Business Solutions, Bengaluru	2	12D201	Amritha S Madhavi	4.50
		12D236	Raghul R	4.50
Accenture, Bengaluru	13	12D202	Arivunithi V	3.40
		12D210	Ganesh Balaji R	3.40
		12D221	Keerthana R	3.40
		12D227	Monisha M M	3.40
		12D228	Mounika V	3.40
		12D232	Pavithra S	3.40
		12D234	Priyadharsini M S	3.40
		12D237	Raymond Samuvel J	3.40
		12D253	Vignesh C	3.40
		12D255	Vishalini S	3.40
		13D437	Revathi T	3.40
		13D438	Rohini K	3.40
13D442	Vidya U	3.40		
Zifo Technologies Pvt, Ltd, Chennai	5	12D203	Arjhun M	3.40
		12D225	Mangayarkarasi S	3.40
		12D242	Sathya Priya A	3.40

Name of the company	No. of Students placed	Students Placed		Package per annum (Lakhs)
		Roll No.	Name	
		12D248	Subbashini S	3.40
		13D434	Prashanth S	3.40
Robert Bosch, Bengaluru	1	12D205	Aswin Farzana M	4.00
Infosys Technologies Ltd, Bengaluru	4	12D208	Deepan Chakravarthi P	3.25
		13D435	Preethi S	3.25
		13D436	Ranjitha P	3.25
		13D443	Vignesh G	3.25
Cognizant, Chennai	6	12D209	Deeptishre G	3.35
		12D213	Golden Annisha P	3.35
		12D217	Janani G	3.35
		12D218	Jenith A M	3.35
		12D229	Nandhini C	3.35
		13D439	Sneha D	3.35
Tata Consultancy Services Limited, Chennai	4	12D215	Iswarya Raj K R	3.30
		12D220	Kalaiyarasi R	3.30
		12D238	Revathi N	3.30
		12D254	Vineetha R	3.30

4.7 Industrial training and project

4.7.1 Project work / Internship

S.No.	Name of company	No. of students	Period	Area of work
1.	Aries Biomed, Coimbatore	5	Jan – May 2016	Image Processing for Tuberculosis diagnosis
2.	Robert Bosch, Bengaluru	8	Jan – May 2016	Automated Screening of Cervical Cancer Using Pap-Smear Images, Automated Platelet Count using Image Processing, Automated Platelet Count using Image Processing, Medical Image stitching
3.	Achira Labs Pvt. Ltd, Bengaluru	2	Jan – May 2016	Immunoassay from finger prick of blood on a microfluidic platform, Opto fluidic image processing
4.	PSG IAS, Coimbatore	2	Jan – May 2016	Lung compliance and resistance measurement in High end ICU ventilators and its Applications
5.	Cooney Technologies, Bengaluru	1	Jan – May 2016	Platform for sharing health profile and statistics to doctors
6.	PSG IMS&R, Coimbatore	20	Jan – May 2016	Control scheme for assist devices using Facial EMG,

S.No.	Name of company	No. of students	Period	Area of work
				Detection of P300, Development of an automated system for Bacterial cell count, Design and development of Hemodialyzer membrane, Portable HRV Recorder, Design and Development of Nebulizer, Design and Development of Nebulizer
7.	Perfint Healthcare, Chennai	3	Jan – May 2016	CT and US image registration and needle segmentation
8.	Oscad Technologies, Chennai	1	Jan – May 2016	Colour Blindness testing using smartphone, Interactive Hologram using leap motion controller
9.	Medsby, Coimbatore	3	Jan – May 2016	CT Dicom to 3D printing, Interactive Hologram using leap motion controller, Smartphone based Pulse monitor
10.	Titan, Bengaluru	1	Jan – May 2016	Development of Smart Watch
11.	Mu Sigma, Bengaluru	2	Jan – May 2016	Stream lining and automation of analytical solutions to improve computational efficiency
12.	Salzer Electronics, Coimbatore	3	Jan – May 2016	Malarial Detection-Image Processing
13.	Radikal Medequip Systems, Chennai	4	Jan – May 2016	Design of Ultrasound based walking stick for visually challenged
14.	Biolim Centre for Science & Tech, Chennai	2	Jan – May 2016	Nano gel for bone fracture
15.	Mohan Electricals, Cochin	4	Jan – May 2016	Design of TENS machine
16.	IISc, Bengaluru	1	Jan – May 2016	Microfluidic on chip estimation of Bilirubin
17.	Surabhi Biomedical, Coimbatore	2	Jan – May 2016	Acoustic Power Measurement of Diagnostic Ultrasound,

4.8 PSG Tech students pursuing higher studies

S.No	Name of student	Degree pursuing	University
1.	Keerthana S	MHA (Master of Hospital Administration)	Manipal University, Karnataka
2.	Madhumitha V	M.S. Biomedical Engineering	Manipal University, Karnataka
3.	Anitha V	M.S Engineering Management	Newyork University, USA
4.	Priya Krishnamoorthy	M.S. Biomedical Engineering	National University of Singapore
5.	Kavitha R	MBA	PSG IM, Coimbatore

S.No	Name of student	Degree pursuing	University
6.	Nivetha M	MBA	SRM University, Chennai
7.	Mounika	M.S. Biomedical Engineering	DUKE University, USA
8.	Deepthishre	Master in Biomedical Engineering	Delft University, Netherland
9.	Ganesh Balaji	M.S. in Medical Engineering	KTH Royal Institute of Technology, Stockholm, Sweden
10.	Ganesh Prasanth	M.S. in Medical Engineering	KTH Royal Institute of Technology, Stockholm, Sweden

4.9. No. of students passed out

Year	UG	PG
2010	42	-
2011	57	-
2012	53	13
2013	64	15
2014	66	11
2015	55	8
2016	61	-

5. SUMMARY

S. No.	Activity	No.	
1.	Workshops conducted	9	
2.	Sponsored research projects ongoing	2	
3.	Scholars pursuing doctoral research	25	
4.	Doctorates produced till date	6	
5.	Papers published in international journals	27	
6.	Papers presented in international conferences	4	
7.	Awards won by students	5	
8.	No. of. students passed out during 2015-16	UG	61
9.	No. of. students passed out till date	UG	398
		PG	47

DEPARTMENT OF CIVIL ENGINEERING

ABOUT THE DEPARTMENT

The Civil Engineering department started in the year 1953, offers BE Civil Engineering and ME Structural Engineering since 1963 and Ph.D programme in Civil Engineering. From the year 2002, ME Programme in Infrastructure Engineering is being offered at Post graduate level. The Department has 22 faculty members (seven with PhD and the remaining with post graduate qualification) augmented with two visiting professors Dr S Rajasekaran DSc and Dr L S Jayagopal PhD. Faculty members have obtained educational qualifications from Indian Institute of Technology, Kharagpur; Indian Institute of Technology, Madras and Indian Institute of Technology, Roorkee, Anna University, Bharathiar University, Mysore University, Government & Government Aided Institutions. Most of the faculty members are Fellow and Member of professional bodies in various fields of civil engineering covering the areas structural engineering, Environmental Engineering, Town-planning, concrete, soil mechanics, water resources, remote sensing, and technical education. Faculty members continuously update their knowledge by attending training programmes at IITs and IISc..

The department has organized six international conferences, many summer and winter schools, national conferences, seminars, workshops and short-term courses. It has also established a very good industry-institute interaction by offering consultancy and testing for various government and private organizations. It has successfully completed two batches of two-year foreman training programs in Plumbing and Civil Engineering for ETA-ASCON, Dubai. Currently it is also involved in the conduct of B.Tech - Construction Management Programme for IGNOU. Six Students of Worcester Polytechnic Institute carried out Interactive Qualifying Projects in the department under WPI Global Perspective Program (India Project Program).

The department has its own well-equipped computer center, with more than 70 Pentium computers, laserjet printers, color inkjet printers, multimedia kit, scanner, computer workstation, A1 size color plotter and adequate number of UPS. Software packages available in the department are AutoCAD, STAAD PRO, STRAP, ANSYS, NISA, SAP 90, SAP 2000, STARDYNE, MSC-NASTRAN, CADPLUS3D, RCDESIGN, AUTOCIVIL, MS-OFFICE, C++, C, FORTRAN, ALGOR, Visual Basic, Finite element software, BIE, Neural Network, Genetic Algorithms, Erdas imagine, ArcView, ArcView Spatial Analyst, Arc View Network Analyst, Data automation kit, R2V etc.

The department has seven laboratories including Materials and structures laboratory, Concrete laboratory, Soil mechanics laboratory, Environmental engineering laboratory, Survey laboratory, Structural dynamics laboratory, remote sensing & GIS laboratory and Computer laboratory. Active participation of faculty members in testing, consultancy services & sponsored research activities helps them to interact with industries and demonstrate the application of concepts in field and improve the teaching learning activities of the department.

The department has received a laboratory enhancement grant of Rupees Twelve lakhs and books worth Rupees one lakh under library grant of NPEEE of IIT, Kanpur during the academic year 2004-05.

The National Board of Accreditation has accredited the undergraduate programme for five years from 2014 and postgraduate programme in Structural Engineering for five years from March 2006.

The college has signed an MoU with Association of Consulting Civil Engineers (India) [ACCE (I)], for Student Mentor Programme, to train civil engineering students. Short-term courses, conferences and training programmes are organised by the department with the support of ACCE (I) and Builders Association of India (BAI). The department has established a Centre for Environment in December 2007.

Civil Engineering students has received the Koorathalwar award (the best out going student award) and has to acquired leadership quality by playing crucial roles in students union as Chairman, Secretary, House Secretary etc., Strong curriculum with opportunities for industrial training at the end of the second year during the summer vacation helped students to understand the application of concepts. Elective courses in the areas of earthquake engineering, pavement design, geosynthetics, Geographic Information Systems, remote sensing, ground water engineering along with special lectures by eminent scientists, academicians and consulting engineers organized by the civil engineering association, provide enormous opportunity to know the latest developments. Final year students are encouraged to do their project work in research labs and organizations. A few students have carried out their project works at CSIR SERC Chennai and Deakin University Australia. Many students persure their post graduate and research programmes in various universities in USA, UK, Germany, Australia and IITs, NITs and other universities in India. They continue to perform well in Build India scholarship programme of Larsen & Toubro. Many alumni are occupying leading positions in Education, Research, Design and Construction in various private and government organizations and in civil services too

A brief on research activities

The department has completed numerous research projects in postgraduate programmes and sponsored projects funded by CSIR, UGC, BARC, DRE, ARDB, MHRD, DST, AICTE, NPEEE etc. Thirty two PhDs have been awarded and eighteen doctoral research works are in progress. The department faculty have published around 615 technical and research papers in various national and international journals and conferences. Since 1963, nearly 650 postgraduate projects have been completed covering various areas of research.

Major areas of research include

- Artificial neural networks
- Composite laminate lay ups
- Earthquake resistant structures
- Fibre reinforced concrete
- Fibre composites
- Finite element analysis
- Ferro cement concrete
- Genetic algorithm
- Non-linear analysis of concrete
- Object oriented design
- Remote sensing and GIS
- Stability of thin walled structures

Brief on consultancy and testing activities

All laboratories of civil engineering department have been recognized as centers for conducting quality control tests on building / structural materials.

The department has undertaken a large number of consultancy works both for Government and Private organizations such as TNEB, TWAD, CPWD, MES, KFRI, Konkan Railway Corporation, Southern Railway, Wheel and Axle Plant, NEPC-MICON Ltd., L&T Ltd., URC Constructions, ELGI Equipments, Texmo Industries, SNR & Sons Trust etc., in the form of problem solving, analysis, design and testing, in addition to quality control testing on building materials and structural components.

Important consultancy services include

- Concrete mix design
- Contour survey
- Distress monitoring of structures
- Finite element analysis of complex structures
- GIS and remote sensing
- Rehabilitation of structures
- Structural analysis and design of concrete and steel structures
- Soil investigation and field tests
- Stress analysis of complicated structures
- Traffic survey
- Water and air quality analysis

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.G.Sankarasubramanian Ph.D Professor and Head	gsa@civ.psgtech.ac.in	1986	Structural Engineering, Structural Mechanics, Computer Methods of Structural Analysis, Non-linear Analysis of Concrete Structures
2	Dr.J.V.Ramasamy, Ph.D Professor	jvr@civ.psgtech.ac.in	1980	Structural Engineering, Structural Mechanics, Computer Method of Structural Analysis, Expert systems
3	Mr.Surendranath Muller M.Tech Associate Professor	snm@civ.psgtech.ac.in	1975	Structural Engineering, Engineering Mechanics, Optimization Techniques
4	Mr. R.Ragupathy, M.E Associate Professor	rrp@civ.psgtech.ac.in	1980	Structural Engineering, Structural Mechanics, Concrete Technology
5	Dr. M.Palanikumar, Ph.D Associate Professor	mpk@civ.psgtech.ac.in	1989	Soil Mechanics, Foundation Engineering, Engineering Mechanics
6	Dr. K.Nalinaa, Ph.D Associate Professor	kna@civ.psgtech.ac.in	1990	Structural Engineering, Structural Mechanics, Structural Analysis, Neural networks, Genetic Algorithms, Evolution Strategies, Composite Structures
7	Dr. M.Ibrahim Bathusha Ph.D Associate Professor	mib@civ.psgtech.ac.in	1996	Environmental Engineering, Wastewater Treatment, Solid waste management, Engineering mechanics

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
8	Mr. M.Manivannan, M.E Associate Professor	mmv@civ.psgtech.ac.in	1997	Structural engineering, Structural analysis, Solid and Fluid mechanics, Hydraulics and hydraulic machinery, Reinforced concrete structures
9	Ms. A.Thilagam, M.T.P Associate Professor	atp@civ.psgtech.ac.in	1995	Architecture, Town planning, Building science
10	Mr. C.G.Sivakumar, M.E Associate Professor	cgs@civ.psgtech.ac.in	1995	Structural engineering, Structural dynamics, Structural mechanics, Reinforced concrete & steel structures
11	Dr. P.Senthilkumar, Ph.D Associate Professor	psk@civ.psgtech.ac.in	1996	Soil mechanics, Foundation Engineering, Surveying
12	Dr. K.Elangovan, Ph.D Associate Professor	ela@civ.psgtech.ac.in	1997	Geology, Ground water, Remote sensing & GIS
13	Mr. A.Rajkumar, M.E Assistant Professor	ark@civ.psgtech.ac.in	2003	Environmental engineering, Strength of materials, Engineering mechanics
14	Mr.T.Ramesh, M.E Assistant Professor	ram@civ.psgtech.ac.in	2004	Structural engineering, Concrete technology
15	Ms. V.Vanathi, M.E Assistant Professor	vna@civ.psgtech.ac.in	2012	Structural engineering
16	Mrs.N Dharani Assistant Professor	nda@civ.psgtech.ac.in	2016	Structural engineering
17	Mr G.Venkatraman Assistant Professor	gvr@civ.psgtech.ac.in	2016	Structural engineering
18	Ms. S. Sharmila, M.E Assistant Professor(Sr. Gr)	ssa@civ.psgtech.ac.in	2010	Structural engineering
19	Mr. S.Praveenkumar, M.E Assistant Professor	spk@civ.psgtech.ac.in	2013	Structural engineering
20	Mr. K.Prabhakaran, M.Tech Assistant Professor	kpr@civ.psgtech.ac.in	2013	Structural dynamics
21	Mrs M.Rajeswari Assistant Professor	mra@civ.psgtech.ac.in	2016	Structural Engineering
VISITING FACULTY				
22	Dr.S.Rajasekaran, D.Sc Professor	srs.civ@gapps.psgtech. ac.in	1966	Structural engineering, Finite element methods, Stability of structures, Expert systems, Genetic algorithms, Artificial neural networks, Composites

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
23	Dr.L.S Jayagopal	Professorlsj@gmail.com		Structural Engineering, Steel Structures, Stability, Analysis and Design & Rehabilitation of Structure

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mr. S.Praveenkumar,	Ph.D	2014, Ongoing
2	Mr. T.Ramesh	Ph.D	2014, Ongoing
3	Mrs M.Rajeswari	Ph.D	2015, Ongoing

2.2. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Ms S Sharmila	TEQIP Phase II sponsored one day seminar on "Patenting"	PSG CT, Coimbatore	14.03.2015
2	Dr K Elangovan	TEQIP sponsored "quality circle group workshop"	PSG CT, Coimbatore & Quality centre, chennai	27.03.2015 - 28.03.2015
3	Dr K Elangovan	Two week ISTE_STTP on Environmental Studies conducted by National Mission on Education Through ICT (MHRD)	IIT Bombay	02.06.2015- 12.06.2015
4	Ms S Sharmila	Workshop on "High Performance Computing"	Department of Computer Applications PSG CT, Coimbatore	12.08.2015
5	Ms S Sharmila Mr S Praveenkumar	Training Programme on use of software tools available on PARAM SHAVAK super computer applications	Computer Applications, PSG CT, Coimbatore	13.08.2015- 14.08.2015
6	Mr C G Sivakumar	ISTE STTP for on "Introduction to Structural Engineering" held under National Mission on Education through ICT (MHRO)	IIT Kharagphur	02.10.2015
7	Mr C G Sivakumar	Workshop on "Spatial Visualization"	PSG CARE , PSG CT, Coimbatore	04.12.2015

S.No.	Name of faculty	Programme	Organizer	Period
8	Ms A Thilagam	Half day seminar on "Stage on Stage to Guide on the Side"	Women Development Committee of CIICP, PSG CT, Coimbatore	12.12.2015
9	Mr S Praveenkumar	Workshop on "Creative Teaching Series Bloom's Taxonomy"	PSG CARE , PSG CT, Coimbatore	19.12.2015
10	Dr K Elangovan Mr A Rajkumar Mr T Ramesh Ms S Sharmila Mr S Praveenkumar	Programme on "User Awareness Session"	Dept. of Biotechnology PSG CT, Coimbatore	17.12.2015
11	Dr M Ibrahim Bathusha Mr M Manivannan Ms S Sharmila Mr S Praveenkumar Mr K Prabhakaran	Two week ISTE STTP on "Introduction to Structural Engineering"	Indian Institute of Technology, Kharagpur	30.11.2015- 09.01.2016
12	Ms V Vanathi	TEQIP Phase II sponsored course on "Foundation Skills in Integrated Product Development (FSIPD)	PSG CT, Coimbatore	19.01.2016- 23.01.2016

2.3. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr. K.Elangovan	Guest lecture	Natural disaster mitigation and management	Kongu Engineering College of Engineering, Erode	19.12.2015
		Motivation lecture	NSS camp at Mallegoundamapalayam		25.12.2015
		Guest lecture	Disaster Mitigation and Management organized by CAP and Nature club	PSG CT, Coimbatore	30.12.2015
		National conference on "Innovations in materials, echanics and processes for sustainable development	Rocks and Monuments	Coimbatore Institute of Technology, Coimbatore	20.4.2016
		AICTE QIP	Latest Technologies and Challenges in Transportation Engineering		29.04.2016
		ISRO sponsored Training Programme	GIS on 30.04.2016	Nandha College of Engineering, Erode	30.4.2016

2.4. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr G Sankara subramanian	Member, Board of studies in civil Engineering	Pondicherry Engineering College, Pondicherry
		Member, Board of Examiners	Government College of Technology Coimbatore
		Member, Board of Studies in Civil Engineering	Dr Mahalingam College of Engg & Technology, Pollachi
		Member, Board of Studies in Civil Engineering	SNS College of Technology, Coimbatore
		Member, Staff Selection Committee	Sakthi Institute of Technology, Coimbatore
		Member, Purchase Committee	Coimbatore Institute of Technology, Coimbatore
2	Dr.M.Palanikumar	Executive Member	Indian Geotechnical Society (IGS) Coimbatore Local Chapter.
3	Dr.M.Ibrahim bathusha	Honorary Secretary	The Institution of Engineers (India) Coimbatore Local Centre Coimbatore
4	Dr.K.Elangovan	Expert committee member	Anna University PhD centre recognition to Sethu Institute of Technology, Virudhunagar

2.5. Award Won by Faculty

S.No.	Name of faculty	Name of the Award	Award by	Date
1	Dr. K.Elangovan, Associate Professor	Best Emerging Researcher Award Coimbatore Region 2015-2016 in the field of Civil Engineering Award	Sri Eshwar College of Engineering, Coimbatore	22.01.2016

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Materials Testing Laboratory	Aim 458 Los Angles Abrasion Testing Machine with Counter	1.62
2		Energy Efficient Evaporative Cooling Tower	0.58

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1	Seismic Microzonation of Coimbatore Corporation	Dr K Elangovan	AICTE (RPS) New Delhi	2013 – 2016 In progress	3 years	16.50

3.2.1. Sponsored research – Abstract

Seismic microzonation of Coimbatore Corporation

Coimbatore city, as per IS 1893-2002 has come under seismic Zone III. The National Disaster Management Authority of Government of India has classified 35 cities in India as seismic prone and Coimbatore is one among them. The city has a population of 16 lakhs and it is the second largest city providing revenue to the state Government. Coimbatore is the Manchester of south India, also a hub for automobiles, pumps, foundry industries, IT industry etc., Microzonation attempts to sub divide the Zone III into different zones by considering soil, rock, water table, landuse, land cover and their behavior to seismic waves. As the survey is in progress the electrical resistivity and the seismic survey equipments were purchased.

Seismic microzonation map of Coimbatore Corporation will be created. Site specific “g” value will be arrived to adopt economic design of structures. Area of risk (High, moderate and low) in terms of seismicity will be demarcated. Danger to life and property will be reduced if the result to be arrived from the current project is implemented in the field. Faults available in the region will be demarcated. General public will feel comfortable after they come to know the seismicity potential of this region, which will be ascertained from the current study. This facility will be used by PG and doctoral students.

3.3. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Ms N Srimathi	Urban planning for Coimbatore city using GIS	Dr K Elangovan Associate Professor PSG CT Coimbatore	2010 In progress
2	Mr V Sathish Kumar	Transportation Planning Using GIS		2010 In progress
3	Ms S Shanthi	Landslide Hazard Zonation of parts of Nilgiris Region Using Remote Sensing an GIS		2010 In progress
4	Mr N Vetrivel	Groundwater Flow Modeling of Parts of Cauvery River Basin		2010 In progress
5	Ms R Rani	Irrigation Performance Analysis of Parambikulam Aliyar Project using GIS and Remote Sensing		2010 In progress
6	Mr S Kapilan	Route Optimization and Site Selection for Solid Waste Disposal for Coimbatore Corporation Using GIS, GPS and Soft Computing Tools		2011 In progress
7	Mr Y Shantharam	Water Quality Modeling of Coimbatore city		2011 In progress
8	Mr S Loganathan	Highway Alignment Between Perundurai and Palani Corridor Using GIS and Soft Computing Tools		2012 In progress
10	Mr Krishnaraaj	Simulation of Multiple Landuse Changes Using GIS and Soft Computing Tools		2012 In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
11	Mr Rajkumar	Urban Sprawl Analysis Using GIS and Multicriteria Techniques for Sustainable Development		2012 In progress
12	Mr Vishnuvardhan	Optimal Route Analysis for Solid Waste Transportation System Using GIS, ANN and Ant Colony Optimization		2012 In progress
13	Mr K E Viswanathan	Seismic Microzonation of Coimbatore Corporation		2013 In Progress
14	Ms M R Lavanya	Study on Properties and Environmental Effects of Concrete using waste Materials	Dr M Ibrahim Bathusha Associate Professor PSG CT, Coimbatore	2013 In Progress
15	Mr S Praveen kumar	Experimental Investigation of High-performance concepts using micro filler end concrete	Dr G Sankara subramanian Professor, PSG CT, Coimbatore	2014 In Progress
16	Mr T Ramesh	Influence of Admixture and Durability Performance of Concrete		2014 In Progress
17	Ms M Rajeswari	Seismic Performance assessment of Precast beam column connection	Dr K P Jaya Professor Anna University, Chennai	2015 In Progress

3.4. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR(lakhs)
1	Mr R Ragupathy Mr M Manivannan	SS Associates, Erode	Concrete Design Mix	0.67
2	Mr R Ragupathy Mr M Manivannan	Mayflower Enterprises Pvt Ltd., Coimbatore		0.34
3	Mr R Ragupathy Mr M Manivannan	CPWD, CCSD-II, CRPF CAMPUS, Coimbatore		0.22
4	Mr R Ragupathy Mr C G Sivakumar	RR Housing (India) Pvt Ltd., Coimbatore		0.67
5	Dr K Nalinaa	R Karunanidhe Construction (P) Ltd, Coimbatore		0.45
6	Ms A Thilagam	Rajadurai Construction Pvt Ltd., Coimbatore		0.22
7	Ms A Thilagam	TWAD Board Major Project, Coimbatore		0.22
8	Dr M Palanikumar	Rajadurai Construction Pvt Ltd., Coimbatore	0.33	
9	Dr M Palanikumar	Car-Mel Engg Company, Coimbatore.	0.30	

S.No.	Name of faculty	Industry	Title of work	Amount in INR(lakhs)
10	Dr M Palanikumar	Gandhi Polytechnic College, Sathyamangalam	Standard Penetration Cone test – Soil test	0.53
11	Dr M Palanikumar	Artika Cotton Mills, Erode		0.13
12	Dr P SenthilKumar	Viswanathan Constructions (P) Ltd., Coimbatore		0.13
13	Dr P SenthilKumar	Isha Homes (I) Pvt Ltd., Coimbatore		0.13
14	Dr P SenthilKumar	Ishan Foundation, Coimbatore		0.20
15	Dr M Palanikumar	TNPHC Ltd., Coimbatore		0.22
16	Dr M Palanikumar	Sierra ODA Pvt Ltd., Coimbatore		0.22
17	Dr M Palanikumar	Qualiance International (P) Ltd., Tirupur		0.23
18	Dr M Palanikumar	Risha Cables & Electricals (P) Ltd., Coimbatore		0.16
19	Dr P SenthilKumar Dr K Elangovan	KKR Promoters, Coimbatore		0.25
20	Dr P Senthil umar Dr K Elangovan	Vasantha Advanced System, Coimbatore		
21	Dr M Palanikumar	World Class Construction Company, Coimbatore		0.15
22	Dr P SenthilKumar Dr K Elangovan	Sasi Advertising Pvt Ltd., Coimbatore		0.22
23	Dr P SenthilKumar Dr K Elangovan	Sri Sasthaa Construction, Coimbatore		0.22
24	Dr P SenthilKumar Dr K Elangovan	Classic International Pvt Ltd., Coimbatore		0.12
25	Dr M Palanikumar	KCR Foundation, Coimbatore		0.13
26	Dr P Senthil umar	Mylon Metallic Pvt Ltd., Coimbatore		0.22
27	Dr M Palanikumar	SRG Apparels Pvt Ltd., Coimbatore		0.12
28	Dr M Palanikumar	JMS Target Solution, Coimbatore		0.12
29	Dr M Palanikumar	Dream Earth Prop (I) Pvt Ltd., Coimbatore	0.14	
30	Dr P SenthilKumar	URC Construction (P) Ltd., Erode	0.17	
31	Dr M Palanikumar	Leap Green Energy Pvt. Ltd., Coimbatore.	0.22	
32	Dr M Palanikumar	Thamara Housing Developers Pvt Ltd., Tirupur	0.22	
33	Dr M Palanikumar	Milky Mist Dairy Food P Ltd., Erode	0.22	
34	Dr M Palanikumar	Vishwasri Property India Pvt Ltd., Coimbatore	0.14	
35	Dr M Palanikumar	JANDIA Engg (P) Ltd., Coimbatore	0.27	
36	Dr P SenthilKumar	DBS Project, Coimbatore.	0.23	
37	Dr M Palanikumar	GMS Elegant Builders (I) Pvt Ltd., Erode	0.23	
38	Dr M Palanikumar	Vestas Wind Technology India Pvt Ltd., Chennai	0.22	
39	Dr M Palanikumar	KCR Foundation, Coimbatore	0.12	

S.No.	Name of faculty	Industry	Title of work	Amount in INR(lakhs)
40	Dr M Palanikumar	SAM Turbo Industry Pvt Ltd., Coimbatore		0.12
41	Dr P Senthilkumar	MASS Foundation India (P) Ltd., Coimbatore		0.14
42	Dr P Senthil kumar Dr K Elangovan	Anish Infrastructure (Cbe) Pvt. Ltd., Coimbatore		0.17
43	Dr M Palanikumar	IVA Infrastructure, Coimbatore		0.22
44	Dr P Senthil umar Dr K Elangovan	Srinivasan Associates Pvt Ltd., Coimbatore		0.22
45	Dr P SenthilKumar Mr T Ramesh	Flow Link Systems (P) Ltd., Coimbatore		0.22
46	Dr M Palanikumar	Town City Developers, Coimbatore		0.14
47	Dr M Palanikumar	SRD Promoters, Coimbatore		0.27

3.5. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	950	-	-	-	-	-
2	GRD Library – Civil Engineering	11,220	3,470	2,010	32	38	6

3.6. Board of Studies

S.No.	Date	Agenda	External experts
1	10.10.2015	Scheme and syllabi – 2015 Regulations UG Programmes	<p>1. Dr S Sukumar, Professor & Head, Department of Civil Engineering, Government College of Engineering, Salem</p> <p>2. Dr K Swaminathan, Professor of Civil Engineering, National Institute of Technology, Karnataka, Surathkal, Manglore – 575 025</p> <p>3. Dr S Kandasamy Professor of Civil Engineering Government College of Technology, Coimbatore</p> <p>Industry Experts:</p> <p>1. Dr G S Venkatasubramani M/s. S G Structural Engineers 53, M A Palanisamy Street, K K Pudur Saibaba Colony, Coimbatore</p> <p>2. Mr T K Arunkumar Managing Partner, M/s Creators, Architects & Engineers, Coimbatore</p> <p>Special invitee:</p> <p>1. Dr. S Rajasekaan Visiting Professor, Department of Civil Engg PSG College of Technology</p>
2	26.03.2016	Scheme and syllabi – 2015 Regulations UG Programmes	

S.No.	Date	Agenda	External experts
			2. Dr. L.S.Jayagopal, Managing Director, M/s Mithran Structures, Coimbatore

3.7. Research publications

3.7.1. Papers published in international journals

1. Arumugam K, Rajesh Kumar A, Elangovan K, Loganathan S and Ambiga D “ 2015, “Geochemical Process Controlling Groundwater Quality in Avinashi and Tirupur Region, Tamil Nadu, India”, *International Journal of Applied Environmental Sciences ISSN 0973-6077* Volume 10, Number 1 (2015), pp. 1-13
2. A. Geetha Selvarani, G. Maheswaran, K.Elangovan, 2015, “Identification Of Artificial Recharge Sites For Noyyal Watershed Using GIS And Fuzzy Logic”, *International Journal of Applied Engineering Research* , Volume 10, Number 4 , pp.11189-11208
3. Arumugam, K, Rajesh Kumar, A. and Elangovan, K, 2015, “Evolution of Hydrochemical Parameters and Quality Assessment of Groundwater in Tirupur Region, Tamil Nadu, India”, *International Journal of Environmental Research*, 9(3):1023-1036, Summer 2015
4. Srimathi N, V.Sathishkumar V and K.Elangovan, “ Land Suitability Analysis for Urban Planning using GIS for Coimbatore city”, *International Journal of Applied Engineering Research*, ISSN 0973-4562 Vol. 10 No.62 (2015)
5. Maheswaran G, Elangovan K and Geetha Selvarani A, “Seasonal variation of Groundwater Quality in Erode District”, Tamil Nadu, India, *Journal of Environmental Science and Engineering*, Vol. 56, No.3, pp.295-302, 2015
6. Shanthi S, Elangovan K and Subramanian S, 2015, “Impact of Rainfall on Landslides for Nilgiri District, Tamil Nadu”, India, *International Journal of Applied Engineering Research*, ISSN 0973-4562 Vol. 10 No.62 (2015).
7. Prabakaran K, Ashok Kumar and Shashi Kant Thakkar, "Comparison of eigensensitivity and ANN based methods in model updating of an eight-story building", *Earthquake Engineering and Engineering Vibration*, Vol.14, No.3, Pg. 453-464, September 2015, DOI:10.1007/s11803-015-0036-z
8. Rajeshkumar A, Arumugam, K, Ravichandran P and Elangovan K, “Assessment of physico-chemical parameters of groundwater in avinashi-tirupur region, Tamilnadu, India”, *International Journal of Applied Engineering Research*, ISSN 0973-4562 Vol. 10 No.93 (2015)
9. Maheswaran G, Geetha Selvarani A and Elangovan K, “Groundwater resource exploration in Salem district, Tamil Nadu using GIS and remote sensing” , *Journal of Earth Syst. Sci.* 125 , No. 2, March 2016, pp. 311-328

3.8. Visits abroad

3.8.1. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1	Atulya Gopaljee (12C204)	University of New South Wales	17.07.2015 – 24.11.2015	Final year UG project

4. STUDENT ACTIVITIES

4.1. Student strength

S.No.	Class	No. of students
1	BE Civil Engineering - I Year	57
2	BE Civil Engineering - II Year	76
3	BE Civil Engineering - III Year	72
4	BE Civil Engineering - IV Year	68

S.No.	Class	No. of students
5	M.E Structural Engineering – I Year	16
6	M.E Structural Engineering – II Year	16
7	M.E Infrastructure Engineering – I Year	16
8	M.E Infrastructure Engineering – II Year	18
9	M.E Structural Engineering (Part Time) – III Year	11

4.2. Association activity

S.No.	Topic/Activity	Chief guest & affiliation	No. of participants	Date
1	Alumni meet(1986-1990)	Dr.S.Parivallal, Chief scientist ,CSIR Structural Engineering research centre	50	31.07.2015
2	Guest lecture on Sustainable Infrastructure Path forward Future of Engineering Education	Mr.M.Arokiasamy Florida Atlantic University	70	10.08.2015
3	Intra departmental technical Events (Paper presentation, Lego masters,Build trix,Civi-Q,Primametry,Busty minds)	-	40	29.09.2015 30.09.2015 & 17.10.2015
4	Alumni Congress 2015 1.Lecture on "Reinforcement Dos and Don't's 2. Panel discussion on "Good concrete practices"	1.Mr Murugilanthendral 2.Jagadish sriram 3.Mr Karthick &Mr.Prakash, Alumni members	40	26.12.2015
5	Kriya 2016 (Inter collegiate Technical Events) Paper presentation, Metropolitaine,Lego Masters	-	40	12.02.2016 - 14.02.2016
6	Guest Lecture on "Understanding Dynamics applied to Engineering systems"	Dr.K.G. Bhatia Honorary Engineer-IISEE Japan Former President Indian Society of Earthquake technology	40	26.02.2016
7	Mock Interview (Aptitude test, Group Discussion, Personal interview(HR,Technical))	-	50	27.02.2016- 28.02.2016

4.3. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1	Paper presentation	20	10
2	Various technical events	40	20
3	Sports	20	-

4.4. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1	D Subramanian	12C127	Academic	Best outgoing student	Alumni award	13.05.2016
2	D Yudhistiran	14MC08	Academic	Best outgoing student	Alumini award	13.05.2016
3	S Sathya	14MK09	Academic	Best outgoing student	Alumini award	13.05.2016
4	G Abinaya	12C102	Academic	Best outgoing student	Tech day award	14.03.2016
5	B Nandhini	14MC06	Academic	Best outgoing student	Tech day award	14.03.2016
6	M K Harishbabu	14MK03	Academic	Best outgoing student	Tech day award	14.03.2016

4.5. Final year project work

4.5.1 UG project

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	12C111 12C115 12C121 12C133 12C225 13C432	Hariprasanth S Kapilan R Nandha Kumar S Rahul P Sahl Azeez Elangovan A	Ground Water Quality Assessment of Tiruppur Region	Dr K Elangovan	-
2	12C112 12C117 12C118 12C130 12C208 12C210 13C407	Harish Kannan V Karthikkumar S Karuppasamyandi D Vignesh B Dhineshkumar T Karthikeyan K N Vakil S	Planning Analysis and Design of an Apartment	Ms V Vanathi	-
3	12C120 12C126 12C212 12C230 13C402 13C403	Kiran Kanna R Shyam Sunder A Maniprabhu S Vimalendiran P Mohanraj S Naveen Kumar E	Water Quality Assessment of Kalingarayan Canal At Erode District, Tamilnadu	Dr M Ibrahim Bathusha	-
4	12C107 12C124 12C213 12C216 12C220 12C229	Chibi M Praveen R Mohan Prasaath S Narotham Doss K Praveen Kumar K Vasanthakumar G R	Design of a Green Hospital Building	Ms A Thilagam	-
5	12C101 12C205 12C206 12C209 12C217 12C219	Abdul Hug B Bala Murugan M Balaji N Haresh V Panjabhakeshan RM Prashanth Rajesh Lund	Durability Tests on Bagasse Ash Infused Cement Mortar	Mr S Praveen kumar	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
6	12C108	Christopher Franklin J	Design of Roof Truss for an Auditorium	Mr T Tamesh	-
	12C109	Ganeshprabhu M			
	12C113	Harsha Vardhanan S			
	12C116	Karthik N			
	12C131	Vijayakumar B			
	13C437	Suji R			
7	12C202	Abinesh S	Planning Analysis And Design of College Building	Mr A Rajkumar	-
	13C433	Jameer Basha A			
	13C434	Moorthi S			
	13C436	Socrates E			
	13C401	Manoj Kumar N	Study of Design of Amraiwadi Metrorail Station, Ahmedabad		
8	12C110	Gautham M	Analysis and Design of a Multi-Storied Hospital Building	Mr Surendranath Muller	-
	12C204	Atulya Gopaljee			
	12C221	Preethu Balaji S			
	12C224	Sabarish Lal A			
	12C226	Saran Kumar T			
	13C406	Srivignesh R			
	13C431	Bharath S			
9	12C114	Iswarya R	Analysis and Design of Multi-Storey Residential Building	Mr C G Sivakumar	-
	12C132	Vishnu Priya R			
	12C214	Mynawathi V			
	12C215	Nandhini N			
10	12C103	Abinaya R	Planning, Analysis and Design of Residential Green Building	Mr M Manivannan	-
	12C119	Keerthana D			
	12C125	Shweta Narayan	Analysis and Design of Residential Building		
	12C129	Tharani E			
	12C211	Keerthna S			
	12C227	Shubhashini M			
11	12C105	Anand Kumar K	Design of a Workshop Building with 40t Capacity for NTPL Project, Tamil Nadu at NLC Ltd Neyveli	Mr K Prabakaran	-
	12C134	Aravind S			
	12C207	Dharanidharan A V			
	12C222	Prithivi A			
	12C231	Zaid K M	Planning, Analysis and Design of a Four- Storeyed RC Commercial Building		
12	12C106	Bala Vignesh R	Stabization of Expansive Subgrade Soil Using Lime	Dr P SenthilKumar	-
	12C123	Niranjan R			
	12C127	Subramanian D	Design and Construction of A High-Rise, Long-Span		
	12C228	Sri Krishnan R			

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
			Building for Satellite Testing and Integration at ISRO Satellite Integration and Testing Establishment, Marathahalli, Bengaluru		
	12C203	Ajayshankar J	An Experimental Study of Particle and Interaction Effect on the Rheological Performance Parameters of the Crumb Rubber Modified Binders	Dr P Senthil Kumar	
13	12C102 12C223	Abinaya G Rathna Sankavi S	Planning and Designing of a Residential Building	Dr M Palanikumar	
	12C104 12C122 12C128	Alagammai V Naveena R Suhanya E	Planning, Analysis and Design of a Multi-Storeyed Residential Building		

4.5.2 PG project

4.5.2.1 Structural Engineering

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	14MC01	Arunvijay V S	Experimental and Analytical Investigations on the Behaviour of GFRP Wrapped RC Columns	Dr G Sankara subramanian	--
2	14MC02	Ganesh Kumar G	Determination of Optimal Design Parameters for Piled Raft Foundation	Dr M Palanikumar	
3	14MC03	Hafis Muhammed M K	Behaviour of Concrete Filled Double Skin Tubular columns	Ms S Sharmila	--
4	14MC04	Jeseema Nisrin J	Experimental Investigations on Geopolymer Concrete Cured at Ambient Temperature	Dr K Nalinaa	--
5	14MC05	Mohanapriya T	Analytical Study on Behaviour of a Composite Space Truss	Ms V Vanathi	--
6	14MC06	Nandhini B	Static and Dynamic Analysis of Functionally Graded Plates	Dr K Nalinaa	--

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
7	14MC07	Ranjithkumar D	Effect of Green Corrosion Inhibitors on Corrosion Behaviour of Reinforced Concrete	Mr T Ramesh	--
8	14MC08	Sai Sudhir B	A Study on The Seismic Response of RC Buildings With Lintel Bands	Dr J V Ramasamy	--
9	14MC09	Vinoth G	Investigation on Effect of Fibres on Mechanical Properties of Bagasse Ash Blended High Performance Concrete	Mr S Praveen kumar	-
10	14MC10	Vivekanandan R	Experimental and Analytical Investigation of Concrete Beam Reinforced With Hybrid Bars (Steel & GFRP)	Dr G Sankara subramanian	--
11	14MC11	Yudhistiran D	Seismic Response of (WF-FA) Brick Masonry Infilled RC Frames	Mr K Prabakaran	--
12	14MC31	Anand Raghav G	Experimental & Analytical Evaluation of Fiber Reinforced RCC Beams Strengthened By FRP Composites Sandwich Panels	Mr C G Sivakumar	--
13	14MC32	Ezhil T	A Study on Recycled Coarse Aggregate In Concrete	Dr P Senthil Kumar	--
14	14MC33	Ganesh Raja K	A Study on Properties of Foam Concrete Using Multi-Walled Carbon Nanotubes	Mr M Manivannan	--
15	14MC34	Karampudi Lakshmi Priya	Evaluation of Sugarcane Baggasse Ash as Supplementary Cementitious Material	Mr R Ragupathy	--
16	14MC35	Vegi Veera Venkata Anirudh	Blending of Concrete With GGBS and Fly Ash	Dr J V Ramasamy	--

4.5.2.2 Infrastructure Engineering

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	14MK01	Alpha Lukose	Characterization and Prevention of Pedestrian Accidents: Case Study Coimbatore City	Ms A Thilagam	--
2	14MK02	Anusiya G	Experimental Investigation on Effect of Bagasse Ash on	Mr S Praveen kumar	--

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
			Durability of High Performance Concrete		
3	14MK03	Harishbabu MK	Performance Evaluation of Labscale Constructed Wetland System Treating Domestic Grey Water	Mr A Rajkumar	--
4	14MK05	Maheswari J	Microbial Modified Bio-Engineered Concrete	Ms A Thilagam	--
5	14MK06	Raja Hilton P	Planning of Mass Rapid Transit System In Coimbatore Using Geographic Information System	Dr K Elangovan	--
6	14MK07	Rajapreetha R	Study on Performance of Frasel Lens for Thermal Efficiency & Microbial Education	Dr M Ibrahim Bathusha	--
7	14MK08	Sankara Narayanan P	Experimental Study on Roller Compacted Concrete Pavement	Dr M Palanikumar	--
8	14MK09	Sathya S	Experimental Study on Durability of Self Cured – Self Compacting Concrete	Dr K Nalinaa	--
9	14MK10	Sivabalan E	Urban Sprawl of Tiruchirappalli City Using GIS	Mr R Ragupathy	--
10	14MK11	Vendoti Vikas Reddy	Experimental Study on Hydraulic Properties of Composite Non-Woven Geotextiles Under Different Overburden Pressures	Dr P Senthil Kumar	--
11	14MK31	Bala Kumar M	A Study on Effects of Recycled Coarse Aggregates In Rigid Pavement	Dr P Senthil Kumar	--
12	14MK32	Gowtham M	Reliability Analysis and Performance Evaluation of Water Distribution System Using Epanet	Dr M Ibrahim Bathusha	--
13	14MK33	Karthikeyan S	Accident Spot Analysis and Emergency Planning for Coimbatore City Using GIS	Dr K Elangovan	--
14	14MK34	Mohamed Insaf Z	Planning of Bus Rapid Transit System for Coimbatore City Using GIS	Mr C G Sivakumar	--
15	14MK35	Nachammai PI	Evaluation of Safety Performance In Construction	Mr Surendranath Muller	--
16	14MK36	Rajkamal B	Parametric Study oon Analysis and Design of Cable Stayed Bridge	Ms S Sharmila	--

4.5.2.3 Structural Engineering (Part Time)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	13MC62	Esakki Durai S	Lateral Load Analysis of Cold Formed Lipped Channel Built Up Sections Infilled with Concrete	Mr A Rajkumar	--
2	13MC63	Jothilakshmi K	Studies on Beam Column Joint Under Quasi Static Loading	Ms S Sharmila	--
3	13MC64	Kamaraj V	Study on Seismic Behaviour of Reinforced Concrete Frame With Eccentric Steel Bracing	Mr M Manivannan	--
4	13MC65	Lidhuveniys KSS	An Experimental Study on Flexural Strength of Reinforced Concrete Beams With Replacement of Coarse Aggregate by 100% Recycled Aggregates	Mr M Manivannan	--
5	13MC66	Meganathan S	Experimental Investigation on Properties of Solid Blocks using Agricultural Waste	Mr S Praveen kumar	--
6	13MC67	Navaneethakrishnan A	Seismic Performance of Irregular Structure	Ms V Vanathi	--
7	13MC70	Sajeesh S	Behaviour of Shear Wall of Different Shapes Under Same Loading Conditions	Mr Surendranath Muller	--
8	13MC71	Saravana Kumar V	An Experimental and Analytical Study of Exterior Beam Column Joint With Enlarged Joint Area Under Quasi Static Load	Mr C G Sivakumar	--
9	13MC72	Sivakumar R	Experimental Investigation on Cold Formed Steel Sections With Corrugated Sheet as Web	Mr T Ramesh	--
10	13MC73	Thajudeen S N	Study on Seismic Behaviour of a Steel Frame With Different Bracing Arrangements	Mr C G Sivakumar	--
11	13MC74	Thilaks A	Experimental on Self Compacting Concrete with Flyash and Msand	Dr M Palanikumar	--
12	13MC75	Vinod P	Seismic Behaviour of RC Framed Buildings With Shear Thickening Fluid Viscous Pampers	Mr K Prabakaran	--

4.6. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1	GATE	12	12C127	Subramanian D
			12C128	Suhanya E
			12C125	Swetha Narayan
			12C131	S Aravind

4.7. Placement

4.7.1. UG: BE Civil Engineering

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Accenture, Bangalore	11	12C102	G Abinaya	3.40
			12C103	R Abinaya	3.40
			12C106	R Bala Vignesh	3.40
			12C112	V Harish Kannan	3.40
			12C119	D Keerthana	3.40
			12C122	R Naveena	3.40
			12C124	R Praveen	3.40
			12C126	A Shyam Sunder	3.40
			12C211	S Keerthna	3.40
			12C212	S Maniprabhu	3.40
2	Cognizant, Chennai	3	12C117	S Karthikkumar	3.35
			12C133	P Rahul	3.35
			12C217	K Narotha Kumar	3.35
3	Larsen & Toubro Ltd., (ECC Division) Chennai	9	12C105	K Anand Kumar	5.11
			12C120	R Kiran Kanna	5.11
			12C123	R Niranjan	5.11
			12C127	D Subramanian	5.11
			12C207	A V Dharanidharan	5.11
			12C210	K N Karthikeyan	5.11
			12C222	A Prithivi	5.11
			12C228	R Srikrishnan	5.11
4	Infosys Technologies Ltd., Bangalore	1	12C121	S Nandha Kumar	3.25
			12C203	J Ajay Kumar	3.50
5	Shapoorji Pallonji and Company Pvt. Ltd., Mumbai	3	12C206	R. Gautham N Balaji	3.50
			12C229	G R Vasantha Kumar	3.50
			13C402	S Mohanraj	3.30
6	Tata Consultancy Services Limited, Chennai	1	13C402	S Mohanraj	3.30

4.7.2. PG: ME Structural Engineering

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	L&T Infrastructure Engineering Ltd, Chennai	2	14MC01	Arun Vijay V S	4.5
			14MC06	Nandhini B	4.5
2	Larsen & Toubro Ltd., (ECC Division) Chennai	2	14MC08	Sai Sudhir B	5.13
			14MC09	Vinoth G	5.13

4.7.3. PG: ME Infrastructure Engineering

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Cognizant, Chennai	1	14MK01	Alpha Lukose	3.35
2	Infosys Technologies Ltd., Bangalore	2	14MK03	M K Harish Babu	3.50
			14MK11	Vendoti Vikas Reddy	3.50

4.8. Industrial training and project

4.8.1 Short term training

S.No.	Name of company	No. of students & course	Period	Area of training
1	Shree Mahalakshmi Constructions, Coimbatore	2 (UG)	01.06.2015 – 14.06.2015	Design, layout and field work execution of constructions
2	P G Eappen Construction Pvt Ltd, Goal Ghar, Port Blair, Andaman	1(UG)	01.06.2015 – 14.06.2015	
3	Niketa Constructions, Coimbatore	4 (UG)	01.06.2015 – 14.06.2015	
4	Southern Railway, Constructions Branch Tenkasi	1 (UG)	01.06.2015 – 14.06.2015	
5	Jayanthi Promoters, Trichy	2 (UG)	01.06.2015 – 14.06.2015	
6	TRC Engineering (I) Pvt Ltd, Bangalore	1 (UG)	01.06.2015 – 14.06.2015	
7	Royal Constructions, Salem	3 (UG)	01.06.2015 – 14.06.2015	
8	Larsen & Toubro Limited, Chennai	2 (UG)	01.06.2015 – 14.06.2015	
9	Builtech Constructions Palakad, Vetri Constructions, Coimbatore	1 (UG)	01.06.2015 – 14.06.2015	
10	Andaman Lakshadweep Harbor Works, APWD, Andaman	1 (UG)	01.06.2015 – 14.06.2015	
11	Arwin Infra'den (Structural Consultancy), Madurai	1 (UG)	01.06.2015 – 14.06.2015	
12	Sri Dharma Constructions, Trichy	1 (UG)	01.06.2015 – 14.06.2015	
13	Southern Railway, Construction Gauge, Trichy	8 (UG)	01.06.2015 – 14.06.2015	

S.No.	Name of company	No. of students & course	Period	Area of training
14	Construction Consultant R Ramasamy, Karur	8(UG)	01.06.2015 – 14.06.2015	Design, layout and field work execution of constructions
15	VNV Builders, Erode	8 (UG)	01.06.2015 – 14.06.2015	
16	Sri Venkateswara Builders, Nagpur	4 (UG)	01.06.2015 – 14.06.2015	
17	GMS Elegant Builders, Erode	7 (UG)	01.06.2015 – 14.06.2015	
18	Larsen & Toubro Ltd Project: Pondicherry, Jipmer Campus	7 (UG)	01.06.2015 – 14.06.2015	
19	Velumani Water Infrastructure Pvt Ltd Mettupalayam	2 (UG)	01.06.2015 – 14.06.2015	
20	R Thangavelu Engineers and Builders, Coimbatore	5 (UG)	01.06.2015 – 14.06.2015	
21	PWD-WRO, Middle Pennaiyar Basin Division, Thiruvannamalai	1 (UG)	01.06.2015 – 14.06.2015	
22	J J Construction (Project: Marthandam Steel Building)	1 (UG)	01.06.2015 – 14.06.2015	
23	Sundar Sundaram Architects Coimbatore	1 (UG)	01.06.2015 – 14.06.2015	
24	R K Construction Co., Tirunelveli	1 (UG)	01.06.2015 – 14.06.2015	
25	Sri Gomathi Sankar Constructions, Madurai	1 (UG)	01.06.2015 – 14.06.2015	

4.9. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	College / University
1	Anjana Raghavendra Kadni	M.E	IIT, Madras
2	V R Monikasri	M.E	Anna University, Chennai
3	P Ranjitha	M.E	Coimbatore Institute of Technology, Coimbatore
4	Sophia Immanuel	M.E	Karunya University, Coimbatore
5	R Divya	M.E	Anna University, Chennai
6	U Prasanna Rahini	M.E	Vedica Scholars Programme, New Delhi
7	R Dineshkumar	MBA	RICS School of Built Environment, Noida
8	V Kalyana Raman	M.E	Vellore Institute of Technology, Vellore
9	S Subash	M.E	PSG College of Technology, Coimbatore
10	Manoj D	MBA	IIM Kozhikode
11	Suhanya E	M Tech	L &T Built India Scholarship-NIT Trichy
12	Ajay sankar S	PhD	National University of Singapore

4.10. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG
1983	14	5	1995	30	17	2007	35	24
1984	35	6	1996	14	11	2008	34	42
1985	55	8	1997	11	17	2009	35	31
1986	57	9	1998	13	10	2010	35	42
1987	53	9	1999	17	23	2011	38	33
1988	56	12	2000	10	11	2012	64	35
1989	22	8	2001	17	22	2013	58	27
1990	21	17	2002	25	14	2014	64	30
1991	33	12	2003	35	15	2015	61	31
1992	25	18	2004	32	34	2016	66	38
1993	26	28	2005	30	25			
1994	21	21	2006	33	32			

5. SUMMARY

S. No.	Activity	No.	
1.	Sponsored research projects undertaken	1	
2.	Scholars pursuing doctoral research	17	
3.	Total no. of doctorates produced till date	35	
4.	Papers published in international journals	9	
5.	Number of students passed during 2015 - 2016	UG	66
		PG	38

**DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING**

ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering, with its dedicated body of well-qualified faculty, technical staff and students, is committed to be an international, multi-disciplinary center of excellence in the area of Computer science and Engineering through education and research. It has partnerships with other leading Academic Institutions, Government and Industrial sectors. The Mission of the department is to help the society by educating engineers with the ability to administer and manage real world problems with latest technologies.

The department has established centers of excellence on Open Source Systems, Service Oriented Architecture, Grid computing and Cloud computing, Big Data Analytics in collaboration with Cognizant, CORDYS and Yahoo software development India Pvt. Ltd. The Department has undertaken research projects sponsored by AICTE, UGC, DRDO, Yahoo Software Development India Pvt Ltd. in the areas of Distributed computing, Pervasive computing, Wireless sensor networks, Information retrieval, ICT and Grid computing. The department has signed MoUs with CORDYS, Yahoo Software Development India Pvt. Ltd., Xurmo Technologies and Nokia R&D.

The curriculum of the department addresses the practical needs of the present and future, through under-graduate, post-graduate and doctoral programs for young engineers and scientists and through short-term continuing education courses for both the young and the senior personnel. The department programmes lead to the award of the degrees of Ph.D. in Computer Science and Engineering (part time), Master of Engineering in Computer Science and Engineering, Master of Engineering in Software Engineering and Bachelor of Engineering in Computer Science and Engineering.

The department has a well equipped library with 2000 books in various disciplines of Computer Science and Engineering like programming, operating systems, database management systems, software engineering, system software, computer graphics and computer hardware.

The major areas of research in the department include Open source systems, Grid computing, Neural networks, Parallel computing, Genetic algorithms, Image processing, Control systems, Robotics, Fuzzy logic, Modeling and simulation, Computer communication networks, Distributed computing, Security, VLSI, Data mining, Intelligent information agents, Service Oriented Architecture, Cloud Computing and Bioinformatics.

Final year students of BE (CSE), ME (CSE) and ME (SE) undergo a full semester project work in the industries. Some students also complete their projects as trainees in multinational companies like Amazon, IBM, Intel, Microsoft, Novell, Cisco, Cognizant, Netapp, Juniper etc.

Six faculty members have submitted their thesis for PhD and more than 30 papers have been published by the department faculty in various national and international journals during the academic year.

1. FACULTY

S.No.	Name & designation with highest qualification	email-id	Year of joining	Areas of specialization
1.	Dr.R.Venkatesan, Ph.D Professor and Head	rve@cse.psgtech.ac.in	2000	Algorithms, Software Engineering and DBMS
2.	Dr.G.Sudha Sadasivam, Ph.D Professor	gss@cse.psgtech.ac.in	1999	Distributed Computing and Software Engineering
3.	Dr.G.R.Karpagam, Ph.D Professor	grkrm@cse.psgtech.ac.in	1997	SOA, Cloud computing and Semantic Web
4.	Mr.R.Engels, M.S Associate Professor	ren@cse.psgtech.ac.in	2011	Distributed Computing and Software Architecture
5.	Mr.R.Marx, M.S Associate Professor	rmx@cse.psgtech.ac.in	2012	Computational Intelligence
6.	Dr. S. Lovelyn Rose Associate Professor	slr@cse.psgtech.ac.in	2013	Data Structures, Data Mining and Data Analytics
7.	Dr.V.Santhi, Ph.D Associate Professor	vsr@cse.psgtech.ac.in	2008	Computer Networks and System Programming
8.	Dr. N. Arulanand Associate Professor	naa@cse.psgtech.ac.in	2014	Networking, Embedded Systems and Telecommunications
9.	Mr. P. Sampath Kumar Assistant Professor(SI.Grade)	psk@cse.psgtech.ac.in	2014	Machine Learning, OOAD, Object Oriented Programming and Software
10.	Ms.D.Indumathi, M.S Assistant Professor(SI.Grade)	ind@cse.psgtech.ac.in	1999	Design of Algorithms and Artificial Intelligence
11.	Ms.C.Kavitha, M.E Assistant Professor(SI.Grade)	ckk@cse.psgtech.ac.in	2002	Computer Architecture and Data Structures
12.	Ms.N.Gopika Rani, M.E Assistant Professor(SI.Grade)	ngr@cse.psgtech.ac.in	2008	Data structures and Distributed systems
13.	Ms .R. Shalini, M.E Assistant Professor(Sr.Grade)	sha@cse.psgtech.ac.in	2005	Cloud Computing, Big Data Analytics and Machine Learning
14.	Mr.A.C.Ramesh, M.E Assistant Professor(Sr.Grade)	acr@cse.psgtech.ac.in	2006	Digital Image Processing and Artificial Neural
15.	Mr.B.Vinoth Kumar, M.E Assistant Professor(Sr.Grade)	bvk@cse.psgtech.ac.in	2004	Digital And Analog Circuits and Computer Hardware
16.	Ms.S.Vijayalakshmi, M.E Assistant Professor(Sr.Grade)	svl@cse.psgtech.ac.in	2006	Network Security
17.	Ms.J.Uma Maheswari, M.E Assistant Professor(Sr.Grade)	uma@cse.psgtech.ac.in	2007	Compiler Design and Semantic Web
18.	Ms.S.Maheswari, M.E Assistant Professor(Sr.Grade)	mah@cse.psgtech.ac.in	2007	Computer Networks and Semantic Web
19.	Ms.K.Sathiya Priya, M.E Assistant Professor(Sr.Grade)	spk@cse.psgtech.ac.in	2009	Data Mining, Data Structures and Object Oriented Programming

S.No.	Name & designation with highest qualification	email-id	Year of joining	Areas of specialization
20.	Ms.T.Anusha, M.E Assistant Professor(Sr.Grade)	anu@cse.psgtech.ac.in	2009	Image Processing and Neural Networks
21.	Ms. K.G. Saranya M.E Assistant Professor(Sr.Grade)	kgs@cse.psgtech.ac.in	2010	Software Engineering and Grid Computing
22.	Ms.R. Thirumahal, M.E Assistant Professor (senior Grade)	trk1193@gmail.com	2016	Data mining and Advanced database management system
23.	Ms.J. Swathi M.E. Assistant Professor	jsw@cse.psgtech.ac.in	2011	Theory of Computing, Mobile Computing, Distributed Computing and Evolutionary Computing
24.	Ms. S. Christie Sajitha M. Tech	scs@cse.psgtech.ac.in	2013	Cloud Computing and Operating System
25.	Ms. S. Aishwarya M.E. Assistant Professor	sai@cse.psgtech.ac.in	2013	Data Mining, Software Engineering and Software Testing
26.	Mr. J. Prakash, M.E. Assistant Professor	jpk@cse.psgtech.ac.in	2014	Software Engineering, Software Testing & Quality Assurance, Software Requirements & Estimation and Software Architecture
27.	Ms. A. Bharathi, M.E. Assistant Professor	abi@cse.psgtech.ac.in	2014	Software Engineering, Data Intensive Computing, Data Analytics and Semantic Web Technology
28.	Ms. K. Vani, M.E. Assistant Professor	kvi@cse.psgtech.ac.in	2014	Data Mining and Data Analytics
29.	Ms.J.Bineeshia, M.E. Assistant Professor	bjs@cse.psgtech.ac.in	2015	Computer Vision, Evolutionary Computing Techniques, Database
30.	Ms.P.Raja Vadhana, M.E. Assistant Professor	prv@cse.psgtech.ac.in	2015	Artificial Intelligence, Service Oriented Architecture and Database
31.	Ms.S.Arul Jothi, M.E. Assistant Professor	saj@cse.psgtech.ac.in	2015	Wireless Sensor Networks, Mobile Ad Hoc Networks and Artificial Intelligence

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining and status
1.	Mr. R.Engels	Ph.D	2012, Ongoing
2.	Mr. R.Marx	Ph.D	2012, Ongoing
3.	Mr.P.SampathKumar	Ph.D	2015 , Ongoing
4.	Ms. D. Indumathi	Ph.D	2008, Ongoing

S.No.	Name of faculty	Programme	Year of joining and status
5.	Ms. C.Kavitha	Ph.D	2009, Ongoing
6.	Ms. N.Gopika Rani	Ph.D	2009, Ongoing
7.	Mr. B. Vinoth Kumar	Ph.D	2010, Ongoing
8.	Ms. S. Vijayalakshmi	Ph.D	2012, Ongoing
9.	Ms. J.Uma Maheswari	Ph.D	2009, Ongoing
10.	Ms. S. Maheswari	Ph.D	2009, Ongoing
11.	Ms. K. Sathiya Priya	Ph.D	2010, Ongoing
12.	Ms. K. G. Saranya	Ph.D	2011, Ongoing
13.	Ms.T.Anusha	Ph.D	2016, Ongoing

2.2. Conference / Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr. R. Venkatesan Dr. S. Lovelyn Rose Ms. S. Christie Sajitha	Parallel Programming-Basics	Calligo Technologies in consultaion with Intel, Bangalore	26.06.2015
2.	Dr.S.Lovelyn Rose Ms.A.Bharathi	One day workshop on "Data Analytics using R"	-	10.10.2015
3.	Dr.S.Lovelyn Rose	Seminar on "How to face interviews"	-	27.06.2015
4.	Dr.R.Venkatesan Dr.G.R.Karpagam Mr.Sampath Kumar Ms.Swathi J	Industry Institute Interaction for First Year students	-	20.7.2015 - 22.7.2015
5.	Dr. V. Santhi Mr. J . Prakash	One day Hands on workshop on Network Simulator	-	23.01. 2016
6.	Dr. N. Arul Anand Dr. V. Santhi	National conference on Data Intensive Computing	-	29.04.2016 - 30.04.2016
7.	Dr. R. Venkatesan Dr. V. Santhi Ms.S.Maheswari Ms.J.Swathi	TEQIP II Sponsored one week Faculty Development Proramme on "Computer Networks"	TEQIP, PSG College of Technology, Coimbatore.	23.05.2016 - 28.05.2016

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1.	Dr.N.Arulanand	Foundation Skills in Integrated Product Development [FSIPD]	Center for Faculty Development, Anna University, Chennai	23.11.2015 - 27.11.2015
2.	Dr.N.Arulanand	Embedded Software Testing – Safety & Security	LDRA, Bangalore	04.09.2015
3.	Dr.V.Santhi	ISTE programme on Technical Communication	IIT , Bombay	08.10.2015- 05.12.2015

S.No.	Name of faculty	Programme	Organizer	Period
4.	Mr.P. Sampath Kumar	Fundamentals of Data Analysis and Analytics	-	12.02.2016 - 13.02.2016
5.	Ms.S.Vijayalakshmi Ms.J.Uma Maheswari	Database Design and Programming with SQL	ORACLE Academy & PSGCT, Coimbatore	21.03.2016 - 25.03.2016
6.	Ms. S.Vijayalakshmi	Security - Threats and Vulnerability Assessment	Department of IT, PSGCT, Coimbatore	08.01.2016 - 09.01.2016
7.	Ms. S.Vijayalakshmi Ms.J.Uma Maheswari Ms. S. Aishwarya	Workshop on Data Analytics using R	Department of CSE, PSGCT, Coimbatore	10.10.2015
8.	Ms.J. Uma Maheswari	The art of Teaching Programming	PSG CARE, Coimbatore	09.04.2016
9.	Ms. C.Kavitha Ms. J.Swathi Ms.S.Christie Sajitha Ms.Vani K	One day workshop on Basics of Parallel Programming	Calligo Technologies & PSGCT, coimbatore	26.06.2015
10.	Ms. J.Swathi Ms.Vani K	Research Issues in Green Cloud Computing	NITK, Surathkal	18.06.2015 - 20.06.2015
11.	Ms. J.Swathi Ms.Vani K	Training Course on ISO 9001:2008 Internal Audit	PSGCT , Coimbatore	27.06.2015
12.	Ms. J.Swathi Ms. S. Christie Sajitha Ms.Vani K Ms.J.Bineeshia Ms.P.Raja Vadhana Ms.S.Arul Jothi	6th Indian School on Logic and its Applications	Association for Logic in India & PSGCT, Coimbatore	21.03.2016 - 26.03.2016
13.	Ms. S. Aishwarya Ms. A. Bharathi	Two day Workshop on Big data and cloud tools	Anna University, MIT Campus, chennai	31.07.2015 - 01.08.2015
14.	Mr.J.Prakash Ms. A. Bharathi	Spatial Visualization- space drawing perception	PSGCARE, Coimbatore	05.12.2015 - 23.01.2016
15.	Mr.J.Prakash Ms. A. Bharathi	Advanced level course on "Semantic Web"	NITK Surathkal	10.04.2016 - 15.04.2016
16.	Ms. S. Christie Sajitha Mr.J.Prakash	Android Application Development	PSGCT, Coimbatore	08.08.2015 - 09.08.2015
17.	Ms.J.Bineeshia Ms.P.Raja Vadhana Ms.S.Arul Jothi	Creative Teaching Series - Bloom's Taxonomy	PSGCARE, Coimbatore	19.12.2015
18.	Ms.J.Bineeshia Ms.S.Arul Jothi	TEQIP II sponsored FDP on Computer Networks	Department of CSE, PSGCT, Coimbatore	23.05.2016 - 28.05.2016
19.	Ms.R. Thirumahal Ms.S.Arul Jothi	Google Moodle	PSGCARE, Coimbatore	22.04.2016

2.4 Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Dr.G.Sudha Sadasivam	Recent Trends and Research challenges in Big Data Analytics	MapReduce – Case Studies	CIT, Coimbatore	04.02.2016

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
2.		Recent Trends in Machine Learning	Hadoop and Machine Learning	Krishnammal College for Women, Coimbatore	11.02.2016
3.		TEQIP II sponsored FDP on "Computer Networks"	Network Components	Dept. of CSE, PSGCT, Coimbatore	23.05.2016
4.	Dr.G.R.Karpagam	TEQIP II sponsored FDP on "Computer Networks"	Client/Server Communication and Security Issues in Computer Networks	Department of CSE, PSGCT, Coimbatore	23.05.2016 - 28.05.2016
5.	Mr. R.Engels	TEQIP II sponsored FDP on "Computer Networks"	HTTPS and Web Services troubleshooting & TCP and HTTP troubleshooting	Department of CSE, PSGCT, Coimbatore	27.05.2016 - 28.05.2016
6.		QIP Short Term Course on Recent Trends and Research Challenges in Big Data Analytics	Architecting Data Intensive Systems	Coimbatore Institute of Technology, Coimbatore	03.02.2016
7.		Programming and Data Structures - I	C Programming and pointers	Ramakrishna Engineering College, Coimbatore	05.12.2015
8.	Mr. Marx. R	Training programme on open source software	StarUML workshop	GRD College of Science, Coimbatore	27.10.2015
9.	Dr.S.Lovelyn Rose	Guest lecture	Importance of Algorithm Design Techniques	SNS College of Engineering, Coimbatore	05.03.2016
10.		Two day workshop on "Big Data Analytics"	Introduction to Data Analytics	Periyar University, Erode	04.03.2016
11.		Faculty Training	Analysis of algorithms	SNS College of Technology, Coimbatore	08.01.2016
12.		Guest Lecture	Data Mining - Introduction	Krishnammal College for Women, Coimbatore	18.12.2015
13.		Guest Lecture	Deadlocks	Sri Ramakrishna Institute of Technology, Coimbatore	11.09.2015
14.		Two days FDP on "Data Structures and	Divide and Conquer,	Sri Krishna College of	15.06.2015

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
		Analysis of Algorithms”	Greedy and Dynamic Programming	Technology, Coimbatore	
15.	Dr.V.Santhi	TEQIP II sponsored FDP on “Computer Networks”	Socket Programming, IP Addressing and Hands on Training in NS2	Department of CSE, PSGCT, Coimbatore	25.05.2016, 27.05.2016-28.05.2016
16.	Ms.S.Maheswari	TEQIP II sponsored FDP on “Computer Networks”	Performance Metrics and Hands on Training	Department of CSE, PSGCT, Coimbatore	27.05.2016
17.	Ms. A. Bharathi	DBT Sponsored Two Day National Workshop on Applied Statistics on Bio informatics using R	Data Analytics using R and Rattle	Bannari Amman Institute of Technology, Sathyamangalam	19.02.2016-20.02.2016

2.5. Faculty involvement in other activities

S.No.	Faculty	Activity / role	Organization
1.	Dr.R.Venkatesan	Board of studies member	1. Government College of Technology, Coimbatore 2.National Engineering College, Kovilpatti 3.Sri Sathya Sai Institute of Higher Learning, Prasanthinilayam 4.Bannari Amman Institute of Technology, Sathyamangalam
		Chairman	Inspection Committee for continuous affiliation, Anna University, Chennai
2.	Dr.G.Sudha Sadasivam	Board of studies member	1.Kumaraguru College of Technology, Coimbatore 2.Coimbatore Institute of Technology,Coimbatore
		ACM co-ordinator	ACM Chapter, PSGCT, Coimbatore
3.	Dr.G.R.Karpagam	Chairman	Anna University Affiliation Inspection
		Board of studies member	KSR College of Engineering, Trichengode
4.	Mr.R.Engels	QEEE local faculty	IIT, Mumbai
		Chair person for one of the paper presenting sessions of NCDIC 2016 national conference	Dept. of CSE, PSGCT, Coimbatore
		Chair person for one of the paper presenting sessions of REACH-IT 2016 national conference	Dept. of IT, PSGCT, Coimbatore

S.No.	Faculty	Activity / role	Organization
5.	Dr.N.Arulanand	CSI Member	Computer Society of India, Coimbatore chapter
		Board of studies member	Kongu Engineering College, Perundurai
6.	Dr.S.Lovelyn Rose	Anna University Representative, Board of studies	Kongu Engg. College, Perundurai
		Board of studies member	Govt. Arts College, Coimbatore
		President, Maths Alumni Association	Nirmala College for Women, Coimbatore

2.6 Award won by faculty

S. No.	Name of faculty	Nature of award	Awarded by	Date
1.	Dr.G.R.karpagam	Teacher of the Year 2015 award	PSG & Sons' Charitable Trust, Coimbatore	05.10.2015

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Qty	Amount in lakhs
1.	TEQIP II Sponsored Hardware Lab	Scientech 801c 30MHz Dual Trace	10	0.99
		Scientech 4061 2MHz Function Generator		
		Analog and Digital devices digital dual output	10	0.41
		Analog and Digital devices digital single output		
		Var tech v68Digital Multi meter with 3999 counts	10	0.13
		ARM 7 Embedded Trainer Kit	3	10.64
		8086 Microprocessor Trainer kit	20	
		8051 Microcontroller Trainer kit	5	
		Traffic light controller interface cards	2	
		Digital IC Tester	1	
		Analog IC Tester	1	
		8085 Microprocessor Trainer kit	10	
		PIC 16F877 Micro Controller Kit ARM 9 Micro Controller Kit	3	
		Controller Kit	1	
		Android Development Kit	1	
		ADC Interfacing Boards	5	
		Stepper Motor Interfacing Boards	2	
		DSP Starter Kit	5	
		DSP Trainer Kit	5	
		DAC Interfacing cards	5	
		Keyboard Interfacing Card	5	
		Display Interfacing Cards	5	
		Digital IC Trainer Kit	20	
		DC Motor Speed Control Interface card	2	

S.No.	Laboratory name	Equipment details	Qty	Amount in lakhs
2.	RPS Lab	AMD 8 core with Asus M597 4 GB DDR 3 1TB SEAGATE Rack Mountable & SMPS PCI EXP E Net Card	2 2 2	0.69

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement / status	Duration	Grant in INR (lakhs)
1.	Sustainable agriculture through crop disease resistance using bioinformatics for genomics on hybrid CPU-GPU clusters	Dr R. Venkatesan Dr. G. Sudha Sadasivam	UGC, New Delhi	2013/Ongoing	3 years	7.3
2.	Cloud based Dynamic Service Discovery for Emergency Management	Dr.R. Venkatesan Dr.G.R. Karpagam Ms. J. Uma Maheswari	RPS – AICTE, New Delhi	2013/Ongoing	3 Years	13.0
3.	The Green Cloud Project: Innovative Product Lifecycle Management Solutions through Energy-Efficient Cloud Computing for Small and Medium Enterprises	Dr.S.Neela krishnan Dr.G.R.Karpagam Dr.R.Venkatesan Dr.P.K.Rajesh	AICTE, New Delhi and Siemens, Bangalore	2013/Ongoing	3 years	100.0

3.2.1 Sponsored research activities – abstract

Sustainable agriculture through crop disease resistance using bioinformatics for genomics on hybrid CPU - GPU clusters

Sustainable agricultural production is an urgent issue in response to global climate change and population increase. Improvements in plant yield can be brought about by designing plants based on a molecular understanding of gene function. Plant genomics facilitates discovery and isolation of important genes and analyzes the functions that regulate yields and tolerance to environmental stress like pathogens, climate, water and soil. This research will aid in solving urgent problems in our society by developing disease resistant varieties of crops, reducing world hunger and poverty, and preserving the environment. Plant genome research applies genetics to improve breeding of crop plants. Genetic improvements in crop plants beyond current capabilities are needed to meet the

growing world demand not only for more food, but also for a greater diversity of food and higher-quality food.

The main objective of the project is to use bioinformatics for analyzing and inferring information from crop host genome and pathogen genome. For this, sequence analysis is to be carried out. The possible causes of resistance of a host for a particular pathogen are analysed using parallelized machine learning approaches on CPU+GPU clusters. Using this, the possible effect of similar pathogens on the same host and the effect of the pathogen on similar hosts can be predicted.

Cloud based dynamic service discovery for emergency management

To manage emergencies involving large amount of data and wide varieties of organizations, Cloud computing platform is used to provide on-demand, scalable and reliable services. Cloud computing could contribute to emergency management, since it could facilitate the sharing of information among private and government organizations. Web services are widely employed for building distributed cloud applications.

With the increase of Web services in the Internet, discovering the optimal service from a set of functionally equivalent services becomes an essential problem. Performance of web services may fluctuate due to the dynamic Internet environment. Therefore, an efficient mechanism is required to discover a service in a dynamic environment.

This work proposes a cloud based method for discovering the web services in a dynamic manner for emergency management in cloud. This system has a single social cloud intended for handling emergency situations. All the government and non - government organizations can use this public cloud for sharing information in times of emergency. All these service providers stock up their data in a social cloud. Cloud Ontology is formed based on the data provided by different organizations. The agents in the cloud namely (i) Query Processing Agent (ii) Searching Agent (SA), (iii) Updating Agent (UA), Monitoring Agent (MA) are used to discover the user required emergency services dynamically.

The Green Cloud Project: Innovative Product Lifecycle Management Solutions through Energy-Efficient Cloud Computing for Small and Medium Enterprises:

This proposal aims in adopting Cloud computing as a style of computing where massively scalable IT-enabled capabilities are delivered 'as a service' to customers using Internet technologies. This work will emphasize on The Green Cloud Project: Innovative Product Lifecycle Management Solutions for Energy-Efficient Cloud Computing intended for Small and Medium Enterprises Applications. Research project will also focus on energy efficient and cost effective resource management solution for large scale data centers and Cloud Infrastructures to provide the cloud services on demand with the required Quality of Service thereby promoting Green IT. The objective is to implement a Private PLM Cloud framework and create a test bed for cloud computing infrastructure model for SME's that endows the following

Reduced hardware cost: Reduce the investment and maintenance cost of processors, disks and storage, and communication links by providing a Cloud Infrastructure.

Reduced power consumption: Energy efficient solution with scalable and efficient algorithms to reduce power consumption

Optimal power-aware scheduling: An innovative and optimal scheduling solution with the objective to allocate resources on-demand and reduce power consumption. A multifaceted approach to lower energy consumption, stability and security

Promote GREEN IT and reduce E-waste in academic institutions and industries: The best test created for the cloud computing infrastructure will be shared with academic institutions industries

(Technological Framework and Toolkit) for configuring an Environmental Friendly Computing thereby promoting GREEN IT and reducing Electronic waste.

3.3 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
1.	Mr. P.Balakumar	Information security	Dr.R.Venkatesan, Professor and Head, CSE Department, PSG CT, Coimbatore -4	2007/ In Progress
2.	Mr. T.Sivakumar	Information security		2009/ In Progress
3.	Mr. J.Jayavel	Mobile communication		2009/ In Progress
4.	Ms.Akila Manisekaran	Mobile adhoc networks		2010/ In Progress
5.	Mr.V.Ilayaraja	Wireless networks		2010/ In progress
6.	Ms. T.Suchitra	Wireless Sensor networks		2014/ In Progress
7.	Ms. M. Karthiga	Wireless Sensor networks		2014/ In Progress
8.	Ms. D.Indumathi	Intelligent Searching	Dr.A.Chitra, Professor and Head, Dept. of MCA, PSG CT Coimbatore-4	2008/In Progress
9.	Mr.R.Engels	Knowledge representation and reasoning		2011/ In progress
10.	Mr.R.Marx	Cognitive science		2012/ In progress
11.	Ms. C.Kavitha	Semantic services in large scale distributed systems	Dr.G.Sudha Sadasivam, Professor, Department of CSE, PSG CT Coimbatore-4	2009/ In progress
12.	Ms. N. Gopika Rani	Large scale distributed systems		2010/ In progress
13.	Ms. R.Bhavani	Bioinformatics		2010/ In progress
14.	Ms. K. Sathiya Priya	Data mining		2010/ In progress
15.	Ms. S. Selvarani	Grid scheduling		2007/ In progress
16.	Ms. C. Ellammal	Networking		2008/ In progress
17.	Ms. K. Anithakumari	Grid computing		2011/ In progress
18.	Ms. K.G.Saranya	Personalisation		2011/ In progress
19.	Ms.J.Uma Maheswari	Semantic web service retrival	Dr.G.R.Karpagam, Professor, Department of CSE, PSGCT	2009/ In progress
20.	Ms. S.Maheswari	Semantic web service selection		2009/ In progress
21.	Ms.S.Vijayalakshmi	Security in cloud		2012/ In progress
22.	Ms.S.N.Dhanabagyam	Cloud Computing		2012/ In progress
23.	Mr. B. Vinoth Kumar	Image processing		2010/ In progress
24.	Ms. S. Bhama	Service oriented architecture		2010/ In progress

3.4. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	2355	-	-	-	-	-
2.	GRD Library	33358	1925	2645	9	49	-

3.5. Board of studies

S.No.	Date	Agenda	External experts
1	31.10.2015	<ul style="list-style-type: none"> It was recommended to use the terms in the Blooms taxonomy to frame the PEOs and POs. Critical review of scheme/syllabi of subjects for 2015 regulations of BE(CSE) programme. The committee recommended including "Mobile Systems Engineering" in the core and "Programming Paradigms" in the elective. The committee recommended the inclusion of "Information Security" and "XML and Web Technology" as professional electives. The committee recommended offering some electives with 2 hours of theory and 2 hours of Tutorial/Laboratory. The committee recommended the inclusion of pre-requisites for professional and open electives. The committee recommended 2 hours of tutorial for "Compiler Design" and the removal of tutorial for "Distributed Operating Systems" The committee approved the introduction of "Database Systems in Practice-Case Studies", "Design of database query compiler", "Software Product Development and Management" as 1 credit courses for 2012 and 2015 regulations of UG programme. The committee recommended the inclusion of "Network Components" and "System Administration" as 1 credit courses. The committee recommended the retention of "Engineering Graphics" for the BE CSE programme. 	<p>1.Dr. K. Kesavasamy, Head – Academic Interface Programme, TCS, Trivandrum</p> <p>2.Dr. P. Umamaheswari, Professor , Anna University Regional Office, Coimbatore (Anna University Nominee)</p> <p>3.Dr. L. Ganesan, Professor, AC College, Karaikudi</p> <p>4.Dr. A. Srinivas, Professor, PESIT, Bangalore</p> <p>5.Mr. V Karthikeyan, Senior Software Engineer, AKP Systems, Bangalore</p>

3.6. Research publications

3.6.1. Papers published in international journals

1. Akila I.S, Venkatesan R, (2016), "A Cognitive Multi-hop Clustering Approach for Wireless Sensor Networks", *Wireless Personal Communications*, Vol. 87, No.1, pp. 1 – 19, JATIT, Mar 2016, ISSN: 0929-6212, Online ISSN: 1572-834X, Springer-US. DOI 10.1007/s11277-016-3200-5
2. Sujithra T, Venkatesan R (2016), "Query Based Dynamic Clustering in Wireless Sensor Networks", *International Journal of Computer Applications*, Vol. 139, No. 5, April 2016, pp. 21 – 25, ISSN 0975-8887.
3. Sujithra T, Venkatesan R (2016), "Swift and Energy Efficient Big Data Gathering Approaches in Wireless Sensor Networks", *International Journal of Computer Applications*, Vol. 138, No. 10, March 2016, pp. 14 – 19, ISSN 0975-8887.
4. Sujithra T, Venkatesan R (2016), "Threshold Based Toward Energy Efficient Big Data Gathering in Wireless Sensor Network", *International Journal of Advanced Engineering Technology*, Vol. VII/Issue I/Jan.-March 2016/pp. 357 – 361, E-ISSN 0976-3945.
5. Sujithra T, Venkatesan R (2016), "Energy Efficient Mobile Element Data Gathering in Wireless Sensor Networks", *International Journal of Advanced Engineering Technology*, Vol. VII/Issue I/Jan.-March, 2016/pp. 687 – 692, E-ISSN 0976-3945.
6. Kumudha. P, Venkatesan .R, (2016), "Hybrid GSA – CSSA based Emotional ELMAN Neural Network Classifier for Software Defect Prediction", *International Journal of Applied Engineering Research*, Volume 11, Number 5, pp 3255-3270 ISSN 0973-4562.
7. Sivakumar T, Venkatesan R (2015), "A Novel Image Encryption using Calligraphy Based Scan Method and Random Number", *KSII Transactions on Internet and Information Systems*, Vol. 9, No. 6, June 2015, pp. 2317 – 2337, ISSN: 1976-7277
8. Sivakumar S, Venkatesan R(2015), " Meta-Heuristic approaches for minimizing error in localization of wireless sensor networks" , Vol. 66, No.1, pp. 330 – 339, *Applied Soft Computing, Elsevier*, Vol. 36, pp. 506 – 518, ISSN: 1568-4946.
9. Kumudha. P, Venkatesan. R, Radhika Engimuri, (2015), "Product Metrics Based Predictive Classification of Software Using RAR Mining and Naive Bayes Approach", *International Journal of Applied Engineering Research*, Volume 10, Number 7, pp. 17375-17391, Research India Publications, ISSN 0973-4562
10. G. Sudha Sadasivam, Mutyala Subrahmanyam, Dasaraju Himachalam, Bhanu Prasad Pinnamaneni, S. Maha Lakshme, "Corporate governance fraud detection from annual reports using big data analytics", *International Journal of Big Data Intelligence*, ISSN 2053-1389, Vol.3, No.1, 2016, pp 51-60
11. S Santhi, GS Sadasivam, "Design and development of compact monitoring system for disaster remote health centres", *Indian journal of medical microbiology*.
12. K Sathiyapriya, GS Sadasivam "An Evolutionary Approach using Transactional Impact Factor for Preserving Privacy of Quantitative Data", *Indian Journal of Science and Technology*.
13. GS Sadasivam, D Raghuram, N Gayathri, Efficiently Scheduling Hadoop Cluster in Cloud Environment Informatics and Communication Technologies for Societal Development, 95-102
14. G. R. Karpagam, Energy Consumption Models for Cloud Computing Environment, *International Journal of Applied Engineering Research*, ISSN 0973-4562 Volume 10, Number 24 (2015) pp 44162-44165, Research India Publications. <http://www.ripublication.com>
15. Engels Rajangam, Chitra Annamalai, "Graph Models for Knowledge Representation and Reasoning for Contemporary and Emerging Needs – A Survey", *International Journal of Information Technology and Computer Science(IJITCS)*, Vol.8, No.2, pp.14-22, 2016.
16. Janani Prema and Lovelyn Rose S, "Investigation of Dimensionality Reduction on Classification Accuracy", *International Advanced Research Journal in Science, Engineering and Technology*, pp.18-25, Vol. 2, Issue-9, Sept 2015.
17. Kavitha M, N.Arulanand, "A Hybrid Nelder-Mead Method For Biclustering Of Gene Expression Data", *International Journal of Technology Enhancements and Emerging Engineering Research*, ISSN 2347-4289, vol 4, Issue 2, pp. 21-26.
18. N. Gopika Rani, G.sudha sadhasivam, R.M.Suresh, "Comparative Analysis of Turbo and LDPC Codes for Reduced Storage and Retrieval of Data Reduced Storage and Retrieval of Data ", *WSEAS Transactions on Computers*, Volume 14, 2015, Art. #15, pp. 142-151 ISSN / E-ISSN: 1109-2750 / 2224-2880.
19. N. Gopika Rani, G.sudha sadhasivam, G.Vignesh, "A Novel Approach To Tornado Codes For Archival Storage System ", *International Journal of Applied Engineering Research*, ISSN 0973-4562, Volume 10, Number 15 (2015) pp 35167-35173.

20. Vinoth Kumar B & Karpagam GR, "Differential evolution versus genetic algorithm in optimizing the Quantization table for JPEG baseline algorithm", *International Journal of Advanced Intelligence Paradigms*, ISSN.1755-0386, vol.7, no.2, 2015, pp.111 - 135.
21. Vinoth Kumar B & Karpagam GR, "A Problem Approximation Surrogate Model (PASM) for fitness Approximation in optimizing the quantization table for the JPEG baseline algorithm", *Turkish Journal of Electrical Engineering and Computer Sciences*, ISSN.1300-0632, Accepted and Published Online, August 2015.
22. Vinoth Kumar B & Karpagam GR, "Knowledge based differential evolution approach to quantization table generation for the JPEG baseline algorithm", *International Journal of Advanced Intelligence Paradigms*, ISSN.1755-0386, vol.8, no.1, 2016, pp.20 - 41.
23. Vinoth Kumar B, Karpagam GR & Naresh SP,"A Literature Review on Quantization Table Design for the JPEGBaseline Algorithm", *International Journal of Engineering and Computer Science*, ISSN.2319-7242,Vol. 4, No. 10, 2015, pp.14686-14691.
24. S.N.Dhanabagyam, G.R.Karpagam, "A framework for Identity and Access Management In HealthCare Cloud", *International Journal of Applied Engineering Research*, ISSN 0973-4562 Volume 10, Number 13,2015,Research India Publications. <http://www.ripublication.com>.
25. Shalini R,"Data Cleaning And Assimilating On Uncertain Xml", *International Journal Of Applied Engineering Research*, 2015, ISSN: 1087-1090, Page No. 8307-8310.
26. J.Uma Maheswari, G.R.Karpagam, "Cloud Based Comprehensive Architecture (CBCA) for QoS Aware Semantic Web Service Discovery in Emergency Management System", *International Journal of Applied Engineering Research (IJAER)*, vol.10, No 23, 43763-43771.
27. S.Maheswari, Karpagam G.R," Enhancing Fuzzy Topsis for Web Service Selection", *Int. J. Computer Applications in Technology*,Inderscience Publisher (Annexure II),Vol. 51, Issue.4:Pages.344-351 , July 2015.
28. Sathiyapriya K & Sudha Sadasivam G, 2016, "An Evolutionary Approach using Transactional Impact Factor for Preserving Privacy of Quantitative Data", *Indian Journal of Science and Technology*, vol.9, no. 9, pp.1-9, March 2016.
29. Sathiyapriya K & Sudha Sadasivam G, 2016, "Differential Evolution Algorithm for Hiding Fuzzy Association Rules Using Mutual Information", *International Journal of Innovation in Scientific Research*, vol. 24, no. 2 , pp. 388-396.

3.6.2 Papers published in International Conference

1. Vinoth Kumar, B, Karpagam, GR & Naresh SP "Generation of JPEG Quantization Table using Real Coded QuantumGenetic Algorithm ", Proceedings of 5thIEEE *International Conference on Communication and Signal Processing*,(ICCS'16), pp.1401 - 1405, 2016.
2. G R Karpagam , D.Darling Jemima,Conceptual framework for semantic web service composition, ICRTIT in Anna university MIT campus 8.4.2016,IEEE,*Fifth International Conference On Recent Trends In Information Technology*,April 08 & 09, 2016.

3.6.3 Papers published in national Conference

1. Subhasri. S, Marx. R, "Multiple Document Summarization Using Optimized Differential Evolution Using Cauchy Distribution for Mutation", Proceedings of *National conference on Frontiers in Applied Sciences and Computer Technology* (FACT 2016), National Institute of Technology, Trichy, March2016.
2. Vinoth Kumar, B, Karpagam, GR & Naresh SP "Generation of JPEG Quantization Table using Real Coded Quantum Genetic Algorithm ", Proceedings of *5thIEEE International Conference on Communication and Signal Processing*,(ICCS'16), pp.1401 - 1405, 2016.
3. Aartheeswari J and Sudha Sadasivam G "Self destructive data system for protecting user data privacy in web services" *National Conference on Data Intensive Computing- 2016*
4. Gayathri C and Ramesh A.C Effective Social Voting Recommendation Systems and Evaluation, *National Conference on Data Intensive Computing- 2016*
5. Ezhiloviya Rajan and Gopika Rani N "High Availability in HDFS : Forming Distributed Cluster of NameNodes",*National Conference on Data Intensive Computing- 2016*
6. Kirupa Shankar K M and Venkatesan R "A hybrid image compression technique based on Improved quantization scheme",*National Conference on Data Intensive Computing- 2016*

7. S Lovelyn Rose and Nandhini M, Renuga Devi S "Fuzzy Rule Generation in Artificial Bee Colony Algorithm Based Associative Classification"*National Conference on Data Intensive Computing- 2016*
8. Anbuselvan R and Marx R" Web-based Share Market Sentimental Analysis using CATSeeker Algorithm",*National Conference on Data Intensive Computing- 2016*
9. Swaradh P and S Lovelyn," Rose Emotion Analysis on Tweets Using Improved Lexicon Features and SVM Classifier",*National Conference on Data Intensive Computing- 2016*
10. Sajini Ganesh and Engels R," Energy Efficient Security Implementation in Wireless Sensor Network",*National Conference on Data Intensive Computing- 2016*
11. Sanjeev Kumar J and S Lovelyn Rose," Sentiment Analysis in Tweets Using",*National Conference on Data Intensive Computing- 2016*
12. Sufna M A , Santhi V andK Vani ,"Internet traffic classification using machine learning",*National Conference on Data Intensive Computing- 2016*
13. Kaviya M and K Sathiya Priya ,"Hiding Sensitive Association Rules For Quantitative Data Using Quantitative Condensed Frequency",*National Conference on Data Intensive Computing- 2016*
14. Vallikkannu A N ,Sudha Sadasivam G ,Kavitha C," Parallel Algorithm for Inferring Topic Hierarchies using Nested Hierarchical Dirichlet Process",*National Conference on Data Intensive Computing- 2016*
15. Vignesh Rajkumar and Arulanand N ,"Reconstruction of neuronal network from Calcium Imaging Signal data using Random Forest",*National Conference on Data Intensive Computing- 2016*
16. Divya N and Anusha T ,"Brain Image Segmentation for Tumor Identification",*National Conference on Data Intensive Computing- 2016*
17. Praveen Kumar D and Venkatesan R ,"An optimized Web Service Composition Plan based on Clustering and Generic algorithm",*National Conference on Data Intensive Computing- 2016*
18. Maheswari N and Maheswari S ,"Case-Based Reasoning Retrieval using Multi-level Association Knowledge",*National Conference on Data Intensive Computing- 2016*
19. Sakkaravarthy Iyyappan K , A Chitra and Indumathi D," A Concept based clustering approach for Web Search Personalization",*National Conference on Data Intensive Computing- 2016*
20. Karpagam G R, J Prakash ,Gowthaman G ,"Privacy Preserving Data Publishing Using Slicing Technique",*National Conference on Data Intensive Computing- 2016*
21. Sampathkumar P and Aishwarya S, Siva K ,"Filtering Unwanted Messages From OSN User Walls And Blocking User",*National Conference on Data Intensive Computing- 2016*
22. P Sampath Kumar, S G Guru Prasad, Dhanya V,"ECG Analysis for finding Myocardial Infarction Using Machine Learning Approach",*National Conference on Data Intensive Computing- 2016*
23. Kavitha M and Arulanand N ,"Biclustering Of Gene Expression Data Based On Various Quality Measures Using Heuristic Optimization Methods",*National Conference on Data Intensive Computing- 2016*
24. Preethy R and G Sudha Sadasivam," Workload Scheduling Policy with Priority and Backfilling used in Private Cloud",*National Conference on Data Intensive Computing- 2016*
25. Suriya Deepan R and Engels R ,"Ranking Based Dynamic Updates And Filtering Of Location Aware Publish/Subscribe System",*National Conference on Data Intensive Computing- 2016*
26. Vivegapriya R and Vijayalakshmi S ,"Multifactor Authentication in banking",*National Conference on Data Intensive Computing- 2016*
27. Chandralekha M and Saranya K G ,"Location-Aware Web Service Recommendation Using Collaborative Filtering Technique ",*National Conference on Data Intensive Computing- 2016*
28. Ramprakash B and Santhi V," Dimensionality Reduction by Intrinsic Dimension Estimation Using Box counting method and Correlation dimension Method",*National Conference on Data Intensive Computing- 2016*
29. Swetha N G and G R Karpagam," Usability - A Design Based Approach",*National Conference on Data Intensive Computing- 2016*
30. Raveena T, Saranya P and R Marx," A Survey on Sentiment Anatomization of Twitter Data",*National Conference on Data Intensive Computing- 2016*
31. Roobini S, Arul Selvi S and G Sudha Sadasivam,"Cloud Based Encryption For Personal Health Record",*National Conference on Data Intensive Computing- 2016*.

4. STUDENT ACTIVITIES

4.1 Student strength

S.No.	Class	No. of students
1	BE (CSE)- G1 - I year	64
2	BE (CSE)- G2 - I Year	67
3	BE (CSE)- G1 – II Year	72
4	BE (CSE)- G2 - II Year	71
5	BE (CSE)- G1 - III Year	72
6	BE (CSE)- G2 - III Year	71
7	BE (CSE)- G1 - IV Year	75
8	BE (CSE)- G2 - IV Year	69
9	ME (CSE) - I Year	9
10	ME (CSE) – II Year	17
11	ME (DPT) CSE I Year	-
12	ME (DPT) CSE II Year	1
13	ME (DPT) CSE III Year	-
14	ME (SE) - I Year	5
15	ME (SE) - II Year	12

4.2 Association activities

S.No.	Topic	Chief guest and affiliation	No. of Participants	Date
1.	Basics of Parallel Programming - work shop	Calligo Technologies, Bangalore	40	26.05.2015
2.	How to face interviews for PG Students	Dr. G. Menaka, PSGCT, Coimbatore	60	27.06.2015
3.	How to face competitive exams	Mr. Gowtham, IRS, Government of India	80	16.03.2016
4.	Data Analytics	Mr. Shalin Varghese, Ugam Solutions, Coimbatore	250	29.03.2016
5.	Future trends in Information Technology	Mr. Nithish, Payoda Inc., Coimbatore	120	05.04.2016

4.3. Co-curricular and extra-curricular activities

S.No.	Nature of activity	No. of students	No. of awards
1	Extra –curricular activities	103	24

4.4. Awards won by students

S.No.	Name of student	Roll No	Nature of activity	Award	Awarded by	Date
1.	Kirupa Shankar K M	13MZ02	Tech Day 2016	Best Outgoing Student	PSG College of Technology	14.03.2016

S.No.	Name of student	Roll No	Nature of activity	Award	Awarded by	Date
2.	Darling Jemima D	13MZ31	Alumni Meet 2016	Best Outgoing Student	PSG College of Technology	29.02.2016
3.	R. Pranav	15MZ03	Tata crucible Campus quiz	III prize	TATA Consultancy Services	19.03.2016
4.	B. RamPrakash	15MZ04				
5.	Sneha S	13Z351	Techno thrones	I prize	PSG College of Technology	01.03.2015
			Decode de cipher	II prize	Coimbatore Institute of Technology	10.09.2015 11.09.2015
			Model Placementz	II prize		01.03.2015
6.	Shirley Jenifer Joseph	13Z348	Techno thrones	Ist prize	PSG CT	01.03.2015
7.	Ahalya G	13Z301	Decode de cipher	II prize		10.09.2015 11.09.2015
8.	Vanjinathan.S	14Z259	Robot Development	Overall Chanmpion Award	Caterpillar First Tech Challenge	02.04.2016
9.	A.Mahadevan	14Z324	Code Divulge	II prize	PSG CT	29.03.2016
			Code Valiance	II prize	PSG CT	29.03.2016
10.	Adarsh P	14Z302	Code Divulge	III prize	PSG CT	29.03.2016
11.	Naveen.M	14Z329	Code Valiance	III prize	PSG CT	29.03.2016
12.	Balaji Muthazhagan T	15Z312	Codechat	II prize	PSG CT	01.04.2016
13.	Jagadeeshwaran.V	15Z321	Smash the Bug	I prize	PSG CT	01.04.2016
14.	Adithya K	12Z202	Overall	Best outgoing student award	PSG CT	01.04.2016
15.	Rathega S	12Z242	Overall	Best outgoing student award		01.04.2016
16.	Sairam M	14Z240	Codeagon	II prize		29.03.2016
			Code Breakers	II prize	12.03.2016 13.03.2016	
			Algomaniac	II prize	12.03.2016 13.03.2016	
			Quriouz	I prize	29.03.2016	

S.No.	Name of student	Roll No	Nature of activity	Award	Awarded by	Date
17.	Visalei .M	14Z262	Code Spark	II prize	PSG CT	12.03.2016 13.03.2016
18.	Enitha.C	14Z311	Code Spark	II prize		12.03.2016 13.03.2016

4.5 Final year project work

4.5.1 UG project

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
1	12Z212	Dakshin Jawahar	Porting meon cloud to windows and interfacing withg amazon cloud watch	Mr. AC. Ramesh	Inswit Software Pvt Ltd, chennai
2.	12Z240	Raghul Prasanth E	Monitoring application	Mr. AC. Ramesh	Netapp, Bangalore
3.	12Z216	Hari Haran	Predicting cab booking	Mr. AC. Ramesh	-
4.	13Z431	Dharshanraj			
5.	13Z437	Santhip Kumar			
6.	13Z438	Sekaran			
7.	13Z439	Syed Sameer			
8.	12Z221	Keerthana	Evaluation of neural models applied to the estimation of tool wear	Dr.GR.Karpagam	SAIL, Coimbatore
9.	12Z235	Preethi Saroj			
10.	13Z436	Priyadharshini R			
11.	12Z238	Priya Dharshini B	Analysis of clustering algorithms	Dr.GR.Karpagam	Cisco Systems, Baangalore
12.	12Z255	Supriya Shri P			
13.	12Z264	Vinithra S	Customer report creation for password management solution	Dr.GR.Karpagam	Zoho Corp, Chennai
14.	12Z220	Kannan T	Supply chain optimization using Generic algorithms	Dr.R.Venkatesan	Oracle India Pvt. Ltd., Chennai
15.	12Z202	Adithya K	Notifications personalisation	Dr.R.Venkatesan	Myntra, Bangalore
16.	12Z257	Surya B	Android display automation framework	Dr.R.Venkatesan	Intel Technology, Bangalore
17.	12Z223	Kiruba V	Enhanced android sync framework debugger	Ms.D.Indumathi	Samsung R&D Institute, Bangalore
18.	12Z233	Pooja Sree	Electronic document delivery through payment gateway	Ms.D.Indumathi	I2Software Tech Solutions, Coimbatore
19.	12Z248	Shabhana Rajathi	Aparcium increasing efficiency of ocr	Ms.D.Indumathi	Ebay Inc., Bangalore

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
			recognition for ebay motors		
20.	12Z224	Kiruthika Shruthi	Internal web development for wealth manager	Dr.V.Sanathi	Temenos India
21.	12Z228	Nandhini S	Web service connector for sentinel	Dr.V.Sanathi	Novell Software Developmentc hennai
22.	12Z230	Nehaa V	Asset tracking system	Dr.V.Sanathi	Wintechnologies, Coimbatore
23.	13Z435	Lavanya	Biometric human authentication security system using RFID and iris recognition	Dr.V.Sanathi	SAIL, Coimbatore
24.	12Z205	Arul Priya S	Video steganography	Dr.S.Lovelyn Rose	SAIL, Coimbatore
25.	12Z232	Pavithra			
26.	12Z236	Premika			
27.	12Z226	Mithra Devi P S	Wem dashboard	Dr.S.Lovelyn Rose	Cisco Systems Pvt Ltd, Bangalore
28.	12Z231	Nijitha S	Scim 2.0 with edirectory	Dr.S.Lovelyn Rose	Novell Software Development Pvt Ltd, Chennai
29.	12Z237	Prinitha Nagarajan	Asset management	Dr.S.Lovelyn Rose	Wells Fargo, chennai
30.	12Z247	Sethurama R	Application for scanning text and edge detection	Ms.N.Gopika Rani	Zoho Corporation, Chennai
31.	12Z254	Sunil Kumar P	Distributed messaging system for cloud based help desk application	Ms.N.Gopika Rani	
32.	12Z263	Vikram	Intelligent human centric E commerce industry twitter analytics	Ms.N.Gopika Rani	Paypal India Pvt. Ltd., Bangalore
33.	12Z227	Mounica U D	Transfer of incremental data using ETL technique	Mr.R.Engels	Intel Security, Bangalore
34.	12Z242	Rathega	Creating framework for fault analysis using logs	Mr.R.Engels	Cisco Systems India Private Limited, Bangalore
35.	12Z245	Saranya S	Biometric human authentication security system using RFID and iris recognition	Mr.R.Engels	SAIL, Coimbatore
36.	12Z213	Deepika Sree R	Common service centre	Ms.C.Kavitha	I2 Software Tech Solutions

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
					Pvt Ltd, Coimbatore
37.	12Z225	Mahalakshmi G	Enhancing asup miner functionalities	Ms.C.Kavitha	Netapp, Bangalore
38.	12Z204	Arthi K	Predictive analysis on email using dispatcher	Mr.R.Marx	Mckinsey Knowledge Centre, Chennai
39.	12Z208	Avanibajaj	Semi automated white blood cell counting	Mr.R.Marx	-
40.	12Z239	Priyanka	Employee payroll management analysis	Mr.R.Marx	SAIL, Coimbatore
41.	12Z261	Vaishnavi Ra			
42.	12Z201	Aadi Anand	Report generation and log analysis	Mr.P.Sampath Kumar	Wells Fargo, Chennai
43.	12Z206	Arun Prasath A R	Common service centre	Mr.P.Sampath Kumar	I2 Software Tech Solution, coimbatore
44.	12Z215	Hari Prasath S	In app notification framework	Mr.P.Sampath Kumar	Chargebee Technologies, Chennai
45.	12Z217	Harish R	Framework for microsd simulator	Mr.P.Sampath Kumar	Samsung R&D, Bangalore
46.	12Z210	Charvi Bansal	Alaska aries	Ms. K. Sathya Priya	Global Analytics, Chennai
47.	12Z219	Indhuja R	Biometric human authentication security system using RFID and iris recognition	Ms. K. Sathya Priya	SAIL, Coimbatore
48.	12Z229	Naveena	Implementation of streaser serve for utilities client	Ms. K. Sathya Priya	Deloitte Consulting India Pvt Ltd, Hyderabad
49.	12Z244	Sakthi	Internal intrusion detection and protection by using data mining and forensic techniques	Ms. K. Sathya Priya	-
50.	12Z259	Sushmitha			
51.	12Z260	Udhayakumari			
52.	13Z433	Gowri Sindhuja			
53.	13Z434	Indhu			
54.	12Z218	Harish Raghuraman	Date warehouse design and implementation of limits and collateral	Ms. J. Swathi	Oracle FiNancial Services

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
			module and integration in obp for multi dimensional exposure		Software Ltd, Chennai
55.	12Z241	Ramani R	We bal application testing in cloud environment	Ms. J. Swathi	Hospira, Chennai
56.	12Z251	Sri Mithune	Common service centre	Ms. J. Swathi	I2 Software Tech Solutions, Coimbatore
57.	12Z256	Surrya Narayanan	Image quality assesment and improvement	Ms. J. Swathi	-
58.	13Z441	Venkatesan			
59.	13Z442	Vignesh			
60.	13Z443	Sarath Kumar			
61.	12Z209	Sai Krishna Reddy	Diva unit level Testing	Ms.S.Vijaya Lakshmi	Intel, BaNGALORE
62.	12Z211	Chow Ashrita Munghkhung	Change detection by clustering of data using fuzzification	Ms.S.Vijaya Lakshmi	-
63.	12Z234	Prasath E			
64.	12Z258	Surya Prakash			
65.	13Z432	Gothandapani			
66.	13Z440	Venkatesh			
67.	12Z246	Sarbajit Roy	Dattus flash programmer	Ms.S.Vijaya Lakshmi	Dattus Private Ltd., Bangalore
68.	12Z249	Shyam Sundar R	Attribute extraction	Ms.S.Vijaya Lakshmi	Ugam Solutions, Coimbatore
69.	12Z250	Sindhu Priya R	Personal content manager contextual sorting	Mr.B.Vinoth Kumar	Intel Security, Bangalore
70.	12Z302	Ambica Gayathri T	Log management software	Dr.N.Arulanand	Augtra Technologies pvt Ltd., Coimbatore
71.	12Z306	Arun Kumar K			
72.	12Z340	Priyanka Balaji			
73.	12Z344	Sanjayadith M			
74.	12Z364	Yokesh M			
75.	12Z303	Amuthan P H	Safe HMI for warning and information using display content supervision	Ms.T.Anusha	Robert Bosch, Coimbatore
76.	12Z304	Anishkumar N	Variance commentary for Customer Dataset	Ms.C.Kavitha	Goldman Sachs, Bangalore

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
77.	12Z305	Anu Priya R	Internal Network for Temenos	Ms.S.Maheswari	Temenos India Pvt Ltd, Chennai
78.	12Z307	Asvanti R	Electronic document delivery through payment gateway	Dr.G.Sudha Sadhasivam	I2 Software tech solutions pvt ltd, Coimbatore
79.	12Z345	Sasi Rekha S			
80.	12Z308	Bala Harish Chander J	Gfx bench streamdit feature	Mr.B.Vinoth Kumar	Intel Technology, Bangalore
81.	12Z309	Balaji S	User behavior prediction using web usage mining	Mr.P.Sampath Kumar	-
82.	13Z470	Vijaya Krishna M			
83.	12Z343	Sakthi Murugan G			
84.	12Z355	Suresh M			
85.	12Z356	Thendral T			
86.	12Z310	Balakrishna S	Enterprise resource planning using SAP package technologies	Mr.R.Marx	Deloitte, Bangalore
87.	12Z311	Bhoomi Reddy Vishnu	Crime report management system	Dr.N.Arulanand	-
88.	12Z318	Harish S			
89.	12Z321	Jilla Saikiran			
90.	13Z465	Kumaresan A			
91.	12Z312	Christy Rajan	Magneto website creation	Mr.P.Sampath Kumar	Zuriel Homes, Bangalore
92.	12Z313	Dhilip Kumar V	Removal of applets for P6	Ms.T.Anusha	Oracle India Pvt Ltd, Chennai
93.	12Z314	Gaargeya Kishan S	Dataide	Mr.P.Sampath Kumar	Paypal, Chennai
94.	12Z315	Gnana Poorani K	Yarn commercialisation	Mr.R.Engels	NTC, Coimbatore
95.	12Z333	Naffeena M			
96.	12Z336	Nithya T			
97.	12Z316	Gokulraj G	Book my seat	Ms.K.G.Saranya	Infosys, Mysore
98.	12Z317	Hanna Mary Mathew	Digital Object Architecture with enhanced security	Mr.R.Engels	Intel Technology, Bangalore
99.	12Z319	Ishwaryalakshmi S	Performance optimisation in volvo instrument cluster	Mr.B.Vinoth Kumar	Robert Bosch, Coimbatore
100.	12Z360	Vidya K			
101.	12Z322	Judith Jeyafreeda Andrew	Automation for API services	Ms.N.Gopika Rani	Netapp, Bangalore
102.	12Z323	Kailash M	Alaska's resource for Integrated eligibility services	Mr.B.Vinoth Kumar	Deloitte, Bangalore

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
103.	12Z324	Kalaiarasi R	Continuous Integration on Embedded Device	Ms.S.Maheswari	Hospira, Chennai
104.	12Z325	Karthiga R	Automation(insurance fraud)	Ms.N.Gopika Rani	MuSigma, Bangalore
105.	12Z326	Kavya U	Cloud based framework for smart agriculture	Ms.S.Maheswari	Montbleu Technologies Pvt Ltd, Coimbatore
106.	12Z327	Keerthana R	Continuous delivery dashboard	Ms.D.Indumathi	Cisco systems, Bangalore
107.	12Z328	Kiran Raj M	Infrastructure data foundation(elastic search implementation)	Dr.N.Arulanand	Cisco, Bangalore
108.	12Z329	Kiran Kumar S	Artifact dependancy map generator	Mr.P.Sampath Kumar	OFSS, Mumbai
109.	12Z331	Logithavani	Web application development-POR	Dr.V.Santhi	Accolite, Bangalore
110.	12Z332	Megha Jose	Alert Notification transformation	Mr.R.Engels	Cisco systems, Bangalore
111.	12Z334	Narmatharagini G	Implementation of biometric scanning using fingerprint	Ms.T.Anusha	-
112.	12Z337	Nivethitha P			
113.	13Z463	Giriraj S			
114.	13Z466	Latha C			
115.	12Z335	Naveen R	Contact reason tracker	Dr.R.Venkatesan	Paypal, Chennai
116.	12Z338	Prabhu P	Sharing is caring	Ms.T.Anusha	Infosys, Mysore
117.	12Z339	Praveensankar M	Validation of user data and managing real time data	Dr.N.Arulanand	Accolite software India Pvt Ltd. Bangalore
118.	12Z341	Rashmita Deb	Applet removal from P6	Dr.V.Santhi	Oracle India Pvt Ltd, Bangalore
119.	12Z342	Sadhana G	Automation of storage task using WFA and service now integration	Ms.N.Gopika Rani	Netapp, Bangalore
120.	12Z346	Sasmithaa D	Developing test and features for pacman	Mr.R.Engels	Juniper networks, Bangalore
121.	12Z347	Satyajit Nath Bhowmik	Anomaly detection using unsupervised machine learning algorithm on Requested logs	Mr.R.Marx	eBay, Bangalore
122.	12Z348	Senthil R	Testing web and window based application using QTP	Dr.N.Arulanand	Wipro, Bangalore

S.No.	Roll No	Student Name	Title	Guide name	Industry / Institute associated
123.	12Z349	Sivasankar G	Class Diagram generator	Ms.T.Anusha	Infosys, Mysore
124.	12Z350	Soundharya Roja G	Hybrid recommender system guided by user profiles for the search in the news domain	Ms.K.G.Saranya	-
125.	12Z352	Sreeram P			
126.	13Z464	Kishore Kumar K			
127.	13Z467	Nandhini S			
128.	12Z351	Sreekrishna S	Virtual managed services	Dr.R.Venkatesan	Cisco, Bangalore
129.	12Z353	Sri Krishnamoorthi	Automated tool and dashboard for testing service tool	Mr.B.Vinoth Kumar	Netapp, Bangalore
130.	12Z354	Srigobicaa Kms	Test automation framework for flash enterprise storage	Dr.G.Sudha Sadasivam	Samsung R&D, Bangalore
131.	12Z357	Umaa Kaviya S	Automation of accounting software	Dr.G.Sudha Sadhasivam	Lantrasoft India pvt ltd, Coimbatore
132.	12Z358	Venkatesh Prasad	OCI Assessment Report Generation using WFA	Dr.R.Venkatesan	Netapp, Bangalore
133.	12Z359	Vidhyaprakash V	Alaska's resource for Integrated eligibility services	Dr.R.Venkatesan	Deloitte, Bangalore
134.	12Z361	Vignesh Chandrasekar	Fleet manager	Dr.N.Arulanand	Amazon, Bangalore
135.	12Z362	Vishal Shriram	Data collection tool	Mr.R.Marx	Mu Sigma, Bangalore
136.	12Z363	Vivekaju S	Mcafee Small Business Security	Ms.K.G.Saranya	McAfee Intel Security, Bangalore
137.	13Z461	Bose M	Common service centre	Ms.C.Kavitha	I2 Software tech solutions, Coimbatore

4.5.2 PG project

M.E. – Computer Science and Engineering

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
1	14MZ01	Ezhiloviya R	Achieving High Availability in Hadoop Distributed File System	Ms.N.Gopika Rani	-
2	14MZ02	Kirupa Shankar KM	PEERDB: A P2P Based Approach for Large Scale Data Processing Platform	Dr.R.Venkatesan	-
3	14MZ03	Naresh S P	Quantization Table Design	Mr.B.VinothKumar	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
			for the JPEG Baseline Algorithm		
4	14MZ04	Renugadevi S	Artificial Bee Colony Based Associative Classification	Dr.S.Lovelyn Rose	-
5	14MZ05	Sajini G	Energy Efficient Security Implementation In Wireless Sensor Networks	Mr.R.Engels	-
6	14MZ06	Sakkaravarthy Iyappan	Personalized Concept Based Clustering using Hybrid PSO Approach	Ms.D.Indumathi	-
7	14MZ07	Sanjeevkumar J	Sentiment Analysis in Tweets	Dr.S.Lovelyn Rose	-
8	14MZ08	Sufna M A	Internet Traffic Classification using Machine Learning	Dr.V.Sanathi Ms.K.Vani (Co-Guide)	-
9	14MZ09	Swaradh P	Detection of Spatially Influential Events Based on Emotions in Tweets	Dr.S.Lovelyn Rose	-
10	14MZ10	Vignesh Rajkumar	Reconstruction of Neuronal Network from Calcium Imaging Signal Data using Random Forest	Dr.N. Arul Anand	-
11	14MZ11	Vivegapriya R	Multifactor Authentication as a Service	Ms.S.Vijay Lakshmi	-
12	14MZ31	Darling Jemima D	Context Aware Semantic Web Service Composition	Dr.GR.Karpagam	-
13	14MZ32	Dharshikha S J	An Optimized Multi-Objective CPU Job Scheduling in Distributed Computing Systems using Firefly Algorithm	Dr.V.Sanathi	-
14	14MZ33	Divya N	MRI Brain Image Segmentation for Tumor Detection using Modified Region Growing and Hybrid ANN-PNN	Ms.T.Anusha	-
15	14MZ34	Kaviya M	Hiding Sensitive Rules for Quantitative Data using QRIF and QCCF	Ms.K.Sathiya Priya	-
16	14MZ35	Siva K	Filtering Unwanted Messages from Online Social Network User Walls	Mr.P.Sampath Kumar Ms.S.Aishwarya (Co-Guide)	-
17	14MZ81	Dhanya V	ECG Analysis for Finding Myocardial Infraction using Machine Learning Technique	Mr.P.Sampath Kumar	-

M.E. – Software Engineering

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
1	14MW01	J.Aartheeswari	Self destructive data system for protecting user data privacy in webservices	Dr.G.Sudha sadasivam	-
2	14MW02	R.Anbuselvan	Web based share market sentimental analysis	Mr.R.Marx	-
3	14MW03	C.Gayathri	Effective Social Voting Recommendation Systems and Evaluation	Mr.A.C.Ramesh	-
4	14MW04	G.Gowthaman	Slicing a new approach for privacy preserving data publishing	Dr .GR. Karpagam	-
5	14MW05	M.Kavitha	Biclustering of gene expression data based on various quality measures using heuristic optimization methods	Dr.N.ArulAnand	-
6	14MW06	N.Maheswari	Case-Based Reasoning Using Multilevel Association Knowledge	Mrs.S.Maheswari	-
7	14MW07	D.Praveen kumar	Composition plan for web services using genetic algorithm	Dr.R.Venkatesan	-
8	14MW08	R.Preethy	Parallel workload scheduling policy with trust in private cloud	Dr.G.Sudha sadasivam	-
9	14MW09	S.Subhasri	Multi-document summarization using optimized differential evolution	Mr.R.Marx	-
10	14MW10	R.Suriya deepan	Ranking based dynamic updates and filtering of location based publish/subscribe system	Mr.R.Engels	-
11	14MW11	AN.Vallikkannu	Parallel algorithm for inferring topic hierarchies using nested hierarchical dirichlet process	Mrs.C.Kavitha	-
12	14MW31	M.Chandraleka	Location-Aware and personalized collaborative filtering for web service recommendation	Mrs.K.G.Saranya	-

4.7. Competitive exams

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1	GATE	6	12Z301	Aarathi P
			12Z309	Balaji S
			12Z322	Judith Jeyafreeda Andrew
			12Z335	Naveen R
			12Z339	Praveensankar M

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
2	GRE	2	12Z353	Sri Krishnamoorthi S
			12Z323	Kailash M
			12Z358	Venkatesh Prasad S
3.	MAT	7	12Z326	Kavya U
			12Z340	Priyanka Balaji
			12Z362	Vishal Shriram
			12Z209	Bovilla Saikrishna Reddy
			12Z210	Charvi Bansal
			12Z212	Dakshin J
			12Z218	Harish Raghuraman

4.8. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	Wells Fargo, Bangalore	6	12Z201	Aadi Anand	5.5
			12Z237	Prinitha Nagarajan	5.5
			12Z239	Priyanga P	5.5
			12Z302	Ambica Gayathri T	5.5
			12Z340	Priyanka Balaji	5.5
			12Z353	Sri Krishnamoorthi S	5.5
			12Z202	Adithya K	19.5
2.	Myntra, Bangalore	1	12Z202	Adithya K	19.5
3.	Accenture, Bangalore	14	12Z203	Akshaya Narmadha M	3.3
			12z305	Arul Priya S	3.3
			12z306	Arun Prasath A R	3.3
			12Z219	Indhuja R	3.3
			12Z223	Kiruba V	3.3
			12Z233	Pooja Sree K	3.3
			12Z306	Arun Kumar K	3.3
			12Z307	Asvanti R	3.3
			12Z333	NaffeeNa M	3.3
			12Z334	Narmatharagini G	3.3
			12Z342	Sadhana G	3.3
			12Z344	Sanjay Adith M	3.3
12Z355	Suresh M	3.3			
12Z364	Yokesh M	3.3			
4.	Mckinsey Knowledge Center, Chennai	1	12Z204	Arthi K	8.5
5.	Global Analytics, Noida	1	12z308	Avani Bajaj	6.0
6.	TCS Digital Enterprises , Chennai	1	12Z209	Sai KrishNa Reddy B	6.5
7.	Deloitte, Bangalore	5	12Z210	Charvi Bansal	5.5
			12Z229	Naveena P	5.5
			12Z310	Balakrishna S	5.5
			12Z323	Kailash M	5.5

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
8.	Latent View, Chennai	4	122359	Vidhyaprakash V	5.5
			122212	Dakshin J	4.5
			122257	Surya B	4.5
			122258	Surya Prakash S	4.5
9.	Robert Bosch Engineering And Business Solutions Private Limited, Coimbatore	4	122309	Balaji S	4.5
			122214	Dipika R	4.0
			122303	Amuthan Ph	4.0
			122319	Ishwaryalakshmi S	4.0
10.	Chargebee Technologies, Chennai	1	122360	Vidya K	4.0
			122215	Hari Prasath S	5.4
11.	Cisco Systems, Bangalore	10	122217	Harish R	13.0
			122226	Mithra Devi P S	13.0
			122240	Raghul Prasanth E	13.0
			122242	Rathega S	13.0
			122255	Supriya Shri P	13.0
			122327	Keerthana R	13.0
			122328	Kiran Raj M	13.0
			122332	Megha Jose	13.0
12.	Oracle Financial Services Software Ltd, Bangalore	2	122351	Sreekrishna S	13.0
			122358	Venkatesh Prasad S	13.0
13.	Oracle India Pvt. Ltd., Bangalore	4	122218	Harish Raghuraman	6.0
			122329	Kiran Kumar S	6.0
			122220	Kannan T	7.5
			122238	Priyadharsini B	7.5
14.	Cognizant Technology Solutions, Chennai	2	122313	Dhilip Kumar V	7.5
			122341	Rashmita Deb	7.5
15.	Temenos ,Chennai	2	122222	Keerthanapriya	3.5
			122235	Preethi Saroj S	3.5
16.	Mahindra Comviva, Bangalore	2	122224	Kiruthika Shruthi A	7.5
			122305	Anu Priya R	7.5
17.	Intel Security, Bangalore	3	122225	Mahalakshmi G	6.0
			122308	Bala Harish Chander J	6.0
18.	Novell Software Development, Bangalore	2	122227	Mounica U D	8.7
			122250	Sindhupriya R	8.7
			122363	Vivekraju S	8.7
19.	Infoview Technology Solutions, Chennai	4	122228	Nandhini S	6.5
			122231	Nijitha S	7.4
20.	Ford Motors Pvt. Ltd., Chennai	2	122241	Ramani M	6.5
			122253	Suganyaa S P	6.5
			122315	Gnana Poorani K	6.5
			122345	Sasirekha S	6.5
20.	Ford Motors Pvt. Ltd., Chennai	2	122243	Rino Yashana V	5.5
			132461	Bose M	5.5

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
21.	Zoho corp, Chennai	2	122247	Sethurama R	4.6
			122264	Vinithra S	4.6
22.	Ebay Inc., Bangalore	2	122248	Shabhana Rajathi I	21.0
			122347	Satyajit Nath Bhowmik	21.0
23.	Ugam Solutions, Coimbatore	1	122249	Shyam Sundar R	4.5
24.	Fiorano, Bangalore	1	122252	S Suganya	6.75
25.	Amazon India, Chennai	1	122254	Sunil Kumar P	12
26.	Ntt Data Fa Insurance System , Bangalore	2	122259	Susmidha PI	4.0
			132433	Gowri Sindhuja R	4.0
27.	Paypal India Pvt. Ltd.,Chennai	3	122263	Vikram Karthikeyan	20.0
			122314	Gargeya Kishan S	20.0
			122335	Naveen R	20.0
28.	Goldman Sachs Services India	1	122304	Anishkumar N	11.0
29.	Musigma Inc, Bangalore	3	122312	Christy Rajan	3.5
			122325	Karthiga R	3.5
			122362	Vishal Shriram	3.5
30.	Infosys India Ltd, Bangalore	5	122316	Gokulraj G	3.5
			122317	Hanna Mary Mathew	3.5
			122337	Nivethitha P	3.5
			122338	Prabhu P	3.5
			122349	Sivasankar G	3.5
31.	Accolite Software India Pvt Ltd, Bangalore	2	122331	Loghithavani S	10.0
			122339	Praveensankar M	10.0
32.	Qualcomm India Pvt. Ltd , Bangalore	2	122346	Sasmithaa D	8.0
			122354	Srigobicaa Kms	8.0
33.	Wipro Technologies, Bangalore	1	122348	Senthil R	3.5
34.	Incture Technologies Pvt Ltd, Bangalore	1	132436	Priyadharshini R	4.2

ME – CSE

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	CGI Systems, Bangalore	2	14MZ02	Kirupa Shankar K M	2.8
			14MZ07	Sanjeev Kumar J	2.8
2.	OAT Systems, Bangalore	1	14MZ04	Renugadevi S	3.0
3.	Novell, Chennai	1	14MZ05	Sajini G	3.0
4.	Infosys, Mysore	3	14MZ10	Vignesh Rajkumar	3.0
			14MZ11	Vivegapriya R	3.0
			14MZ33	Divya N	3.0
5.	Caterpillar India, Chennai	1	14MZ31	Darling Jemima D	8.8
6.	Deloitte India, Hyderabad	1	14MZ32	Dharshikha S J	5.6
7.	Cognizant Technology Solutions, Chennai	2	14MZ01	Ezhiloviya R	3.5
			14MZ33	Kaviya M	3.5

ME – SE

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	OAT Systems, Bangalore	1	14MW07	D.Praveen kumar	6.5
2.	ZOHO Corporation, Chennai	1	14MW11	AN.Vallikkannu	4.6
3.	Cognizant Technology Solutions, chennai	3	14MW08	R.Preethy	3.5
			14MW06	N. Maheswari	3.5
			14MW05	M. Kavitha	3.5
4.	ARCESIUM India Pvt. Limited, Hyderabad	1	14MW09	S.Subhasri	13.5

4.9 Industrial training and project

4.9.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1.	365 Media, Coimbatore	16, I ME CSE & SE	27.11.2015	IT Sector
2.	LAPP India Private Ltd, Bangalore	33, III BE CSE G2	30.05.2016	Manufacturing, Production, Safety.
3.	HAL Corporation, Bangalore	51, III BE CSE G1	07.11.2015	Manufacturing
4.	Azuha Telematics, Bangalore	51, III BE CSE G1	06.11.2015	IT Sector

4.9.2 Project work / Internship

S.No.	Name of Company	No of students	Period
1.	Chargebee Technologies, Chennai	1	Even Semester for the year 2015 – 2016
2.	Cisco Systems, Bangalore	3	
3.	Dattus Private Limited, Bangalore	1	
4.	Deloitte Consulting India Pvt Ltd, Bangalore	2	
5.	Ebay Inc., Bangalore	1	
6.	Fiorano Software Technologies, Bangalore	1	
7.	Global Analytics, Noida	1	
8.	Hospira, Chennai	1	
9.	Inswit Software Pvt Ltd, Bangalore	1	
10.	Intel, Bangalore	4	
11.	Mckinsey Knowledge Centre, Chennai	1	
12.	Myntra, Bangalore	1	
13.	Netapp, Bangalore	2	
14.	Novell Software Development, Bangalore	1	
15.	NTC, Bangalore	1	
16.	Oracle FiNancial Services Software Ltd, Bangalore	3	
17.	Paypal India Pvt. Ltd, Chennai	1	
18.	Robert Bosch, Coimbatore	1	

S.No.	Name of Company	No of students	Period
19.	SAIL, Chennai	14	Even Semester for the year 2015 - 2016
20.	Samsung R&D, Bangalore	2	
21.	Temenos India, Chennai	1	
22.	Ugam Solutions, Coimbatore	1	
23.	Wells Fargo, chennai	1	
24.	Wintechnologies, Chennai	1	
25.	Zoho Corporation, Chennai	3	
26.	ARCESIUM India Pvt. Limited, Hyderabad	1	
27.	ZOHO Corporation Private Limited, chennai	1	
28.	OAT Systems, Bangalore	1	

4.10 PSG Tech students pursuing higher studies

S.No.	Roll No	Name	Degree pursuing	University
1.	10Z224	Nivedita D	MBA	PSG Institute of Management
2.	11Z206	Anbarasi M	MS	North Carolina State University
3.	11Z232	Nithyapriya G	ME	GCT Coimbatore
4.	11Z233	Niveetha R S	MBA	IIM, Indore
5.	11Z236	Pennada Sanjeev	MS	Texas A&M Kingsville
6.	11Z238	Praveen E M	MS	University of Texas, Dallas
7.	11Z246	Sandhiya Ramanathan	MS	Arizona State University
8.	11Z253	Soundarajan T	MS	The State University of New Jersey, New Brunswick
9.	11Z255	Subathra V	MS	Stony Brook University
10.	11Z257	Swathiha	ME	PSG College of Technology
11.	11Z263	Vishnu Varsini N	MBA	Kumaraguru Business School
12.	11Z356	S. Tharunn Kumar	Master of Info.Tech	University of New South Wales, Australia
13.	11Z347	Ravipatti Siddhartha	MS	Bradley university, US
14.	11Z342	R. Praarthana	MS	Clemson University, US
15.	11Z341	S. Ponni	ME	Kongu Engineering College, Erode
16.	11Z308	M. Dhivya	ME	SSN College of Engineering, Chennai
17.	11Z360	Victor Debberma	MBA	IIM, Ahmedabad
18.	11Z344	S. Premanand	MBA	Symbiosis institute of business Management, Pune

4.11 No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1988	24		1996	26	6	2004	141	14	2012	119	32
1989	18		1997	33	14	2005	127	43	2013	121	33
1990	20	5	1998	28	14	2006	131	16	2014	135	30
1991	29	11	1999	39	14	2007	126	19	2015	134	34
1992	29	6	2000	58	14	2008	130	17	2016	131	28
1993	26	8	2001	55	34	2009	134	30			
1994	25	18	2002	62	43	2010	132	35			
1995	26	24	2003	84	42	2011	129	36			

5. SUMMARY

S. No.	Activity	No.	
1.	National Conferences Conducted	01	
2.	Workshops conducted	02	
3.	Short-term training programs conducted	02	
4.	Sponsored research projects undertaken	03	
5.	Scholars pursuing doctoral research	26	
6.	Doctorates Produced till date	27	
7.	Papers published in international journals	29	
8.	Papers presented in national conferences	31	
9.	Awards won by students	24	
10.	No. of students passed out during 2013-14	UG	131
		PG	28
11.	No. of students passed out till date	UG	2272
		PG	620

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING**

ABOUT THE DEPARTMENT

In the area of Electronics and Communication, the department has been in the forefront, ever since 1968, in developing technologies and has emerged successful in creating generations of proficient engineers capable of competing technically across the globe. High quality of education is ensured as the students are being guided by Doctorate scholars and erudite professors over the years. The five year Accreditation (from April 2012) from National Board of Accreditation stands testimony to the department's credibility and consistency.

Fostering research and innovation, the department offers a Bachelor of Engineering (BE) programme in Electronics and Communication and Master of Engineering (ME) programmes in VLSI design, Communication systems, Wireless communication and M.TECH. Nanoscience & Technology. The department offers excellent laboratory facilities in the areas of Telecommunications, Digital Signal Processing, Embedded Systems, Networking, Microprocessor and Microcontrollers, Wireless and RF Communication and VLSI Design to the students. A separate network laboratory provides internet facilities to the students using leased line capacity of 2 Mbps.

Industrial exposure is made possible, with the aid of one credit courses and internships offered by elite companies. In addition to theoretical education, hands on experience is imparted to the budding engineers with the help of state-of-the-art laboratories, which is very significant.

Various laboratories in the department include Agilent MPLS Lab with different hardwares like - Agilent MSO 6014A-Agilent 33220A arbitrary waveform generator and latest software systems, vue and EM pro etc. Texas Instruments DSP Lab is equipped with Fixed and Floating point Digital Signal Processors and Code Composer Studio, Matlab. Intel Multicore Lab has Core 2 duo systems -V-Tune performance analyzer hardware and QualNet and Intel Visual FORTRAN Compiler software. The department laboratories include Intel Atom Processor Lab, PSG-Agilent Centre of Excellence (Advanced Wireless Technology), PSG Free scale Lab, PSG Infineon Lab, Analog and Digital Communication Engineering Laboratory, Digital Signal Processing Laboratory, Embedded System Laboratory, Network Laboratory, Network System Design laboratory, Bio-Medical Laboratory, VLSI Design Centre Phase I and Phase II, RF Design Laboratory, Microprocessor and Microcontroller Laboratory and PG Project Laboratory. VLSI Design Centre has been setup in the department with latest software in VLSI (under VLSI Project) which is funded by Ministry of Information Technology, New Delhi. The first phase of VLSI –SMDP project has been completed successfully and the second Phase of the VLSI-SMDP project has been started.

The department is equipped with an excellent library having around 3356 books catering to the needs of faculty, research scholars and students. Every year about 30 books are being added with the fund available from the VLSI Design Project. The department has been recognized to carryout research in the area of Electronics and Communication Engineering leading to Ph.D since 1996. Close interaction is maintained with the educational institutions and research laboratories such as CEDT of IISc, Bangalore; ECE Department, College of Engineering, Guindy, Anna University, Chennai; Electrical Engineering Department of IIT, New Delhi; ECE Department, Osmania University, Hyderabad; Computer Science Department, IIT, Bombay; Computer Science Department, IIT Chennai; PSG Institute of Medical Sciences and Research, Coimbatore and the ECE Department of KREC, Surathkal.

A close interaction is also maintained with industries like Texas Instruments, Bangalore, Agilent technologies, Bangalore, Free Scale Semi Conductor, Bangalore, Agilent Technologies, Bangalore, Soliton Automation Pvt Ltd., Coimbatore. The department has identified around 75 Industries in Chennai, Bangalore and Coimbatore for the project to be done by the undergraduate and the final semester PG students of Communication Systems, VLSI Design and Wireless Communication disciplines. ECE Department has more than 40% of alumni in abroad. Contribution from alumni for

updating the curriculum is very much commendable who also give special lectures to the present set of students on emerging technologies. Data base of alumni is being created for enhancing the interaction with them.

The department has been accredited by the National board of Accreditation (NBA) in the years 1997, 2001, 2004 and 2012. The department has also conducted many certificate courses on VLSI Design and Hardware description languages, CMOS VLSI, DSP & Embedded system Design Tools. Thirty seven research works leading to PhD degree have been completed in the various fields of Electronics and Communication Engineering by the department faculty members and QIP scholars.

Various International collaborations have been made with foreign universities like University of South Australia, University of Arkansas for students Exchange program. Summer Training Programme is offered to the San Diego state University students by the department Faculty members. Several International and National conferences are conducted by the Department to enhance the research skills among the student and faculty fraternity and also to improve the Industry-Institute interaction. To bring the state of the art technology exposure to the students, the department conducts several training programmes.

A brief on research activities

The department provides excellent facilities for the Ph.D and Research Scholars for doing their research in these fields.

The department has completed the project phase-I to develop Special Manpower in area of VLSI Design, for a period of five years from Department of Electronics, Government of India. The Phase II of SMDP in VLSI has been started and the laboratory has been setup.

MoU has been signed with Department of Electronics and the project IMPACT has been completed. Grants have been received from various organizations like AICTE, MHRD, MIT, DST, DOE, UGC etc. and industries like Intel, Motorola, Texas Instruments, Agilent Technologies and Swiss Development Corporation.

The department is equipped with hardwares like DSP processors and antenna Systems and licensed versions of software which include CADENCE, synopsis, Magma, Mentor Graphics, XILINX, ADS etc, Most of the final year students carry out a six month full time project in various industries like Intel, HP, Honeywell and Institutes like IISc and also do their project in the latest facilities available in the department.

Major areas of research

- Wireless systems
- Biomedical Engineering
- Networks
- RFMEMS
- RFIC Design
- Embedded Systems
- Digital Image Processing
- Digital Signal Processing
- VLSI Design
- Machine Learning
- Nanotechnology
- Microfluidics
- Sensors

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
•	Dr. S. Subha Rani Ph.D Professor and Head	ssr@ece.psgtech.ac.in	1988	Optimal Control and Wireless Communication
•	Dr. K. Gunavathi Ph.D Professor	gunavathi@ece.psgtech. ac.in	1986	High Speed Networks and VLSI Design
•	Dr.P.Kalpana Ph.D Professor	kalpana@ece.psgtech.ac. in	1997	Digital System Design and VLSI Design
•	Dr P Visalakshi Ph D Professor	spv@ece.psgtech.ac.in	1999	Computer Networks, Operating Systems and Embedded Systems
•	Dr.V.K.Manoharan Ph.D Professor	vkmanoharan@ece. psgtech.ac.in	2005	RF MEMS
•	Dr. P.T.Vanathi Ph.D Associate Professor	vanathi@ece.psgtech. ac.in	1987	Speech Signal Processing, Computer Networks and VLSI Design
•	Dr. V. Krishnaveni Ph.D Associate Professor	vk@ece.psgtech.ac.in	1997	Digital Signal Processing
•	Dr .T.Kesavamurthy Ph.D Asst.Professor (SrG)	tkm@ece.psgtech.ac.in	1995	Networking Image Processing and Global Positioning System
•	Dr. S. Allin Christe Ph.D Associate Professor	sac@ece.psgtech.ac.in	2004	Biomedical Image Processing
•	Dr. M.Santhanalakshmi ME Associate Professor	santhanalakshmisekar@ yahoo. co.in	2005	VLSI Design
•	Dr.K.Rajalakshmi ME Associate Professor	krl@ece.psgtech.ac.in	2005	VLSI Design
•	Dr.G.Srivatsun ME Associate Professor	gsn@ece.psgtech.ac.in	2006	Antennas, RF and Wireless Technologies
•	Mrs. S. Radharani ME Asst.Professor (SrG)	radharani@ece.psgtech. ac.in	1991	Communication Systems and Computer Networks
•	Dr. J. Ramesh Ph.D Asst.Professor (SrG)	jrameshbo@yahoo.com	2000	Communication Systems and VLSI Design
•	Dr.G.Umamaheswari Ph.D Asst.Professor (SrG)	uma@ece.psgtech.ac.in	2001	Data Communication and Information Security
•	Mrs. A. Uma ME Asst.Professor (SIG)	au@mail.psgtech.ac.in	2005	VLSI Design
•	Mrs.K.Vasanthamani Asst.Professor (SIG)	kva@ece.psgtech.ac.in	2010	Embedded Systems, Microprocessors, Embedded C, Software development and testing
•	Mr.M.Alagappan Asst.Professor (SIG)	man@ece.psgtech.ac.in	2009	Nanotechnology and embedded systems
•	Dr.A.Kannammal Ph.D Asst.Professor (SIG)	aks@ece.psgtech.ac.in	2007	Digital Image Processing.
•	Dr. C. Ramya Ph.D Asst.Professor (SrG)	crm@ece.psgtech.ac.in	2008	Digital Image Processing and Video Processing
•	Mr.T.Venkatachalam ME Asst.Professor (SrG)	tvm@ece.psgtech.ac.in	2008	Signal Processing Communications

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
•	Dr.R.Venkateshwari Ph.D Asst.Professor (SrG)	rvi@ece.psgtech.ac.in	2008	Wireless Communication Networks
•	Dr. P. Saravanan Ph.D Asst.Professor (SrG)	dps@ece.psgtech.ac.in	2009	VLSI Design, Testing and Verification
•	Mr.K.R.Radhakrishnan ME Asst.Professor (SrG)	radhabe@gmail.com	2010	VLSI Design
•	Mr.K.Thiyagarajan ME Asst.Professor (SrG)	ktr@ece.psgtech.ac.in	2011	RF Circuit Design and Wireless Communication
•	Mr.S.Mohandass ME Asst.Professor (SrG)	smd@ece.psgtech.ac.in	2011	Digital Signal Processing and Wireless Communication
•	Mr.S.Rakeshsharma ME Asst.Professor (SrG)	srs@ece.psgtech.ac.in	2011	Wireless communication, Image processing and Embedded system
•	Dr.U.Saravanakumar Ph.D Asst.Professor (SrG)	usk@ece.psgtech.ac.in	2009	VLSI Design
•	Dr. K.V.Anusuya Ph.D Asst.Professor	kva@ece.psgtech.ac.in	2004	Embedded systems, Wireless Networks and Advanced Computer architecture
•	Dr.S.Hema Chitra Ph.D Asst.Professor	shc@ece.psgtech.ac.in	2004	VLSI design, SoC design, Computer Architecture
•	Dr. D. Sivaraj ME Asst.Professor	dsr@ece.psgtech.ac.in	2004	VLSI design, SoC design and Computer Architecture
•	Dr.L.Thulasimani Ph.D Asst.Professor	ltm@ece.psgtech.ac.in	2004	Wireless communication and Network Security
•	Ms. P. Prabavathi ME Asst.Professor	ppv@ece.psgtech.ac.in	2009	RF Circuit Design
•	Ms.C.Sathyashree Sowbarnica ME Asst.Professor	css@ece.psgtech.ac.in	2015	VLSI Design
•	Ms.K.Chandra Devi M.Tech. Asst.Professor	kcd@ece.psgtech.ac.in	2010	Medical Nanotechnology

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1.	Ms.A.Uma	Ph.D	2013, Ongoing
2.	Mr.M.Alagappan	Ph.D	2012, Ongoing
3.	Mrs.R.Venkateshwari	Ph.D	2009, Ongoing
4.	Mr.P.Saravanan	Ph.D	2011, Ongoing
5.	Mr.K.Thiyagarajan	Ph.D	2012, Ongoing
6.	Mr.S.Mohandass	Ph.D	2012, Ongoing
7.	Mr.S.Rakesh Sharma	Ph.D	2012, Ongoing
8.	Mr.K.R.Radhakrishnan	Ph.D	2014, Ongoing

9.	Ms.P.Prabavathi	Ph.D	2016, Ongoing
10.	Ms.K.Chandra Devi	Ph.D	2014, Ongoing

2.2 Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of the Coordinators	Details of the programme	Collobarating agency	Period
1.	Dr.T.Kesavamurthy Dr.L.Thulasimani	One Day workshop on Introduction to Software Define Radio	-	26.06.2015
2.	Dr.P.Kalpana Dr.M.Santhanalakshmi Dr.K.Rajalakshmi	Two days workshop – on “Analog IC Design Flow”	-	11.08.2015- 12.08.2015
3.	Dr.S.Subha Rani Dr.R.Venkateswari Mr.S.Mohandass	One day Workshop on Wireless Sensor Networks – A Cognitive perspective using NetSim	IETE Chapter	22.08.2015
4.	Dr.P.Kalpana Dr.U.Saravanakumar Mr.K.R.Radhakrishnan	CoreEI – Digilent Workshop 2015	-	21.09.2015
5.	Dr.V.Krishnaveni Mr.K.R.Radhakrishnan	Advanced and Current trends in Avionics (One credit course)	Indian Navy, Cochin	26.09.2015- 27.09.2015
6.	Dr.G.Umamaheswari Mr.S.Mohandass	One credit course on E-Commerce Security	SEED, Chennai	28.11.2015- 29.11.2015
7.	Dr.K.V.Anusuya	A hands-on-training on Fundamental equipments usage, Embedded system bus protocols and Logic analyser	M/s Keysight Technologies	08.06.2015- 09.06.2015
8.	Dr.K.V.Anusuya	Hands on training in Logic analyzers, MSO 30000 series equipments	M/s Keysight Technologies	2.06.2015– 13.06.2015
9.	Dr.P.Kalpana	One day seminar on Cadence OrCAD PSPICE & OrCAD PCB	Entuple Technologies	24.06.2015
10.	Mr.T.Venkatachalam	Internship Seminar ME Communication Systems, ME VLSI Design, ME Wireless Communications	Hubino Technologies	29.06.2015
11.	Dr.P.Kalpana Mr.K.R.Radhakrishnan	Technical seminar on Signal Integrity issues MI/EMC&Reliability analysis	Entuple Technologies	06.08.2015
12.	Dr.P.Kalpana Mr.K.R.Radhakrishnan	Awareness Program on IEEE blender learning program in VLSI	-	22.08.2015
13.	Dr.S.Subha Rani Dr.T.Kesavamurthy Mr.K.Thiyagarajan	Recent Development in Radar Signal Processing	-	24.08.2015
14.	K.V.Anusuya	Hands on training in Logic Fundamental equipments usage, embedded system bus, protocols the communication software(VSA) and logical analyzer	M/s Keysight Technologies	08.01.2016- 09.01.2016
15.	Mr.K.R.Radhakrishnan	One day training programme on OrCAD PSPICE Tools for Electronic Product Design Flow	M/s.Entuple Technologies, Bangalore	20.01.2016
16.	Dr.P.Visalakshi	One credit course on LTE and the Evolution to 4G Wireless Communications	3G Networks Pvt Ltd, Bangalore	30.01.2016– 31.01.2016

S.No.	Name of the Coordinators	Details of the programme	Collobarating agency	Period
17.	Dr.P.Visalakshi Mr.T.Venkatachalam	Two dyas Workshop on Mobile Application Development		30.01.2016- 31.01.2016
18.	Dr.S.Subha Rani Dr.V.K.Manoharan Mr.M.Alagappan	Introduction to COMSOL Multiphysics		12.02.2016
19.	Dr.V.Krishnaveni Dr.S.Mohandass	One credit course on Internet of Things	Steps Knowledge services P.Ltd Coimbatore	19.02.2016- 20.02.2016
20.	Dr.S.Subha Rani Dr.P.Visalakshi Dr.G.Umamaheswari	An outreach workshop on Prime Minister's Fellowship Scheme for Doctoral Research	DST,CII	18.02.2016
21.	Dr.S.Subha Rani Dr.V.Krishnaveni Dr.T.Kesavamurthy Dr.K.V.Anusuya Dr.S.Mohandass Dr.R.Venkateswari Mr.K.Thiyagarajan	National Conference on signal Processing ,Information and Communication Engineering SPICE 2016		22.4.2016
22.	Dr.S.Subha Rani Dr.P.Kalpna Dr.V.K.Manoharan Dr.M.Santhanalakshmi Ms.A.Uma Ms.M.Alagappan Ms.K.Chandra Devi	National Conference on advances in micro and nanoelectronics		23.4.2016

2.3 Conference/Workshop/Training programme attended by faculty

S.No.	Name of the Faculty	Title of the Programme	Organizer	Period
1.	Dr.V.K.Manoharan	Three days workshop on Implementing Choice Based Credit System in Higher Education Institutions.	Anna University, Chennai	11.06.2015 – 13.06.2015
2.	Mr K.R.Radhakrishnan Ms.C.Sathyashree Sowbarnica	One day Training Programme on Comsol Multiphysics		19.06.2015
3.	Dr.K.V.Anusuya Mrs.K.Vasanthamani	Training program on CXC Program 2015	IISc, Bangalore	27.06.2015 – 28.06.2015
4.	Mr.K.Thiyagarajan Dr.U.Saravanakumar Ms.P.Prabavathi Mr.K.Rajasekar	ISO Auditors Training Programme		27.06.2015
5.	Dr..V.K.Monoharan Mr.K.Rajasekar Mr.N.Karthik	One day workshop for QEEE System Admin and Coordinator Training	IIT, Chennai	03.07.2015
6.	Dr.T.Kesavamurthy	Technical Co-ordination to build Radar project	Data Pattern, Chennai	09.07.2015 – 10.07.2015

S.No.	Name of the Faculty	Title of the Programme	Organizer	Period
7.	Mr.K.Rajasekar	Two Days workshop on Advanced Embedded system design on Zynq using Vivado targeting Zed board	NIT, Trichy	27.08.2015 – 28.08.2015
8.	Dr.V.Krishnaveni	Discussion regarding setting up Centre of Excellence for signal Processing	Texas Instruments, Bangalore	07.09.2015 – 08.09.2015
9.	Dr.G.Srivatsun	Foundation skills in Integrated product development “Train the Trainer Program”	Centre for faculty Development, Anna University, Chennai	27.09.2015 – 01.10.2015
10.	Dr.S.Allin Christe Dr.P.Saravanan Mr.S.Rakeshsharma	FDP on “Linear Algebra and its applications in Signal Processing”	CIT, Coimbatore	12.10.2015 – 16.10.2015
11.	Dr.V.K.Manoharan	Global Initiative for Academic Network	AICTE, New Delhi	13.10.2015 – 15.10.2015
12.	Mr.K.Rajasekar	QEEE Feedback session	IIT, Madras	31.10.2015
13.	Dr.K.Rajalakshmi Mrs.A.Uma	International Conference on Microelectronics Computing & Communication Systems	Indian Society for VLSI Education, Ranchi	14.11.2015 – 15.11.2015
14.	Dr.S.Subha Rani	National Higher Education Conclave 2015	Higher Education, Chennai	18.11.2015 – 19.11.2015
15.	Mr.P.Sivakumar Mrs.V.Uma Rani	A hands on training session on UE ultra Probe 15000	UE Systems, USA	-
16.	Dr.S.Allin Christe	Role of Visual Perception ability in Learning – Spatial Visualization	PSG CARE	04.12.2015 (FN)
17.	Dr.K.Rajalakshmi	Promoting engagement In the classroom	PSG CARE	04.12.2015 (AN)
18.	Dr.M.Santhalakshmi	Mentoring faculty towards Effectiveness	PSG CARE	05.12.2015 (AN)
19.	Ms.C.Sathyashree Sowbarnica Ms.S.Sindhu	Creative Teaching using Bloom’s Taxonomy	PSG CAS	11.12.2015 – 12.12.2015
20.	Mrs.V.Uma Rani	First Aid Awareness	Women development centre, PSG CT	12.12.2015
21.	Dr.V.K.Manoharan Mr.K.Chandra Devi Mr.M.Alagappan Ms.S.Sindhu	Seminar on “Materials, Processes and Devices for Flexible Electronics”	PSG Institute of Advanced Studies	14.12.2015 – 15.12.2015
22.	Mrs.A.Uma Mrs.K.Vasanthamani Mr.M.Alagappan Mr.K.R.Radhakrishnan Mr.S.Rakesh Sharma Mrs.P.Prabavathi Mrs.K.Chandra Devi Mr.K.Rajasekar	A user Awareness Session	Scopus database	17.12.2015

S.No.	Name of the Faculty	Title of the Programme	Organizer	Period
23.	Dr.S.Subha Rani Mr.K.R.Radhakrishnan	Second IEEE International conference on "VLSI Systems, Architecture	Amrita vishwa Vidyapeetham, Bangalore	10.01.2016 – 12.01.2016
24.	Dr.L.Thulasimani	TEQIP Phase II Sponsored "Train –The -Trainers Programmes"	Anna University – NASSCOM (FSIPD) EDC	19.01.2016 – 23.02.2016
25.	Dr.V.K.Manoharan Mr.K.Thiyagarajan	Workshop on Key Electromagnetic Concepts	SSN College of Engineering, Chennai	20.01.2016 – 22.01.2016
26.	Mr.K.Thiyagarajan	FDP on Learning Improvement Techniques	IIT, Madras	28.01.2016 – 30.01.2016
27.	Dr.S.SubhaRani	Strategy for Higher Education	PSG CARE	30.01.2016 (FN)
28.	Dr.S.SubhaRani	Blooms Taxonomy	Anaikatty	06.02.2016
29.	Dr.G.Umamaheswari Dr.S.Allin Christe Dr.M.Santhanalakshmi Mr.K.R.Radhakrishnan Dr.U.Saravanakumar Mr.S.Rakesh Sharma Mrs.K.Chandra Devi Ms.A.Uma Dr.P.Saravanan	Funding Opportunities and writing effective proposals for Research Funds	PSG CARE	08.02.2016
30.	Dr.V.K.Monoharan Dr.G.Srivatsun Mrs.P.Prabavathi	Training on Ansys software	PSG – CDAC HPC Centre	29.02.2016

2.4 Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Dr.P.T.Vanathi	National level workshop on Emerging trends on VLSI Design and Embedded System	Emerging trends on VLSI Design	Mar Athanasius college of Engineering, Kothamangalam	31.07.2015
2.	Dr.V.Krishnaveni	FDP on Linear Algebra and its Applications in Signal Processing	Multirate signal Processing	CIT, Coimbatore	14.10.2015
3.	Dr.J.Ramesh	Guest Lecture VLSI Testing	VLSI Testing	Kumaraguru College of Technology, Coimbatore	05.12.2015
4.	Dr.J.Ramesh	FDP on VLSI Design	VLSI Design	Sriguru Institute of Technology, Coimbatore	11.12.2015
5.	Dr.R. Venkateswari	DRDO Sponsored National Level Workshop on Data Analysis in wireless	Application of wireless sensor Networks and its platforms	PSGR Krishnammal College for Women	28.01.2016

		sensor Networks- Tools and Techniques			
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2.5 Award won by faculty

S.No.	Name of faculty	Nature of award	Awarded by	Date
1.	Dr.S.Subha Rani	Best Women Achiever Award	PSG CT	08.03.2016

3. DEPARTMENT ACTIVITIES

3.1 Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory Name	Equipment details	Cost in INR (lakhs)
1	Keysight MSOX 3014 A, 100 MHz 4+16 channels, 4 GSa/S with built in serial decode protocol Analyzer and with built in single channel/20MHz orbitray function generator - 14 Nos. Keysight MSOX 4024A, 200 MHz 4+16 channels, 5 GSa/S with built in serial decode protocol Analyzer and with built in dual channel/20MHz orbitray function generator - 4 Nos. Keysight Logic Analyzer 16851A, 34 channel 2.5GSa/S - 2 Nos. Keysight N5769A DC power supply, 100V, 15A, 1500W, Programmable power supply with LAN connectivity – 1 No.	14 Nos.	97.5
2	USRB E100 SDR Kit, SBX Daughter Board, Cable Assembly, SMA to SMA, Adapter, SMA –f to BNC, Cable Assembly, SMA-M to SMA-F Bulkhead	Each 1 No.	19.1
3	Video conferencing Polycom HDX 6000 -720P HD, Cable & connectors	1 No.	3.3
4	Netsim Academic Verson (7 additional user Licenses)	1 No.	1.06
5	Megger make Insulation Tester with std Accessories, Digital Storage Oscilloscope, Analog front end components set for the sensor board, Signal conditioning Electronics Component set	Each 5 Nos.	4.37
6	First Tech challenge Educational kit Tetrix Max Educational Base set EV3 Mindstrom core set , Educational Resource set, Lego Transformer	Each 2 Nos.	2.48
7	DLP Multimedia Projector with 3500 ANSI Lumens	1 No.	0.25
8	Anti-Static Temp. controlled soldering station with Heavy duty stand	1 No.	1.2
9	Synopsys EDA Tool 9499-0 Synopsys Asia PAC 2D TCAD University Bundle	5 License	6.9

S.No.	Laboratory Name	Equipment details	Cost in INR (lakhs)
10	Orcad [®] PCB Design University Edition, PCB Bundle, Capture, CIS Option, Pspice advanced Analysis, SLPS Option, PCB Designer professional	10 License	5.0
11	Klystron/Gunn based Microwave bench	2 Nos.	1.3
12	Function Generator Digital Multimeter	10 Nos. 15 Nos.	1.1
13	CC3200 simple Link Wi-Fi Launch Pad for IoT Application	24 Nos.	0.73

3.2 Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & Status	Duration	Grant in INR (lakhs)
1	Dr.P.Kalpna Dr.K.Raja lakshmi	Special Manpower Development Programme for Chip to systems Development (SMDP - C2SD)	DeitY/MCIT New Delhi	2015	1 year	1.69 Crores
2	Dr.T.Kesava murthy Mr.K.Thiyagarajan	Design and Development of Indigenous Phased Array RF Volume Coil for 1.5 Tesla Magnetic Resonance Imaging	DST, New Delhi	2015	2 year	25.38
3	Mr.M.Alagappan CO-PI	Design & Development of Wireless Embedded Microcontroller Based Portable Nano Scale Toxic Gas Sensor System	UGC-MRP	2015, Ongoing	3 Year	6.11
4	Dr.S.Subha Rani Mrs.A.Kannammal Mrs.C.Ramya	Test bed architecture for authentication, confidentiality, integrity of sensitive DICOM images	AICTE, RPS	2013 Completed	3 Year	17.25
5	Dr.S.Subha Rani Dr.V.Krishnaveni Dr.T.Kesava murthi	Design and development of CAP Based Wireless Communication system for Multichannel EEG recording.	DST, New Delhi	2012 Completed	3 Year	58.89
6	Mr.S.Mohandass	Design and Development of GSM Energy Communication Network Base Station based on Universal Radio Peripheral	UGC	2014 – 2016 Completed	3 Year	2.70 l

3.2.1 Sponsored research activities – Abstract

Special manpower development programme in VLSI

Ministry of Communications & IT, Government of India has promoted the “Special Manpower Development Programme for VLSI Design and Related software” with an objective of developing the VLSI activities through the establishment of VLSI Centres and giving training to under graduate, post graduate (MS / M Tech) and Doctoral (Phd) levels in VLSI related fields. SMDP-I was initiated in the year 2000, involving nineteen institutions categorized into 7 resource centers (RC’s) and 12 Participating Institutes (PI’s) with PSG College of Technology as one among the Participating Institutes. After the completion of this Project, the second phase of the Program (SMDP-II) (2005 – 2010) was started in 2005 with additional support of advanced CAD software tools for VLSI Design Centre. In addition to the manpower development, in house chip was designed along with IISc Bangalore and fabricated at 180nm technology with three design modules. Hence the SMDP - II project was extended till 2014.

In 2015 Department of Electronics and Information Technology has initiated Special Manpower Development Programme for Chips to system Design (2015 – 2020) . PSG College of Technology is one among the 60 institutions in India, sanctioned with the total project outlay of 1.69 crores with the following objectives,

- a) Bring in a culture of system on Chip/System designing by developing working prototypes with societal applications using mostly in-house designed ASICs/ICs.
- b) Capacity building in the area of VLSI/Microelectronics and Chip to System development i.e to train Special manpower in the area of VLSI Design and chips to Systems at BE/B.Tech,ME/M.Tech and PhD level.
- c) Broaden the base of ASIC/IC designing in the country.
- d) Broaden the R&D base of Microelectronics /Chip to system through “Network PhD” program, received grant of support under Visvesvaraya PHD scheme.
- e) Promote “Knowledge Exchange Program”.
- f) Promote protection of “Intellectual Property” generated under the program.

Design and development of indigenous phased array RF volume coil for 1.5 tesla magnetic resonance imaging

The main objective of this research project is to design and develop a volume type phased array coil for 1.5 Tesla MR imaging which is effective in achieving uniform magnetic field and better SNR. There are 32 phased array elements used for multichannel (32 channel) transmit and receive operation. In addition to this, there are 16 transmit and 16 receive elements combined to act as 32 channel phased array volume coil. The commercial potential of this proposed work leads to the development of a new 1.5 Tesla RF coil in order to satisfy the current industrial needs of MRI Machine.

Design and development of wireless embedded microcontroller based portable nano scale toxic gas sensor system

Over the past five decades, there had been an increasing demand for inexpensive, accurate, portable and reliable gas sensors that can discriminate among very low concentrations of analytes. Typically, gases of interest include CO, NO, NO₂, NH₄, SO₂, CO₂, CH₄ and other hydrocarbons. These gases can be harmful to human health if present beyond a certain concentration. Historically, gas sensors were first primarily used in coal mines where accurate monitoring of hazardous gases has to be carried out continually. Soon gas sensors were also beginning to appear in the chemical industry, environmental pollution monitoring units and in the human health sectors. But there is no portable universal gas sensor system used for commercial and defence applications. The Carbon Nano Tube (CNT) based gas sensors are still in infant level and such kind of devices/products are not available in the commercial market. Therefore, with respect to the Indian scenario, the proposed work will

provide a solution for solving the existing problems related to the toxic gas detection applications. The objectives of the work are

- To develop a nanoscale toxic gas detection sensors using CNT based polymer materials.
- To develop a wireless embedded microcontroller based portable system using the sensor.
- To validate the developed sensor with standard NO₂, SO₂ and CO₂.
- To improve the sensitivity and performance efficiency of the developed sensors.

3.3. Consultancy

S.No	Faculty	Name of Organization	Nature of work
1.	Mr.K.R.Radhakrishnan	Anna University, Coimbatore	Logic Analyser
2	Dr.G.Srivatsun	Mr.M.Gerard Gabriel Raja M.Tech Student, Karunya University	RF Vector network Analyser
3	Dr.S.Allin Christe Dr.S.Mohandass	M/s.Yantra soft systems Pvt. Ltd., Bangalore	Image Processing

3.4. Doctoral research

S.No.	Candidate	Short title/Area of work	Supervisor with designation & institution	Year of registration & status	
1.	Mr.S.Rakeshsharma	Wireless Communication	Dr .S SubhaRani Professor &Head, Dept. of ECE PSG CT	2012/In progress	
2.	Mr.K.R.Radha krishnan	VLSI Signal processing		2014/ In progress	
3.	Ms.P.Prabavathi	RF Communication		2016/In progress	
4.	Ms.Komathy Vanitha.K	VLSI Design	Dr.K.Gunavathi Professor Dept. of ECE PSG College of Technology	2014/ In progress	
5.	Ms.K.Malarvizhi	Data mining			
6.	Mr.M.Elangovan	VLSI			
7.	Mr.N.Selvamuthu kumaran	Network security			
8.	Ms.S.Priya	Data mining			
9.	Ms.R.Anitha	Signal processing			
10.	Ms.A.Uma	VLSI	Dr.P.Kalpna Professor Dept. of ECE PSG CT	2013/In Progress	
11.	Mr.S.Tamizharasu	VLSI		2014/ In progress	
12.	Mr.S.Kamalakannan	VLSI		2013/In progress	
13.	Ms.R.Mythili	VLSI		2014/ In progress	
14.	Ms.M.Priyadarshini	Network on chip	Dr.P.T.Vanathi Associate professor, Dept. of ECE	2010/ In progress	
15.	Ms.A.Amsaveni	Image processing			
16.	Mr.Sukumar .D (M)	Signal processing			2010/ In progress
17.	Mr.S.Gopalakrishnan	Image processing			2014/ In progress
18.	Mr.S.Logeshkumar	Nano Technology			2014/ In progress
19.	Mr.A.Venkatesan	Wireless			2014/ In progress
20.	Mr.V. Gnana Prakash	Image Processing	2014/In progress		

S.No.	Candidate	Short title/Area of work	Supervisor with designation & institution	Year of registration & status
21.	Mr.S.David	Wireless	PSG College of Technology	2015/ In progress
22.	Ms.C.M.Preethi	Image Processing		2015/ In progress
23.	Ms. R.Kavitha	Signal processing	Dr.V.Krishnaveni Associate professor, Dept. of ECE PSG CT T	2010/ In progress
24.	Mr. P.Karthikumar	Signal Processing		2011/In progress
25.	Ms.Ezhilarasi	Signal Processing		2011/In progress
26.	Ms.M.Ramya	Image Processing		2014/ In progress
27.	Ms K Vasanthamani	Embedded Systems		2009/In progress
28.	Ms N Brindha	Image Processing		2010/ In progress
29.	Ms Jiji Narayanan	Wireless Networks	Dr P Visalakshi, Associate professor, Dept. of ECE PSG College of	2011/In progress
30.	Mr S BalaMurugan	Database Security		2009/In progress
31.	Ms C Sivamani	Wireless Networks		2010/ In progress
32.	Mr John Blesswin	Visual Cryptography		2011/In progress
33.	Mr R Dhanapal	Wireless Networks		2009/In progress
34.	Mr. S.Dhanasekar	OFDM		2010/In progress
35.	Mr. C.Arunkumar Madhuvappan	Video Compression	Dr.J.Ramesh Asst. professor, (SrG), Dept. of ECE PSG College of Technology	2010/In progress
36.	Mr. V.Govindaraj	VLSI Testing		2011/ In progress
37.	Mr. B.Vinodh Kumar	Embedded system		2011/In progress
38.	Ms. T.Mythili	Wireless sensor Networks		2012/ In progress
39.	Mr. K.Thiruvenkadam	Low power VLSI Design		2012/ In progress
40.	S.Danasekaran	Wireless Communiation		2015/ In progress
41.	Umamaheswari	VLSI Design		2015/ In progress
42.	P. Vivek Karthick	High speed VLSI Architecture		2016/ In progress
43.	Ms.Sanjana Prasad	Wireless communication		2016/ In progress
44.	Ms. C.Priya	Medical Imaging		Dr.T.Kesava murthi Associate professor Dept. of ECE PSG College of Technology
45.	Mr. K.Thiyagarajan	RF Communivation systems	2012/In progress	
46.	Mr. S.Sivarama Krishnan	Wireless Networking	2012/In progress	
47.	Ms. Premlatha	DSP	2012/In progress	
48.	Ms. P.Hemalatha	VLSI	2012/In progress	
49.	Ms.S. Kirthika	Optical Communication	2015/ In progress	
50.	Ms.D. Hemapriya	Biomedical	2015/ In progress	
51.	Ms.P. Prema	Biomedical	2015/ In progress	
52.	Ms.I.Kalphana	Wireless Communication	2015/ In progress	
53.	Ms.K.S.Riya	Magnet	Thesis Submitted	
54.	Ms. M.Megala	Web security	Dr.G.Uma maheswari,	2010/ In progress
55.	Ms.P.Rebha	Wireless communication		2011/ In progress

S.No.	Candidate	Short title/Area of work	Supervisor with designation & institution	Year of registration & status
56.	Mr.S.Arun	Cognitive radio networks	Asst Professor, (Sr.G), Dept of	2012/In progress
57.	Mr. Jegan.R.	Wireless sensor Networks	Dr.K.V.Anusuya Asst. professor, Dept. of ECE PSG CT	2012/In progress
58.	Mr.D. Sam David Jero	Real time operating system		2012/ In progress
59.	Mr.G.M.Karpura Dheepan	Wireless sensor networks		2012/ In progress
60.	Ms.K.Hemalatha	Data mining and Clustering	Dr.K.Rajalakshmi, Associate Professor, Dept. of ECE PSG CT	2016/ In progress
61.	Ms.B.A. Sapna	Antennas	Dr.G.Srivatsun, Associate Professor, Dept. of ECE PSG CT	2014/ In progress
62.	Ms.S.Geetha	Wireless Communication & Smart Grid		2015/ In progress
63.	Mr.S. Elamaran	RF		2015/ In progress
64.	MS.A.Hefilia	Antennas		2015/ In progress
65.	Mr.A.Sankar	Medical Image Processing	Dr.A.Kannammal, Asst Professor Dept. of ECE PSG CT	2016/ In progress
66.	Mr.N.Rathina Kumar	Information forensics and security	Dr.C.Ramya, Asst Professor (Sr.G), Dept. of ECE, PSG CT	2016/ In progress
67.	A.Hylin Sharon Magdalene	Wireless Commn	Dr.L.Thulasimani Assistant Professor, Dept of ECE, PSG CT	2016/ In progress

3.4.1. Doctoral research-Abstract

Energy Efficient Communication Protocols and Transceiver Design for Wireless Body Area Networks

Supervisor : Dr. S. Subha Rani

Candidate: R.Venkateshwari

Engineering approach provides numerous advantages in most of the healthcare sectors, such as monitoring of elderly, disease prevention and rehabilitation, an engineering approach provides numerous advantages. This study aims to make contributions to the advancement in the wireless and MEMS technology for the chronic patients, sports persons and common people. There are many existing medical monitoring systems using specialized equipment which could send data using either standard telephone lines or specially designed network for medical applications. However, these systems are not location independent and in most cases, they are clumsy in nature due to the use of wired sensors. The Wireless Body Area Network (WBAN) is a key technology which effectively supports this field. The sensor node is either wearable or implanted inside the human body and the critical issue is energy efficiency.

The main objectives of the study are to design an energy efficient communication protocol to transmit and receive the medical datum in an efficient way, to propose a low power architecture for the implantable medical devices in the MICS Band and to test the algorithms in a real hardware for evaluating the energy efficiency, latency, and mobility requirements which revolutionize healthcare system. The design of communication protocol includes both the medium access and routing protocols. Here, the medium access should be performed in an energy efficient manner and the routing protocol must be capable of routing the medical information to the internet. In order to increase the comfort level, the algorithms should support mobility.

In this research work, different modules are proposed to effectively transmit the health information about human being. At first a modification in the IEEE 802.15.4 superframe structure is performed in order to make it compatible for Wireless Body Area Network. As most of the data is sent only in the guaranteed time slots, it has the inherent advantage of saving power. The modification in the response time accounts for lower end to end delay. The existing on demand routing protocol, namely the Dynamic Source Routing (DSR) has been modified to support the power and delay requirement and the performance is analyzed with the proposed Medium Access Control (MAC) protocol. From the results, it is concluded that the cross layer design of networking layers proved as the most promising alternative to inefficient traditional layered protocol architectures.

The sensed data are transmitted wirelessly through the route defined by the routing protocol which supports Internet of Things (IOT). The IETF's work group of routing over low power and lossy network develops the Routing Protocol for Low power and lossy networks (RPL) based on IPv6. RPL forms paths towards roots based on one or more metrics. From the analysis, it is shown that RPL is a suitable protocol for WBAN in terms of throughput, power, and packet loss. The final contribution of this study is for the implantable medical transceivers. The transmitter consumes 900 μ W with good linearity and the receiver consumes 485 μ W of power. Overall, these technologies aid the pervasive health monitoring.

Improvement in Cognitive Radio Networks

Supervisor : Dr. Uma Maheswari.G

Candidate: Mohandass.S

The exponential growth of spectrum requirements for wireless communications leads to spectrum scarcity. However, recent researches show that wide ranges of the spectrum are rarely used most of the time, while other bands are heavily used. This leads to inefficient utilization of available radio resources. Cognitive Radio (CR) has been recognized as a promising technique to solve the spectral crowding problem. It bridges the gap between spectrum scarcity and underutilization of the available spectrum, through Dynamic Spectrum Access (DSA) techniques. The concept of CR enables coexistence of the legacy systems and new users, which are called the Primary Users (PUs) and Secondary Users (SUs) respectively.

The main objective of this research work is to devise efficient Interference Cancellation (IC) algorithms for CR systems under DSA conditions. In this research work, underlay and interweave CRN architectures are considered, where SUs are enabled to share the available bandwidth with the existing PUs. A major research challenge for CR systems is to increase the system capacity at a low complexity, with high Bit Error Rate (BER) performance. Interferences among PUs and SUs degrade the BER performance of the system and hence limit the system capacity. IC algorithms are generally used to mitigate the interference caused among the users. This research work attempts to investigate the interference mitigation techniques for CR systems using different modulation schemes and under various channel conditions, with a view to minimize the BER and to enhance the system capacity.

The existing IC algorithms are modified in order to improve their performance in CR systems. The performances of the proposed IC algorithms are evaluated by computer simulation under various

channel conditions. It has been demonstrated using the simulation results that, the proposed algorithms outperform the conventional algorithms in mitigating the interference among the users in CRN. Also in this research work, antenna diversity techniques are used along with IC techniques, in order to achieve diversity gain in the BER performance of the CR systems over multipath fading channel.

Investigations on Power Analysis Attacks and Countermeasures in Secure Systems

Supervisor : Dr. P.Kalpana

Candidate: Saravanan.P

Modern security systems such as smart cards and Radio Frequency Identification (RFID) tags use cryptographic algorithms to provide confidentiality, integrity and authenticity of data. Breaking a cryptographic algorithm typically means finding the secret key. In the real world, an adversary has access to the cryptographic device and can tamper with it or monitor some physical leakages that emanate from the chip. These are classified as side-channel attacks which target the cryptographic device itself. The proposed research targets power analysis attacks as they are one of the most powerful and common type of side channel attacks. The main objective of this research is to investigate both power analysis attacks and their countermeasures on cryptographic devices. In this research, a novel method is proposed to perform power analysis attacks on cryptographic devices based on machine learning method. In order to safeguard the secure system against the power analysis attacks, two different countermeasures are proposed in this research at different levels of abstraction such as circuit level and gate level. The proposed countermeasures can be used to design secure hardware in low-energy applications, such as smart cards, RFID tags, wireless sensors and biomedical devices.

3.5 Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	4405	-	-	-	-	-
2	GRD Library - ECE Department	15447	2789	1397	26	26	NIL

3.6. Board of studies

S.No.	Date	Agenda	External experts
1.	31.10.2015	<ul style="list-style-type: none"> Preparation of UG scheme and detailed syllabi for (3rd semester to 8th Semester) 2015 regulation, under Choice based credit system. 68. Introduction of newelectives for UG/PG and research electives Introduction of one credit courses for UG/PG 	<p>Dr.M.Santhi Associate Professor, Department of ECE Government College of Engineering Salem – 636 011</p> <p>Dr.S. Rajaram, Associate Professor Dept. of Electronics & Communication Engg; Thigarajar College of Technology Madurai – 625 015</p>
2.	26.03.2016	<ul style="list-style-type: none"> Finalization of detailed syllabi for BE(ECE) Programme Introduction of new electives for UG/PG and research electives 69. Introduction of one credit courses for UG/PG 	<p>Dr.M.Manikandan Associate Professor Department of Electronics Madras Institute of Technology Anna University, Chennai - 600 044</p>

S.No.	Date	Agenda	External experts
			<p>Mr.Damodara, M.S.Product Manager at Global IEEE</p> <p>Mr.V.V.Pathy Business Development Manager Keysight Technologies India Pvt Ltd., RMZ Centennial, "C' Block, Bangalore</p> <p>Mrs.N.Kavitha Technical Director STEPS Knowledge Services (P) Ltd., No.11, B.R.Nagar, Opp to CBE Stock Exchange, Coimbatore – 641005</p>

3.7. Research Publications

3.7.1. Papers published in international journals

1. S.Subha Rani, J.Niresh, "Review of Acoustic Characteristics of Materials using Impedance Tube," *ARPN Journal of Engineering and Applied Sciences Asian Research Publishing Network*, , ISSN 1819-6608, Vol.10 May 2015
2. S.Subha Rani, J.Niresh, "Performance Testing for Sound Absorption coefficient by Using Impedance Tube," *Research Journal of Applied Sciences, Engineering and Technology Maxwell Scientific Publications Corp* 11(2): 185-189. 2015 ISSN 2040-7459, e-ISSN 2040-7467 May 2015
3. S.Subha Rani, R.Venkateswari, "A robust MAC Protocol for Wireless Body sensor network," *Journal of Scientific and Industrial Research* Vol.75 pp 334-337 June 2015
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3.7.2 Papers published in National Journals

1. S.Hema Chitra, N.Vinay Reddy, " A Pipelined Fused Processing Unit for DSP Applications," *National Journal of Technology PSG College of Technology* ISSN-0973-1334, Volume:11 Issue No.1 March 2015
2. S.Allin Christe, M.Balaji, " HW/SW Co-design of various Image Processing Algorithms Using Xilinx System Generator," *National Journal of Technology PSG College of Technology* ISSN: 0973-1334 Volume:11 Issue No.1 Pg.No-1-9 Mar 2015
3. M. Alagappan, Pratima Saravanan , "Performance Evaluation of Novel Inflow Cannula For Left Ventricular Assist Device," *National Journal of Technology PSG College of Technology* 11 (2) & 60-63 ISSN - 0973 – 1334 June 2015

4. STUDENT ACTIVITIES

4.1. Student strength

S.No.	Class	No. of students
1	BE (ECE) G1 - I Year	61
2	BE (ECE) G2 - I Year	58
3	BE (ECE) G1 - II Year	68
4	BE (ECE) G2 - II Year	67
5	BE (ECE) G1 – III Year	64
6	BE (ECE) G2 – III Year	72
7	BE (ECE) G1 – IV Year	75
8	BE (ECE) G2 – IV Year	67
9	ME (Communication Systems) – I Year	16
10	ME (Communication Systems) – II Year	14
11	ME (VLSI Design) – I Year	17
12	ME (VLSI Design) – II Year	17
13	ME (Wireless Communication System) – I Year	10
14	ME (Wireless Communication System) - II Year	13
15	ME(Nano Science Technology) – I Year	07
16	ME(Nano Science Technology) – II Year	13

4.2. Association activity

S.No.	Topic	Chief guest &Affiliation	No. of participants	Date
1.	First year orientation	-	150	21.07.2015
2.	Career Opportunities in Armed Force/Navy/Air Force”	Commander M.Ramasubramanian, Officer In-charge, Aircraft & Engine Holding Unit, Indian Navy	150	21.07.2015
3.	Career Decisions	Mr. Kowshik Venkatraman Chief Operating Officer FACE, Coimbatore	150	21.07.2015
4.	Electronics in Heavy Vehicles	Mr. Vijay Ramaswamy Manager , Electronics Division, India, Caterpillar Inc.,	150	22.07.2015
5.	Professional Ethics	Mr Kamalanadhan, Regional Director (Retd.) AIR,chennai	150	22.07.2015
6.	Competency Building	Ms D Vahini, Asst.Vice President Inautix,Chennai	150	23.07.2015
7.	Inaugration of ECEA	-	600	23.07.2015
8.	Dhyan	-	90	6.09.2015
9.	Kriya	Inter college event	-	28.09.2015 29.09.2015

4.3 Activities of technical society – student chapter

S.No.	Society name	Topic	Chief guest & affiliation	No. of participants	Date
1	IETE Student chapter	Technotronz	--	40	24.09.2015 & 25.09.2015
		Training program on Netsim	System Analyst , Tetcos, Bangalore	80	12.10.2015
		Video chat with tech experts	D.Lavanya and Mr.V.Krishna Reddy, DRDO Bangalore	30	14.03.2016

4.4. Co-curricular and extra-curricular activities

S.No.	Nature of activity	No. of students	No. of awards
1	Paper presentation	18	6 (received Best paper awards)

4.5. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by
1.	Baby Nandhini.S	14ML02	ECE Alumni Association (for the class topper)	Second position	ECE Alumni Association
			National Conference on Signal Processing Information and Communication Engineering (SPICE 2016)	Best Paper award –	
				Best Project award	PSG CT Alumni Association
2.	S. Naveena Sherin	14ML05	ECE Alumni Association (for the class topper)	First position	ECE Alumni Association
			Tech Day	Best Outgoing Student Award	PSG CT
3.	Sandhana Mahalingam.M	14ML06	National Conference on Signal Processing Information and Communication Engineering (SPICE 2016)	Best Paper award	PSG CT
4.	Sivaram.S	14ML08		Best Paper award	
5.	Yamini.T.M	14ML10		Best Paper award	
6.	R.lyswarya	14ML33		Best Paper award	
7.	Sharma.S	14ML07	PSG Tech Alumni Association	All Rounder Award	PSG Tech Alumni Association

4.6. Final year project work

4.6.1. UG project (G1)

S.No.	Roll No.	Name	Title of the project	Guide
1	12L118 12L165 12L147 12L126	Jayabrindhadevi.J Vinita.N Ranjitha.R Keerthy.V	OTFT Based AMOLED pixel circuit to alleviate OLED Degradation	Dr.L.Thulasimani
2	12L104 12L156 12L112	Anand kumar.K Sowdharpandian.M Crispin A jebin.M	An Irrigation Control System based on FPGA	Dr.M.Santhalakshmi
3	12L105 12L120 13L412 12L144	Anusuya.A Karthika.P Sowmiya.S Punithavathi.J S.Ragavi	Design of Thin flame Inverters	Ms.A.Uma
4	12L112 12L139 12L131 13L402	Arun Kumar.S Pavish.S Murugavel.M Avinash.K	Fabrication of amorphous metal oxide TFT	Dr.U.Saravana kumar

S.No.	Roll No.	Name	Title of the project	Guide
5	12L134 12L137 13L408 12L133	Nandhini.S Nishanthini.L Pavithra.G Nandhini.G.V	-	Ms.Prabhavathi
6	12L140 12L151 12L160 12L102	Pavithra.S Selva Priya.P Swarnadharshini.A Aishwarya Lakshmi.P	Wireless health monitoring system	Dr.A.Kannammal
7	12L160 13L411 13L413 12L125	Valarmathi.E Shangavi.J.R Sri Devi.S Keerthika.R	Ventilation Parametric tester using Arduino Uno	Mr.T.Venkatachalam

4.6.2. UG project (G2)

S.No.	Roll No	Students name	Title of the project	Guide
1	12I201 12I232 12I240 12I260	Adithya M B Prakash .R Ramesh S Vipin chandran K	Facial recognition through hull point analysis using qualcom SDK	Dr. S. Mohandass
2	12I202 12I206 12I222 12I214	Akshaya .E Arul jothi V Kousika B Hari chithra R	Data acquisition and control using IoT	Mr.S.Rakeshsharma
3	12I203	Akshaya .G	Driver drowsiness detection	Dr. T. Kesavamurthy
4	12I204	Alldreen dev W P	Open source test automation framework	Dr. G. Srivatsun
5	12I205	Aparna shankar	Standardisation of PCB in analog hour RPM meter	Dr.v.k.manoharan
6	12I211	C V Gayathiri Monika	Analysis of financial model using SAP	Dr. D. Sivaraj
7	12I207	Aujasv kumar	Multipurpose bio inspired underwater drone for monitoring and security	Mr. K. Thiyagarajan
8	12I208 12I209	Bassa naga sneththa Bavithra R	Intelligent courier mailbox system	Dr. G.Uma maheswari
9	12I210 12I216 13I437 13I441	Chandru K Janani R Saginas banu A Suryaa .S	Iris recognition by using FPGA image processing	Dr. P. Saravanan
10	12I212	Dinesh K S M	Design and testing of IR blaster	Dr. G. Srivatsun
11	12I213 12I252	Gowtham E Suruthi maragatha ruby A	Infant care system	Dr.v.k.manoharan
12	12I215 12I242 13I433	Ilakkiya .R Renuka devi N Manjunath A	Design and development of next generation logic controller for machine automation using arm cortex a8	Dr. P. Kalpana

S.No.	Roll No	Students name	Title of the project	Guide
13	12I217 13I436 12I225 13I443	Jeevanantham N Ramaswamy B Mohamed ashik G Thananjayan gokulraj M	Milk analyzer using embedded system in dairy farmers	Dr. T. Kesavamurthy
14	12I238 12I219	Rajasekar R Keerthana R	-	Ms. K. Vasanthamani
15	12I220 13I438	Keshika r S Sakthivel S	Zero touch for increasing SNR and reducing time	Dr. D. Sivaraj
16	12I221 12I249 13I442	Kiruthika R A Suguna B Tamilarasan R	Yoga posture modelling	Dr. S. Allin christe
17	12I224 12I247 12I226 12I254	Lokesh V Somesh K Mothiraj J Syed inayathulla S	Fleet management	Dr. G. Srivatsun
18	12I227 12I231	Arun prasath .M Nivaethethai A S	Alternate telltale design for audi a and Q series	Dr. K. Rajalakshmi
19	12I229	Nandhini G R	Can protocol based autosar communication stack	Dr. K.V. Anusuya
20	12I233	Praveenkumar K	RF based wireless pressure indicator	Dr. V. Krishnaveni
21	12I234	Purushothaman B	Custom ETL solution	Ms.K. Vasanthamani
22	12I235	Raabith khan R	Network performance enchacement using VLAN techniques	Dr. S. Mohandass
23	12I239	Ramasubramanium G	Network security management- SRX scaling and performance automation	Dr. D. Sivaraj
24	12I241	Ramya K	Release protocol redesign	Dr. K. Rajalakshmi
25	12I236 13I431	Ragul .N Anish M	Automotive regulator rectifier unit and measurement of vibrant and impact using accelerometer	Dr.v.k.manoharan
26	12I237 13I439	Rajarajeswari D Shruthi S	Advanced planning and procurement system	Dr. P. Saravanan
27	12I243 12I256	Sandhiya .P Venkatesan B	Simpulator virtual platform	Dr. P. Kalpana
28	12I244	Shivani S	Intravehicle communication and information handling in engine	Dr. S. Allin christe
29	12I245 12I257	Shreenithi S K Vignesh U	Integrated test suite	Dr. T. Kesavamurthy
30	12I250	Suki priya D	Software integration, test and release for machine engine applications	Dr. K. Rajalakshmi
31	12I253	Sushmitha J	Model risk management (model validation and model monitoring	Dr.G.Uma maheswari

S.No.	Roll No	Students name	Title of the project	Guide
32	12I246 12I258 13I432 13I435	Siddarth narayanan Vijay P Harishgiri M Naveensundar D	Removal of high density impulse noise through non linear filter	Dr. V. Krishnaveni
33	12I255	Vaishnavi P	Website development for the online sale of customized bikes	Dr. G. Uma maheswari
34	12I259 12I261	Vikram s rao Yash khemka	Energy management system based on microcontroller 8051 and study of manufacturing technology	Dr. S. Mohandass
35	13I440	Sugantharaja .R	Intelligent lens thickness measurement using opencv	Dr. P. Kalpana

4.6.3. PG Project

4.6.3.1. ME Wireless Communication

S.No.	Roll No	Name of Student	Title of the Project	Guide
1	14PI01	Datla Varaha Lakshmi Narasimha Rajua	Circular fractal antenna with tunnable radiation pattern	Dr. L. Thulasimani
2	14PI02	Edukondalu Vallapuneni	Dual-Antenna system for mobile terminals	Dr. V. K. Manoharan
3	14PI03	Gayathri N	Gas Engine Application Development-Support Jacket Water Pressure Sensor	Dr. T. Kesavamurthy
4	14PI04	Jeromina J	Implementation of energy efficient clustering algorithm in TelosB Motes	Dr. K. V. Anusuya
5	14PI05	Johnsyarani R	Fractal based reconfigurable antenna using SPDT switch	Dr. T. Kesavamurthy
6	14PI06	Khavya G	Design of multiband reconfigurable compact truncated monopole antenna	Dr. A. Kannammal
7	14PI07	Muthusharmila S	Implementation of secure DICOM image Transmission using WARP V3 Board	Dr. G. Umamaheswari
8	14PI08	Prabha Suresh	Real time Pedestrian Detection in Distributed Surveillance Network	Dr. V. Krishnaveni
9	14PI09	Sathish Kumar S	Design of Quad-band patch antenna using slotting technique	Dr. A. Kannammal
10	14PI10	Shrinidhi S Hegde	Design and implementation of monitoring device for Sydenham's Chorea	Dr. K. V. Anusuya
11	14PI11	Tamilarasan T	Designing of Narrow band Down converter for RADAR Applications	Mr. K. Thiyagarajan
12	14PI31	Kavitha P	Multiscale approach for region based medical image compression	Dr. A. Kannammal
13	14PI32	Suguna S	Detection of rushing attacks using modified-CBDS approach in MANETS	Dr. P. Visalakshi

4.6.3.2. M.E-VLSI Design

S.No.	Roll No.	Name of the student	Title of the project	Name of the Guide
1	14MV09	G.Varun	Low Power Verification of SoC using UPF	Dr.S.Subha Rani
2	14MV01	P.Ashok	Design of TFET for steep SS and high ion	Dr.P.Kalpana
3	14MV04	D.Lalitha Kathambari	Remote firmware update of Powerlink nodes using Multi boot in FPGA	Dr.P.Kalpana
4	14MV32	A.Athisakthi	Design of low power Precomputation based Content Addressable Memory	Dr.P.Kalpana
5	14MV10	R.Yogeshwaran	Exhaustive Proof for Binary floating point instructions	Dr.S.Hema Chitra
6	14MV34	Jotheesh Kumar	Verilog Implementation of Optimized Elliptic Curve Crypto Processor for FPGA platform and its Performance analysis	Dr.S.Hema Chitra
7	14MV05	Maram Reddy Siva Reddy	RFX SAS: UVM RAL based Verification	Dr.K.Rajalakshmi
8	14MV37	M.Yogha Ranjitha	VLSI Implementation of Adaptive LMS Filter for Channel Equalizer	Dr.K.Rajalakshmi
9	14MV08	S.Manoj Kumar	Dynamic Power Estimation and Analysis of present generation Graphics Soc	Dr.M.Santhanalakshmi
10	14MV33	K.Divya	Low Power 4-bit Testable Data Converter Pair using 0.18 μ m CMOS Technology	Dr.M.Santhanalakshmi
11	14MV07	U.Shriha	Wavelet Filter Based ECG Detector for Cardiac Pacemaker	Mrs.A.Uma
12	14MV35	N.Prasath	Design of Low Power DADDA multiplier and parallel prefix adders using adiabatic logic	Mrs.A.Uma
13	14MV36	K.Ranjith Kumar	A Novel method to perform on Leakage Power Analysis Attacks	Mrs.A.Uma
14	14MV03	R.Dinesh	Develop a tool to Improve SoC Connectivity	Dr.P.Saravanan
15	14MV31	C.V.Akshaya	Design of Low Area and High speed Multipliers for Image Processing Applications	Dr.U.Saravanakumar
16	14MV02	Dammala Janaki	Development of an automated tool for assertion generation	Mr.K.R.RadhaKrishnan
17	14MV06	K.Priyanka	Efficient Booth Multiplier and Han Carlson Adder based VLSI architecture for LMS Adaptive filter	Mr.K.R.RadhaKrishnan

4.6.3.2. M.E-Communication Systems

S.No.	Roll No.	Name of the student	Title of the project	Name of the Guide
1	14ML01	Anjali Pillai .T	Modified Fast Search Motion Estimation Algorithm for Video Compression	Dr.J. Ramesh
2	14ML02	Baby Nandhini.S	Musical Information Retrieval and Raga Based Classification of Carnatic Music	Dr.K. Gunavathi
3	14ML03	Kommaraju Sandhya Rani	3GPP 34 LTE Host Based Network Simulator	Mr.T.Venkatachalam
4	14ML04	G.Muniappan	Chipless RF ID Tag Using Stepped Impedance Resonator	Dr.V.K. Manoharan
5	14ML05	S. Naveena Sherin	Realization of CCSDS Recommended Standard For Lossless Compression of Hyperspectral Satellite Imagery	Dr.S.Allin Christe
6	14ML06	Sandhana Mahalingam.M	Design of Coupled-Line Coupler And Balanced Antipodal Vivaldi Antenna for Lca Applications	Dr.P.T.Vanathi
7	14ML07	Sharma.S	Real Time Face Authentication Using Deep Neural Networks	Mrs.K.Vasanthamani
8	14ML08	Sivaram.S	Performance Analysis of Clustering Based Routing Protocol for Underground Sensor Networks	Dr.R.Venkateswari
9	14ML09	Vishnnu Praveen.A	Design of Line Impedance Stabilization Network(Lisn) for Cispr-22 Standard Compliant Instruments	Dr.T.Kesavamurthi
10	14ML10	Yamini.T.M	Implementation of Radar Using Gnu Radio And USRP	Dr.S.Mohandass
11	14ML31	S.Gomathi	Energy Efficient Scheme for Cognitive Radio Networks With Transmit Antenna Selection	Dr.G.Umamaheswari
12	14ML32	G.Vimal	Reconfigurable Antenna for Multi Standard Communications	Dr.L.Thulasimani
13	14ML33	R.lyswarya	Human Pose Estimation Using Mixture of Parts	Dr.S.Mohandass
14	14ML81	Chandra sekaran.K	Marginalised Particle Filter for Banana Problem In Long Range Radars	Dr.V.Krishnaveni

4.7. Competitive exam

4.7.1 BE- ECE G1

S.No.	Exam	No. of students appeared	No. of students qualified
1.	CAT	3	3
2.	GRE	2	2
3.	TOEFL	2	2

4.7.2 BE- ECE G2

S. No.	Exam	No. of students appeared	No. of students qualified
1.	GRE	2	2
2.	TOEFL	2	2

4.8. Placement

BE (ECE)

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	DE SHAW, Hyderabad	1	12L127	Madhumitha N	10.0
2.	MYNTRA, Bangalore	1	12L148	Sabbarish R R	8.0
3.	CISCO, Bangalore	2	12L122	Karthikeyan K	8.0
			12L141	Priyanga G	
4.	Musigma, Bangalore	2	12L253	Sushmitha J	12.0
			12L111	Aswanth V	
5.	Thought works, Chennai	1	12L255	Vaishnavi P	6.0
6.	Novell, Bangalore	1	12L152	Selvaganesh PL	6.0
7.	Deloitte	2	12L256	Venkatesan B	5.0
			12L261	Yash Khemka	
8.	Robert Bosch	14	12L227	Arun Prasath M	5.0
			12L230	Nivaethethai A S	
			12L213	Gowtham E	
			12L203	Akshaya G	
			12L121	Karthika S	
			12L257	Vignesh U	
			12L244	Shivani S	
			12L204	Alldreen Dev W P	
			12L250	Suki Priya D	
			12L229	Nandhini G R	
			12L130	Mohammed Ibrahim Nihal	
			12L252	Suruthi Maragatha Ruby A	
9.	Wells fargo	1	12L207	Aujasv Kumar	5.0
10.	Qualcomm	1	12L143	Priyanka S	7.0
11.	Multicore ware,Chennai	1	12L145	Radhakrishnan V R	6.0
12.	Intel,Bangalore	2	12L234	Purushothaman B	6.0
			12L158	Suresh Prabhu P	
13.	Tata Elxsi,Chennai	5	12L221	Kiruthika R A	6.0
			12L243	Sandhiya P	
			12L249	Suguna B	
			13L440	Sugantharaja R	
			12L215	Ilakkiya R	
14.	Mahindra Commviava	1	12L106	Aparna A	6.0
15.	Temonos,Chennai	1	12L146	Rajeshwari S	6.0
16.	Amadeus,Bangalore	1	12L129	Mamtha V	6.0
17.	OFSS,Chennai	1	12L232	Prakash R	4.0
18.	Sapient,Chennai	1	12L239	Ramasubramaniam G	4.0
19.	HP, Bangalore	1	12L154	Siddharth M	6.0
20.	Ford, Chennai	3	12L117	Iswarya S	5.0
			12L157	Sri Vaithiswaari S	
			12L162	Vanmathi Velmurugan	

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
21.	IBM, Bangalore	10	12L102	Aishwarya Lakshmi P	3.0
			12L120	Karthika P	
			12L131	Murugavel M	
			12L147	Ranjitha R	
			12L156	Sowdharpandian M	
			12L165	Vinita N	
			12L211	Gayathri Monika C V	
			12L222	Kousika B	
			12L241	Ramya K	
			12L260	Vipin Chandran K	
22.	TCS, Chennai	10	12L113	Deepika S	5.0
			12L115	Divya Dharshini S	
			12L151	Selva Priya P	
			12L159	SushilKanth K V	
			12L235	Raabith Khan R	
			12L240	Ramesh S	
			12L247	Somesh K	
			13L411	Shangavi J R	
			13L438	Sakthivel S	
			13L442	Tamilarasan R	
23.	WIPRO	4	12L103	Akshay Sekar C	5.0
			12L206	Arul Jothi V	
			12L219	Keerthana R	
			12L238	Rajasekar R	
24.	COGNIZANT	6	12L142	Priyanga K	5.0
			12L217	Jeevanantham N	
			12L224	Lokesh V	
			12L233	Praveen Kumar K	
			13L413	Sridevi S	
			13L431	Anish M	
25.	ACCENTURE, Chennai	14	12L104	Anand Kumar K	6.0
			12L110	Ashik L	
			12L114	Dhinakaran V	
			12L118	Jayabrindhadevi J	
			12L123	Kasi Prabhunath R	
			12L126	Keerthy V	
			12L140	Pavithra S	
			12L144	Punithavathi J	
			12L161	Valarmathi E	
			12L164	Venkata Sridhar P	
			12L208	Bassa Naga Snehitha	
			12L212	Dinesh K S M	
			12L214	Hari Chithra R	
13L433	Manjunath A				
26.	INFOSYS, Bangalore	5	12L112	Crispin A Jebin M	6.0
			12L133	Nandhini G V	

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
27.	IVTL, Chennai	6	12L134	Ranjitha R	6.0
			12L138	Nithyashree P	
			12L254	Syed Inayathulla S	
			12L108	Arun Kumar S	
			12L125	Keerthika R	
			12L132	Mythili S	
12L139	Pavish S				
			12L236	Ragul N	
			12L242	Renuka Devi N	

ME (COMMUNICATION SYSTEMS/WIRELESS COMMUNICATION/VLSI DESIGN)

S.No.	Name of company	No. of students
1.	QUALCOMM, Bangalore	1
2.	TATA ELXSI, Chennai	1
3.	SAMSUNG R&D, Bangalore	2
4.	TCS, Chennai	5
5.	INTEL, Bangalore	1
6.	CTS, Chennai	2
7.	ORACLE, Chennai	1
8.	IBM, Bangalore	2
9.	CATERPILLAR, chennai	1

4.9.1 Industrial training and project

4.9.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	Pallivasal, Power House, Moonar	140, BE ECE	29.01.2016	Automation

4.9.2 Project work / Internship

4.9.2.1 (G1)

S.No	Name of the company	No. of students & course	Period	Area of work
1.	Robert Bosch, Coimbatore	3(UG) 8 th SEM	Dec' 15 – Jun' 16	Implementing IOT on SOC, ECG for Infants, Driver Alert Monitoring
2.	Analog Devices, Bangalore	1(UG) 8th SEM		Enabling Concept to deployment using sigma studio for SHARC based Platforms
3.	Intel, Bangalore	3(UG) 8th SEM		Digital interpolator for all standard high speed, RTL quality check for high speed RO (PC I4), Secure Home
4.	Musigma, Bangalore	1(UG) 8th SEM		Serial Combination Improving Computational efficiency
5.	Mobicip, Bangalore	1(UG) 8th SEM		Scalable content filtering system

S.No	Name of the company	No. of students & course	Period	Area of work
6.	Caterpillar, Chennai	1(UG) 8th SEM	Dec' 15 Jun' 16	Modem test application using redlion
7.	Pricol, Bangalore	2(UG) 8th SEM		3D reconstruction from 2D images, 3D reconstruction from 2Dimages
8.	Samsung, Bangalore	4(UG) 8th SEM		Layout Automation, Design of simulator virtual platform for mobile application, SRAM Compiler verification and validation, design of simulator virtual platform for mobile
9.	Acetech India, Coimbatore	1(UG) 8th SEM		Controlling of slash in liquid transfer path
10.	DE SHAW, Hyderabad	1(UG) 8th SEM		Application usage and performance analysis
11.	Amadeus, Bangalore	1(UG) 8th SEM		Dec' 15 – Jun' 16
12.	Salem Steel Plant, Salem	2(UG) 8th SEM	Transformer Monitoring System, Transformer monitoring system	
13.	Qualcomm, Bangalore	1(UG) 8th SEM	Improved power methodology for camera core	
14.	Multicore ware, Bangalore	1(UG) 8th SEM	Assembly Optimization of X-265 for ARM Processor	
15.	Temonos, Chennai	1(UG) 8th SEM	Smart Search engine	
16.	MYNTRA, Bangalore	1(UG) 8th SEM	Customer Insight Platform	
17.	Novell, Bangalore	1(UG) 8th SEM	Novell Access Manager	
18.	Kaar Technologies, Chennai	1(UG) 8th SEM	Cloud Server Management and Monitoring using Nagios Core	
19.	Enterprise IT Solutions, Coimbatore	1(UG) 8th SEM	Novitate Tracker	
20.	Caliba Embedded Technologies,	1(UG) 8th SEM	Enhancement of communication IP Design	

4.9.2.2 (G2)

S.No.	Name of the company	No. of students & course	Period	Area of Work
1	I2 Software Limited Tech Solutions Pvt Limited, Coimbatore	4(UG) 8 th SEM	Dec' 15 Jun' 16	Facial recognition through hull point analysis using qualcom SDK
2	Steps knowledge services, Coimbatore	4(UG) 8th SEM		Data acquisition and control using IoT
3	Robert bosch engineering and business solutions, Coimbatore	1(UG) 8th SEM		Driver drowsiness detection
4		1(UG) 8th SEM		Open source test automation framework
5	Pricol limited, Coimbatore	1(UG) 8th SEM		Standardisation of PCB in analog hour RPM meter
6	GVK, Coimbatore	1(UG) 8th SEM	Dec' 15 Jun' 16	Analysis of financial model using SAP

S.No.	Name of the company	No. of students & course	Period	Area of Work
7	Nielitiste, Coimbatore	1(UG) 8th SEM		Multipurpose bio inspired underwater drone for monitoring and security
8	Math Technologies, Coimbatore	2(UG) 8th SEM		Intelligent courier mailbox system
9		4(UG) 8th SEM		Iris recognition by using FPGA image processing
10	Karsan Technologies, Chennai	1(UG) 8th SEM		Design and testing of IR blaster
11	Robert bosch engineering and business solutions, Coimbatore	2(UG) 8th SEM	Dec'15- Jun' 16	Infant care system
12		3(UG) 8th SEM		Design and development of next generation logic controller for machine automation using arm cortex a8
13		4(UG) 8th SEM		Milk analyzer using embedded system in dairy farmers
14	Wipro technologies, Bangalore	2(UG) 8th SEM		
15	Bharthi Airtel ltd, Coimbatore	2(UG) 8th SEM		Zero touch for increasing SNR and reducing time
16		3(UG) 8th SEM		
17	I2 Software Limited Tech Solutions Pvt Limited, Coimbatore	4(UG) 8th SEM	Dec'15- Jun' 16	Yoga posture modelling
				Fleet management
18	Robert bosch engineering and business solutions, Coimbatore	2(UG) 8th SEM		Alternate telltale design for audi a and Q series
19	Robert bosch engineering and business solutions	1(UG) 8th SEM		Can protocol based autosar communication stack
20	Sakthi auto components, Coimbatore	1(UG) 8th SEM		RF based wireless pressure indicator
21	Intel, Bangalore	1(UG) 8th SEM	Dec' 15- Jun' 16	Custom ETL solution
22	Vodafone, Coimbatore	1(UG) 8th SEM		Network performance enchacement using VLAN techniques
23	Juniper networks, Bangalore	1(UG) 8th SEM		Network security management-SRX scaling and performance automation
24		1(UG) 8th SEM		Release protocol redesign
25	Pricol limited, Coimbatore	2(UG) 8th SEM		Automotive regulator rectifier unit and measurement of vibrant and impact using accelerometer
26	Cri pumps, Coimbatore	2(UG) 8th SEM	Dec' 15 - Jun' 16	Advanced planning and procurement system
27	Samsung research and development institute, Bangalore	2(UG) 8th SEM	Dec' 15- Jun' 16	Simpulator virtual platform
28	Robert bosch engineering and business solutions,	1(UG) 8th SEM		Intravehicle communication and information handling in engine

S.No.	Name of the company	No. of students & course	Period	Area of Work
29	Coimbatore	2(UG) 8th SEM	Dec' 15- Jun' 16	Integrated test suite
30	Caterpillar india pvt limited, Chennai	1(UG) 8th SEM		Software integration, test and release for machine engine applications
31	Mu sigma business solutions private ltd, Bangalore	1(UG) 8th SEM		Model risk management (model validation and model monitoring)
32		4(UG) 8th SEM		Removal of high density impulse noise through non linear filter
33	Thought works technologies india pvt ltd, Chennai	1(UG) 8th SEM		Website development for the online sale of customized bikes
34	Salzer electronics, Coimbatore	2(UG) 8th SEM		Energy management system based on microcontroller 8051 and study of manufacturing technology
35	Titan innovation hub, Chennai	1(UG) 8th SEM		Intelligent lens thickness measurement using opencv

4.10. PSG Tech students pursuing higher studies

S.No	Name of the Student	Degree pursuing	University
1.	L.Nisanthini	MBA	PSG IM

4.11. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1983	27	-	1992	44	6	2001	52	14	2010	102	37
1984	67	-	1993	43	10	2002	51	29	2011	133	36
1985	39	-	1994	36	18	2003	79	30	2012	132	33
1986	47	-	1995	45	12	2004	117	25	2013	137	53
1987	40	-	1996	41	7	2005	117	29	2014	145	49
1988	29	-	1997	34	10	2006	97	32	2015	141	50
1989	59	-	1998	50	13	2007	110	37	2016	138	45
1990	51	-	1999	57	11	2008	97	33			
1991	46	-	2000	60	15	2009	109	31			

5. SUMMARY

S. No.	Activity	No.
1.	National conferences conducted	12
2.	Workshops conducted	21
3.	Sponsored research projects ongoing	8
4.	Sponsored research projects completed till date	15
5.	Scholars pursuing doctoral research	58
6.	Total no. of doctorates produced till date	56
7.	Papers published in international journals	13

8.	Papers published in national journals		6
9.	Papers presented in national conferences		3
10.	No. of students passed out year 2016	UG	138
		PG	45
11	No. of students passed out till date	UG	2572
		PG	665

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS
ENGINEERING**

ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering is one of the two disciplines that were started since the inception of the college. New courses were introduced subsequently and the existing ones were restructured to reflect the state of the art. The following courses were started in the department in the respective years mentioned as below: 1951 BE (Electrical Engineering), 1958 ME (Electrical Engineering), 1962 ME (Power Systems), 1968 ME (Applied Electronics and Servomechanism), 1968 Part Time ME (Applied Electronics), 1971 ME (Electrical Machines), 1971 Part Time ME (Electrical Machines), 1971 ME (Control Systems), 1978 Part Time BE (Electrical Engineering), 1983 Sandwich BE (Electrical and Electronics Engineering), 1998 ME (Power Electronics and Drives), 2009 ME (Embedded and Real-Time Systems).

The department is a recognized Quality Improvement Programme (QIP) Centre for Post Graduate and Doctoral Programmes. The department has well qualified faculty and excellent facilities for research. The major areas of research currently being carried out include Energy Efficient Inverter-fed AC Drives, Power Electronics and Drives, Linear Control Systems, Reliability Engineering, Optimization Techniques, Data Mining, Biomedical Engineering, Digital Signal Processing, Image Segmentation, Soft Computing Techniques, CDMA Cellular System and VLSI Design Automation. So far, 64 Ph.Ds have been awarded and presently 57 students have registered for Ph.D. The department has well-established laboratories for Electrical Machines, Power Electronics, Analog Electronics, Digital Electronics, Control and Instrumentation, and Computers. There are separate laboratories for PG courses in Applied Electronics, Power Electronics & Drives and Embedded & Real-Time Systems. To add to the credit of EEE Department, two centers of excellence have been established, namely, "PSG-LAPP Centre for Excellence in Cable Technology" and "PSG-L&T Centre for Excellence in LV Switch gear" during the year 2005 and Centre for "Renewable Energy" during the year 2011. In addition to this, one more centre namely, Audio Processing Centre, established in 2006 with the sponsorship from Armament Research Board (ARMREB) of Defense Research & Development Organization (DRDO) India, provides an ideal platform to conduct research on knowledge discovery in audio signals, including speech, music, and other environmental sounds.

Denmark based company Danfoss India has tied up with PSG College of Technology, Coimbatore and as a result "PSG-Danfoss Centre for Climate and Energy" was established in the year 2013. Major equipments in the CoE include RC Components, Heating Solution Components, PCA Components, IGBT's Dismantling Kit, Practical Working Drive, Test Beds, Application Kits, and VLT Drives. The centre comes with an e-learning portal and also offers online training programs directly from Danfoss. The department in association with PRO SUN Energy Pvt., Ltd., Coimbatore on 10th March 2016 has inaugurated a Centre for Excellence in Solar PV Systems. The centre focuses broadly on education and research in the area of Solar Photovoltaic.

Major areas of research

- Power Quality
- Low Power VLSI
- VLSI Design Automation
- Digital Signal Processing
- Control Systems
- Power System
- Energy Efficient Electrical Drives
- Renewable Energy Systems
- Wearable Electronics
- Smart Grid

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr. P. Navaneethan Ph.D Professor & Head	pnn@eee.psgtech.ac.in	1991	Computer Architecture, Computer Networks, and Multilingual Computing
2	Prof.K.Joseph Mathew ME Associate Professor	kjm@eee.psgtech.ac.in	1980	Applied Electronics, Microprocessors, and Digital Systems Design
3	Dr.R.Neelaveni Ph.D Associate Professor	rnv@eee.psgtech.ac.in	1990	Applied Electronics, VLSI, Computer Networks, and Biomedical Engineering
4	Dr.M.C.Bhuvaneswari Ph.D Associate Professor	mcb@eee.psgtech.ac.in	1990	VLSI Design, Digital Systems Design, and Genetic Algorithms
5	Dr.S.Sumathi Ph.D Associate Professor	ssi@eee.psgtech.ac.in	1990	Applied Electronics, Neural Networks, and Data Mining
6	Dr.Ila Vennila Ph.D Associate Professor	iven@eee.psgtech.ac.in	1989	Electronic Circuits, Communication Systems, Digital Signal Processing, and Digital Image Processing
7	Dr.J. Kanakaraj Ph.D Associate Professor	jkr@eee.psgtech.ac.in	1993	Electrical Machines, Instrumentation, Control Systems, and Measurements
8	Dr.B.Vinod Ph.D Associate Professor	bvin@eee.psgtech.ac.in	1999	Sensors & Controls, Power Electronics & Drives, and Automation and Control
9	Ms.C.Amuthavalli ME Associate Professor	cav@eee.psgtech.ac.in	1991	Electrical Machines, Power systems, Applied Electronics, and Computer Networks
10	Ms.A.Sumathi ME Associate Professor	asi@eee.psgtech.ac.in	1994	Electrical Machines, and Power Systems
11	Mr. S.Kasiramanathan ME Associate Professor	skr@eee.psgtech.ac.in	1994	Electrical machines, and Power Systems
12	Mr.R.Krishnakumar ME Assistant Professor(Sr.Gr)	rkk@eee.psgtech.ac.in	2000	Electrical machines, and Power Systems
13	Mr.A.Natarajan ME Assistant Professor(Sr.Gr)	ann@eee.psgtech.ac.in	2002	Applied Electronics, and VLSI Design & Testing
14	Mr.T.Bogaraj M.Tech Assistant Professor(Sr.Gr)	tbr@eee.psgtech.ac.in	2003	Process Control & Instrumentation, Digital Control Systems
15	Ms.A.Gunasundari ME Assistant Professor	ags@eee.psgtech.ac.in	2004	Applied Electronics, VLSI Design & Testing
16	Mr.S.Karthikeyan ME Assistant Professor	skk@eee.psgtech.ac.in	2005	Power Systems
17	Ms.P.Sweety Jose ME Assistant Professor	psj@eee.psgtech.ac.in	2005	Power Electronics and Drives
18	Dr.L.Ashok Kumar Ph.D., MBA, C.Engr. Professor	lak@eee.psgtech.ac.in	2000	Renewable Energy Systems, Wearable Electronics and Power Electronics & Drives

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
19	Mr. J. Chelladurai M.Tech Assistant Professor (Sr.G)	jcd@eee.psgtech.ac.in	2008	Power Systems, FACTS Controllers, and Power Electronics & Electronic Devices
20	Mr. S. Ramesh ME Assistant Professor (Sr.G)	srm@eee.psgtech.ac.in	2008	Power system Optimization, and Power System Stability
21	Mr. M.Anand ME Assistant Professor (Sr.G)	and@eee.psgtech.ac.in	2009	Power Electronics & Drives
22	Mr.P.Sivakumar ME Assistant Professor (Sr.G)	psk@eee.psgtech.ac.in	2010	Embedded System Technologies
23	Mr.M.Kathiresh ME Assistant Professor	mkh@eee.psgtech.ac.in	2012	Embedded & Real-Time Systems
24	Ms. R. Divya ME Assistant Professor	rdv@eee.psgtech.ac.in	2013	Embedded System Technologies
25	Dr.M.M.Rajan Singaravel PhD Assistant Professor	mmr@eee.psgtech.ac.in	2016	Power Electronics for Renewable Energy, Microgrid, and Distributed Generators
26	Ms. S. Abirami ME Assistant Professor	sai@eee.psgtech.ac.in	2012	Applied Electronics
27	Mr. S. Karthik ME Assistant Professor	svk@eee.psgtech.ac.in	2012	Power Electronics & Drives
28	Ms. B. Nishanthi ME Assistant Professor	bni@eee.psgtech.ac.in	2012	Power Electronics & Drives
39	Mr.M. S. Raja Ganesh ME Assistant Professor	msr@eee.psgtech.ac.in	2012	Power System Optimization
30	Ms.B. Sathya ME Assistant Professor	bsa@eee.psgtech.ac.in	2012	Control Systems
31	Ms.S. Suja ME Assistant Professor	ssa@eee.psgtech.ac.in	2012	Power Electronics & Drives
32	Mr. A.Angamuthu ME Assistant Professor	aam@eee.psgtech.ac.in	2012	Power Electronics & Drives
33	Mr.R. T. Karthick ME Assistant Professor	rtk@eee.psgtech.ac.in	2012	Power Electronics & Drives
34	Ms.K. Latha Maheswari ME Assistant Professor	klm@eee.psgtech.ac.in	2012	High Voltage Engineering
35	Mr.A.Mahaboob Subahani ME Assistant Professor	ams@eee.psgtech.ac.in	2012	Power Electronics & Drives
36	Ms.S. Deepthi ME Assistant Professor	sdp@eee.psgtech.ac.in	2013	Applied Electronics
37	Ms.K. S. Mathivani ME Assistant Professor	ksm@eee.psgtech.ac.in	2013	Power Electronics
38	Mr.N. Sampath Raja ME Assistant Professor	nsr@eee.psgtech.ac.in	2013	Applied Electronics

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mr. K Joseph Mathew	Ph.D	2003, Ongoing
2	Mr. A. Natarajan	Ph.D	2009, Ongoing
3	Mr. T. Bogaraj	Ph.D	2009, Ongoing
4	Mr. J. Chelladurai	Ph.D	2009, Ongoing
5	Ms. A.Gunasundari	Ph.D	2011, Ongoing
6	Ms. P.Sweety Jose	Ph.D	2011, Ongoing
7	Mr.P.Sivakumar	Ph.D	2011, Ongoing
8	Mr.M.Anand	Ph.D	2012, Ongoing
9	Mr. S. Karthikeyan	Ph.D	2014, Ongoing
10	Mr. M. Kathires	Ph.D	2014, Ongoing
11	Mr.S.Karthik	Ph.D	2014, Ongoing
12	Ms. R.Divya	Ph.D	2015, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of Faculty	Title of Programme	Collaborating agency(if any)	Period
1.	Dr. R. Neelaveni Mr. M. Kathires	Workshop for EEE students on WEB BENCH	STEPS Knowledge Services & TI, Coimbatore	17.06.2015
2.	Dr. L. Ashok Kumar, Mr. A. Angamuthu Mr. R. T. Karthick Ms. B. Sathya	National Workshop on Energy Auditing and Conservation Techniques	-	03.07.2015 – 04.07.2015
3.	Dr.M. Sundaram Mr. M. Anand Mrs. R. Divya	Three days National Workshop on FPGA Based Control ff Permanent Magnet & Reluctance Motors for Energy Efficient Industrial Drives	Entuple Technologies, Bangalore	06.08.2015 08.08.2015
4.	Dr. L.Ashok Kumar Mr. J. Chelladurai Ms.K.Latha Maheswari	15EK07/12EK15-Power Electronics in More Electric Aircrafts	-	12.08.2015- 26.08.2015
5.	Dr. L Ashok Kumar	One Credit Course on Power Electronics in More Electric Aircraft for UG & PG Electrical Science Students	Honewell, Bangalore	10.09.2016 & 26.09.2015
6.	Dr.J.Kanakaraj, Mr.S.Karthik and Ms.K.Latha Maheswari	Workshop on Modelling and Simulation of Power Systems in Microgrid Environment	-	14.10.2015
7.	Dr. L. Ashok Kumar, Mr. P. Sivakumar Mr. A. Angamuthu Ms. K. Latha Maheswari	National Level Workshop on Model based Development of Mechatronic Controls with dSPACE	-	16.10.2015- 17.10.2015
8.	Dr. R. Neelaveni Mr. M. Kathires	Workshop for EEE students on Low Power Microcontrollers	STEPS knowledge Services & TI, Coimbatore	05.03.2016 – 06.03.2016

S.No.	Name of Faculty	Title of Programme	Collaborating agency(if any)	Period
9.	Dr. L. Ashok Kumar Mr. J. Chelladurai Ms.K. Latha Mahewari Ms. K.S.Mathivani	National Level Workshop on LV Switchgear and Reactive Power Management Techniques	Institution of Engineers, India & Yokogawa, Bangalore	22.04.2016 – 23.04.2016

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of Faculty	Programme	Organizer	Period
1.	Ms. K. Latha Maheswari	TEQIP Sponsored Workshop on “MEMS, Its CAD Tools and Smart Structures”	National Institute of Technology, Tiruchirappalli	05.01.2015 - 09.01.2015
2.	Ms.R.Divya	Workshop on Electrical safety and Practices	Dept. of EEE, PSG CT, Coimbatore	23.01.2015 - 24.01.2015
3.	Ms.R.Divya	Workshop on Parallel Programming - Basics” by Calligo Technologies	Department of CSE, PSG CT, Coimbatore	26.06.2015
4.	Dr. L Ashok Kumar	Seminar on Solar Installations, Economics, Business Opportunities and New Trends in Solar Energy systems	PSG Institute of Advanced Studies, Coimbatore in collaboration with Colleges of Nanoscale Science and Engineering Albany, USA	11.08. 2015 - 12.08.2015
5.	Ms.R.Divya	Workshop on High performance computing	CDAC and Intel	12.08.2015
6.	Ms.P.Sweety Jose	Foundation skills in Integrated Product Development	PSG CT (TEQIP), Coimbatore	23.11.2015 - 27.11.2015
7.	Dr. L Ashok Kumar	2nd International Conference on Advances in Functional Smart & Innovative Textiles	PSG Institute of Advanced Studies, Coimbatore	10.12.2015- 12.12.2015
8.	Dr. L Ashok Kumar	IEEE International Conference, Preconference workshop on Smart Grid	MS Ramaiah Institute of Technology, Bangalore	21.12.2015
9.	Ms. K. Latha Maheswari	Tutorial Programme On Smart Grid And Power Quality (SGPQ)	CPRI, Bangalore	03.03.2016 – 04.03.2016
10.	Dr. L. Ashok Kumar	BSI certified ISO 50001:2008 Lead Auditor Certification course	BSI, Panaji, Goa	14.04.2016 – 18.04.2016
11.	Ms. S. Deepthi	TEQIP-II Sponsored Faculty Development Programme on “Emerging Research Trends in Networking using GENI Test Beds: A Virtual Lab approach”	Department of ECE, PSG CT, Coimbatore	02.05.2016 – 08.05.2016

S.No.	Name of Faculty	Programme	Organizer	Period
12.	Mr. S. Karthik Mr. A. Mahaboob Subahani	Short Term Course Applications of Power Electronics to Renewable Energy	NIT Goa under the aegis of NaMPET – (CDAC-Trivandrum)	12.5.2016 - 14.5.2016
13.	Dr. L. Ashok Kumar	Residential Programme on Leadership Enhancement for Professors	Coimbatore Productivity Council, Coimbatore	24.05.2016 - 25.05.2016
14.	Ms. S. Deepthi	TEQIP-II Sponsored Faculty Development Programme on “Computer Networks	Department of CSE, PSG CT, Coimbatore	23.05.2016 - 28.05.2016

2.4. Special lecture delivered

S.No.	Name of Faculty	Title of Programme	Topic	Organizer	Date
1.	Dr. L Ashok Kumar	TEQIP-II CoE-AER Sponsored Faculty Development Programme on The Rise of Renewable - Integration Challenges and Opportunities	Challenges in selection of Power converters for RES	Dept. of EEE, GCT, Coimbatore	16.06.2015
2.	Dr. L Ashok Kumar	National Level Workshop on Energy Auditing and Conservation Techniques	Energy Auditing Methodology and Implication of Renewable Energy Systems	Dept. of EEE, GCT, Coimbatore	03.07.2015- 04.07. 2015
3.	Dr. L Ashok Kumar	TNSCST sponsored Three- days programme on 'Science and Technology Capacity Building for Industrial Needs	Time Management and Team Building for Budding Engineers	Angel College of Engineering and Technology, Tirupur	09.07.2015
4.	Dr. L Ashok Kumar	MNRE sponsored National Seminar on Emerging Trends in Solar and Energy Storage Technologies	Emerging Trends in Solar PV Technologies	Dept. of EEE, Muthyammal College of Engineering, Rasipuram	10.07.2015
5.	Dr. L Ashok Kumar	Department Association Function	Green Marketing	Dept of Commerce at Dr.NGP College of Arts&Science Coimbatore	16.07.2015
6.	Dr. L Ashok Kumar	Dept. of EEE Association Function	Energy Auditing Methodology	Dr. NGP Institute of Technology, Coimbatore	31.07.2015
7.	Dr. L Ashok Kumar	National Conference on Alternate Energy Systems	Renewable Energy Systems	Dept. of EEE, SNS college of Technology, Coimbatore	13.08.2015

S.No.	Name of Faculty	Title of Programme	Topic	Organizer	Date
8.	Mr.M.Kathiresh	Embedded Systems in Automobiles	National level workshop on "Embedded Systems in Automobiles"	SAE INDIA and Sri Krishna College of Engineering and Technology, Coimbatore	29.08.2015
9.	Dr. L Ashok Kumar	National Seminar on Biomedical Systems	Embedded Application in Biomedical Systems	Dept. of Biomedical Engineering, Sri Ramakrishna College of Engineering, Coimbatore	12.09.2015
10.	Dr. L Ashok Kumar	BLEND2015 – TechTalk	Innovations in Wearable Electronics	Robert Bosch Engineering Solutions Ltd., Coimbatore	19.10.2015
11.	Dr. L Ashok Kumar	AICTE-SDP Technical Textiles - Manufacturing, Testing, Design Analysis of Products and Their Applications	Latest Advancements in Smart Textiles	Dept. of Textile Technology, Kumaraguru College of Technology, Coimbatore	19.11.2015
12.	Dr. L Ashok Kumar	AICTE sponsored QIP STC on Embedded Systems Design	Implication of Embedded System in RES	Dept. of EEE, CIT, Coimbatore	26.11.2015
13.	Ms.K. Latha Maheswari	Workshop on Application of MATLAB for Electrical Engineering	Application of MATLAB for Electrical Engg.	EEE Dept., PSG College of Technology	12.12.2015
14.	Dr. L Ashok Kumar	Department Association function	Implication of Wearable Electronics	Faculty of Engineering, Avanashilingam University for Women, Coimbatore	28.01.2016
15.	Mr.M.Kathiresh	Embedded System Design	Invited Talk on Embedded System Design	Dept. of Electronics & Instrumentation Engineering, Kumaraguru College of Technology, Coimbatore	29.01.2016
16.	Dr. L Ashok Kumar	DBT sponsored Seminar on Advances in Biofuel Technologies for a Sustainable Solution to Energy Crisis	First Generation Biofuel Technologies	Dept. of EEE, Kongu Engg., College, Erode	25.02.2016

S.No.	Name of Faculty	Title of Programme	Topic	Organizer	Date
17.	Dr. L Ashok Kumar	EEE Association Function	Basics and Latest innovations in Electronics	Nandha Engineering College, Erode	29.02.2016
18.	Mr.M.Kathiresh	Embedded Software	Invited Talk on Embedded Software Development	Department of Electronics and Instrumentation Engineering, Dr. Mahalingam College of Engg. & Technology, Pollachi	17.02.2016
19.	Mr.M.Kathiresh	Embedded Systems in Automobiles	National level student convention AUTOZINIOS	SAE INDIA SKCET Collegiate Club Sri Krishna College of Engineering and Technology, Coimbatore	25.02.2016
20.	Dr. L Ashok Kumar	Dept. Association Function	Control Systems	Akshaya College of Engineering & Technology, Coimbatore	03.03.2016
21.	Dr. L Ashok Kumar	National Level Workshop on "Solar and Wind Energy Conversion Systems-Hands-on Training" under TEQIP – II , Center of Excellence on Alternate Energy Research	Integration of Small Wind Turbine Systems in Microgrid	Dept. of EEE, GCT, Coimbatore	12.03.2016
22.	Dr. L Ashok Kumar	EEE Department Association Function	Overview of FACTS devices and its Recent Developments	Sri Eshwar College of Engineering, Coimbatore	15.03.2016

2.5.Award won by faculty

S.No.	Name of faculty	Nature of award	Awarded by	Date
1	Dr.L.Ashok Kumar	Outstanding Scientist Award 2015	Venus International Foundation, Chennai	19.12.2015
2		Distinguished Educator Award 2015	NFED, Coimbatore	05.06.2015
3	Ms.P.Sweety Jose	Dakshinamoorthy Award for Teaching Excellence	PSG CT, Coimbatore	2015-2016

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in (lakhs)
1.	Power Converters Lab	Three Phase Auto Transformer	0.27
2.	Power Converters Lab	3 Phase DBR + 3PH IBI+C 3 Phase Diode Rectifier + Brave Chopper+3 Phase IGBT Based Inverter	0.77
3.	DST-SERI Project	Oil Meter Kent Size 15 mm	0.35
4.	DST-SERI Project	Three Units of PTC	1.14
5.	AICTE Project	DC-DC Converter + Chopper	0.73
6.	DST-SERI Project	Differential Pressure Transmitter	0.38
7.	AICTE Project	Slipring Induction Motor	0.27
8.	AICTE Project	Permanent Magnet Synchronous Generator	0.29
9.	AICTE Project	Aluminium Mounting Structure for 22 numbers of 240 WP Emmvee Panels	0.30
10.	AICTE Project	Aluminium Mounting Structure for 50 mms of 95 WP Qcell thin film panels	0.50
11.	DST-SERI Project	Differential Pressure Transmitter	0.38
12.	Electrical Machines Lab	DC rectifier Power Source make BEM	1.70
13.	AICTE Project	Flexmax MPPT 60A	0.82
14.	DST-SERI Project	Air to Air Heat Exchanger	1.82
15.	DST-SERI Project	Oil to Air Heat Exchanger	1.70
16.	TEQIP II	Fluke Model Three Phase High precision power analyser	9.79
17.	AICTE Project	Signal Conditioning Unit for Wind Turbine Trainer	0.67
18.	AICTE Project	Megatech Agile Signal Conditioning & Control Card	0.92
19.	AICTE Project	Wind Emulator signal Conditioning Unit	0.40
20.	DST-SERI Project	Blower Activated Air Dryer	1.69

3.2. Sponsored research activities

S.No.	Investigators	Project title	Sponsoring agency	Year of Commencement & status	Duration	Grant in (lakhs)
1	Dr.L.Ashok Kumar	Solar Energy based Desiccant loop Air-Conditioning	DST-SERI, New Delhi	2014 –2016	3 years	55.0
2	Dr. L. Ashok Kumar	Development of Interactive Hydraulic Activated Device for Chronic Post Stroke Therapy	DST-SYST, New Delhi	2015	2 years	19.19
3	Dr. L. Ashok Kumar Mr.M. Alagappan	Design & Development of Wireless Embedded Microcontroller Based Portable Nano Scale Toxic Gas Sensor System	UGC-MRP, New Delhi	2015	2 years	6.88

3.2.1. Sponsored research activities – Abstract

Solar Energy based Desiccant Loop Air-Conditioning

Enabling the capture of solar energy in a distributed manner on industrial and domestic rooftops is vital in realizing the goals of the National Solar mission. For this, the solar collectors have to be roof mountable, non-tracking type with low cost. Air-conditioning is unaffordable for a significant percentage of the population due to high capital and operating costs. A low cost rudimentary system without the sophistications of a conventional vapour compression air-conditioner is sufficient to meet the very basic needs of a large population of India. A Desiccant Cooling System (DCS) operated with solar energy would meet this goal as the capital cost of the proposed collector is expected to be lower than the conventional collectors by 25% and the operation cost is expected to be lower by 50%. Therefore the goals of this proposal are to Develop a Parabolic Fresnel Collector which is equivalent in efficiency to a parabolic trough reflector (PTR), that is roof mountable, and which enable widespread adoption of solar energy due to lower capital cost (less by 25%), without curved mirrors and full reflector tracking, thereby avoiding heavy tracking mechanisms and flexible joints, and improved floor packing and compact size compared to Linear Fresnel Systems.

Design a solar energy based Desiccant Cooling System using solid and liquid desiccants to meet very basic air conditioning needs of the population that is low in operating costs. The boundary conditions under which a desiccant cooling system would work effectively in India, needs to be experimentally established. This will require establishment of a test loop for investigating Desiccant Cooling systems that can quantify the effectiveness of various solid and liquid desiccants with modified surface properties, the effect of mixing return air and fresh air before de-humidification, the effect of adsorbent reactivation temperature etc. As mentioned earlier, the lack of participation from the industry has been the biggest stumbling block in having these developments make the transition from the laboratory to the industry. Only when taken to the industry for commercial applications will the real engineering, manufacturing, cost, material challenges come forth. Therefore, this project will have an industrial partner, Trident Pneumatics Ltd, involved from the beginning. The intent is to develop a commercially viable advanced absorption and adsorption cycles based on renewable energy and with the participation of a Trident Pneumatics Ltd, which take the product to market.

The Parabolic Fresnel collector is a novel development by the investigating team and is a major deliverable of this project. The hybridization of desiccant loops with solar energy for a distributed roof top model is the other major deliverable. Solar energy is abundant in the summer when the need for air-conditioning is the highest. This match of demand with supply and the hybridization of solar energy with another source that is available during nights/cloudy days and a DCS offers a distributed air-conditioning model, for applications such as (1) maintenance of cold chain for preservation of vegetables and increase in agricultural productivity (2) preservation of medicines and vaccines in primary health centers and pharmaceutical industries (3) Cooling of data centers and (4) Space cooling for domestic use or as a pre-cooler for industrial refrigeration.

Development of Interactive Hydraulic Activated Device for Chronic Post Stroke Therapy

The project aims at developing an assistive device for patients undergoing rehabilitation for recovery from spasticity of wrist and fingers. Patients who survive stroke will be laid back with motor disabilities and paralysis. As the hand and arm do not have treatment instantly after a stroke, it will lose its power and muscle control, bringing about a hook like appearance and loss of capacity. The objective of the project is to design and develop a hydraulic based sensor actuated hand to hand variable resistance rehabilitation device for hand and forearm. The proposed rehabilitation device can be controlled by hydraulic actuators and position sensors in conjunction with a microcontroller. This device will follow the kinematics of the hand and forearm and could stimulate the corresponding muscles in the body to keep practicing in the rehabilitation.

A hydraulic interface will be implemented in conjunction with the control software for microcontroller unit. The rehabilitation device would be used on stroke patients to test and validate the movement of the muscle and neural activities using EMG and EEG signals. Frequently used hand movements in daily living are the main goals during the rehabilitation. Hydraulic based rehabilitative training is a considerably new technology that shows great potential for application in the field of neuro rehabilitation as it has several advantages like e.g., motivation, adaptability, data collection, and the ability to provide intensive individualized repetitive practice. The hydraulic rehabilitation system facilitates and actuates flexion/extension movements of the hand in conjunction with supination/pronation of the shoulder, elbow, wrist and forearm. These movements are synergistic and important to functional tasks such as eating, dressing and grooming. The retraining device focuses on these coordinated movements which is highly desirable because regaining these core skills a highly desirable in the rehabilitation of individuals post stroke.

Design and Development of wireless Embedded Microcontroller based portable nano scale toxic gas sensor system

Over the past five decades, there has been an increasing demand for inexpensive, accurate, portable and reliable gas sensors that can discriminate between very low concentrations of analytes. Typically, gases of interest include CO, NO, NO₂, NH₄, SO₂, CO₂, CH₄ and other hydrocarbons. These gases if present beyond a certain concentration can be harmful to human health. Historically, gas sensors were first primarily used in coal mines where accurate monitoring of hazardous gases has to be continually carried out gas sensors were also beginning to appear in chemical industry, in environmental pollution monitoring units and in human health sectors. Some of the other important applications of gas sensors include the analysis of organic vapours, such as toluene, methanol and benzene, for laboratory and industrial safety and, breath analysis for traffic safety and disease diagnosis. An electronic nose, based on arrays of gas sensors for testing the smell of food, perfumes and artificial fragrances etc., is one of the recent embodiments of gas sensing that has received much attention owing to its enhanced analytical power.

The performance of a gas sensor is foremost measured by its lower limit of detection (LOD) and by its selectivity. The gas sensor with the lowest LOD affords the detection of the lowest level of an analyte and a highly selective gas sensor enables the detection of very minute amounts of the desired gas in a mixture of several other gases. Low power consumption, fast response and recovery time, stability (low drift rate) and sensitivity, i.e. the slope of the sensor output versus the analyte concentration, are other important sensor performance characteristics. Universal gas sensor is used for commercial and defense applications. The CNT based gas sensors are still in infant level and such kind of devices / products are not available in the commercial market. Therefore, with respect to the Indian scenario, the proposed work will provide a solution for solving the existing problems related to the toxic gas detection applications.

3.3 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
1.	Ms.Sasikala	Pervasive Computing	Dr.P.Navaneethan Professor & Head Department of EEE PSG CT,Coimbatore	July 2014/In progress
2.	Mr.M.Kathires	Automotive Networking	Dr. R. Neelaveni, Associate Professor, Department of EEE, PSG CT, Coimbatore	Jan 2014/In progress
3.	Mr.T.Subramani	Vision and Image Processing		Jan 2014/In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
4.	Mr. A. Natarajan	VLSI Testing	Dr.M.C.Bhuvanewari Associate Professor Department of EEE PSG CT, Coimbatore	Jan 2009/ Thesis Submitted
5.	Ms. A.Gunasundari	Analog VLSI Testing		Jan 2011/In progress
6.	Ms.M.Shanthi	VLSI		Jan 2011/ In progress
7.	Mr.Thirumoorthy	Control systems	Dr. J.Kanakaraj Associate Professor Department of EEE PSG CT, Coimbatore	Jan 2008/ In progress
8.	Mr.T. Bogaraj	Control Systems		Jan 2009/In progress
9.	Ms. S. Kavitha	Sensor Networks		June 2008/In progress
10.	Mr. T. Kannan	Control Systems		June 2008/In progress
11.	Ms.A.Tamilselvi	Evolutionary algorithmes for Engineering Applications	Dr. S.Sumathi Associate Professor Department of EEE PSG CT, Coimbatore	July 2011/In progress
12.	Ms.B.Shuriya	Datamining		Jan 2013/ In progress
13.	Ms.S.Prithi	Computational Intelligence for Engineering Paradigms		Jan 2013/In progress
14.	Mr.Sangeeth Kumar	Cloud Computing		Jan 2013/ In progress
15.	Mr.C.S.Sunder Ganesh	Soft Computing		Jan 2014/ In progress
16.	Mr.Vinoth Kumar	Soft Computing		2016/ In progress
17.	Mr.S.Saravanan	VLSI		Jan 2012/In progress
18.	Ms.S.Brindha	Authentication System for Computer Networks	Dr. Ila. Vennila, Associate Professor Department of EEE, PSG CT, Coimbatore	Jan 2009/ Completed
19.	Ms.J.Yogapriya	Medical Image Retrieval		Jan 2009/ Completed
20.	Mr.S.Karthik	Smart Grid		Jan 2014/ In progress
21.	Ms. P. Pradeepa	Multi-Modality Imagine		Jan 2009/ In progress
22.	K.Gokila (Full Time)	Wireless Communication		Jan 2013/ In progress
23.	Ms.S.Vidhya Gowri	Medical Image Processing		Jan 2014/ In progress
24.	Ms.B.Nivedetha	Wireless Networks		2016
25.	Mr.Aji Joy	Robotics	Dr.B.Vinod, Associate Professor Dept. of EEE, PSG CT, Coimbatore	July 2008/In Progress
26.	Ms.Sivaranjani	Robotics		June 2012/Inprogress
27.	Mr.J.Chelladurai	Power Electronic Systems		Oct. 2009/In progress
28.	Mr. P.Sivakumar	Automotive Embedded Systems		July 2011/In progress
29.	Ms.B. Bindu	CNC Control System		July 2011/In progress
30.	Mr.M.Anand	Power Electronics & Drives		Jan 2012/In progress
31.	Mr.M.Vasantha kumar	Personal Robotics		July 2012/In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
32.	L.Sabarinathan	Multilevel Inverter for Renewable Energy Systems	Dr.L.Ashok Kumar, Professor Department of EEE, PSG CT, Coimbatore	Jan 2013/In progress
33.	Mr. S. Maheswaran	Harmonic Elimination in Variable Frequency Drive using Optimization Techniques		26.06.2015/ Completed
34.	Ms.K.Prithivi	Converters for Fuel Cells Applications in Hybrid Electric Vehicles		Jan 2013/In progress
35.	Ms.P. Kalaiarasi	Bio Sensor Network for Bio-Medical Systems		Dec 2013/In progress
36.	Mr.S.Karthikeyan	Distributed Generation		Jan 2014/In progress
37.	Mr.Tharan Kumar	Plug-in Hybrid Electric Vehicle		Jan 2014/ In progress
38.	Mr. R.T.Karthick	Hybrid Electric Vehicle		Jan 2014/In progress
39.	Mr.Arun Kumar P.K.	Power Quality Improvement using DVR and UPQC with Fractional PID Controller in Grid Connected Wind Energy Conversion System		Dr.L.Ashok Kumar, Professor Department of EEE, PSG CT, Coimbatore
40.	Ms.Sheeba Babu (Full Time)	Distributed Generation in Smart Grid	Jan 2015/In progress	
41.	Mr.Elan Cheren	Smart Infrastructure for Renewable Energy System in Grid Connected Applications	Jan 2015/ In progress	
42.	Mr.Raguram A. (Full Time)	Characterization of Power Optimizer Potential to increase energy capture in PV systems Operating under non uniform conditions	Jan 2015/ In progress	
43.	K.Vishnumoorthy	Design of Electrical Machines	Dr.L.Ashok Kumar, Professor Department of EEE, PSG CT, Coimbatore	July 2016/ In progress
44.	Ms.Ria George	Wearable Electronics		July 2016/ In progress
45.	Mr. C.L.Vasu	Automated Meter Reading	Dr.R.Jayaparvathi, Associate Professor CIT, Coimbatore	Jan 2009/ In progress
46.	Ms.P.Sweety Jose	Power Electronics and Drives	Dr.M.Geetha, Associate Professor, Vellore Institute of Technology, Vellore	Jan 2011/ In progress

3.3.1 Doctoral research – Abstract

Development of Multi Factor Authentication using Multimodal Biometrics and Quick Response Codes with Improved Security and Accuracy

Supervisor: Dr. Ila. Vennila

Candidate: S.Brindha

Authentication is the process of ensuring and confirming user's identity. In this research, authentication based on possession and biometrics have been investigated and five schemes using smart card, QR code, encrypted QR code, sclera vein, and multimodal sclera vein and finger vein have been developed. The iris image stored in the smart card is encrypted using chaotic encryption and two steganography methods, scattered LSB embedding and repeated embedding CRC steganography are used to hide the iris image in the facial image of the user. As the mobile devices are used widely, an authentication scheme is proposed which makes use of cancellable iris template embedded in QR codes. The proposed scheme converts the iris template into binary information and embeds the cancellable iris code in QR code without the need for watermarking. An improved authentication scheme OTP-EQR has been developed. The novelty of this dissertation is the development of authentication scheme using multimodal biometrics sclera and finger vein. Feature level fusion of finger vein and sclera vein with reduced feature set using neighbourhood elimination technique has been developed. The performance of all the five developed authentication schemes shows improvement in security and accuracy.

Development of Optimized Texture Features using Bio-Inspired Meta Heuristic and Machine Learning Algorithms for Efficient Retrieval of Medical Images

Supervisor: Dr. Ila. Vennila

Candidate: J.Yogapriya

Content Based Medical Image Retrieval (CBMIR) has a high impact on the diagnosis, decision-making, research, and education. In this research, the image retrieval is performed using Feature extraction, Optimized feature selection, Classification of optimized features, and Similarity measurements. This type of CBMIR is called Feature Optimized Classification Similarity (FOCS) framework. The contributions made in this thesis are as follows:

- Various combinations of texture features using Gray Level Co-Occurrence Matrix (GLCM), Tamura Feature (TF), Gabor Filter (GF), and Local Binary Pattern (LBP) are applied for improving the feature extraction and a new Local Octal Pattern (LOP) is derived.
- The high dimensionality of the texture features are reduced by
 - Fuzzy based Particle Swarm Optimization (FPSO) is proposed for feature selection of GLCM and TF
 - Hybridization of FPSO with Ant Colony Optimization (FPSO-ACO) is developed for feature selection of GLCM, TF and GF.
 - Fuzzy based Cuckoo Search Algorithm (FCKS) is proposed for feature selection of LBP.
 - A hybrid approach of FCKS and FPSO is used for feature selection of proposed LOP.
- The classification accuracy of the retrieval system is improved by Fuzzy based Relevance Vector Machine (FRVM) with Euclidean Distance (ED) for similarity measurement.

The classification accuracy and error rate are measured using the confusion matrix. The retrieval performance is evaluated using Precision and Recall. The proposed system retrieves all the human body anatomy images, for example, brain, lung, liver and kidney, with respect to different imaging modalities. The precision has improved to 96% and the recall has improved to 92%.

Harmonic Elimination in Variable Frequency Drive using Optimization Techniques

Supervisor: Dr. L.Ashok Kumar

Candidate: D.Maheswaran

In recent years, electronics and power electronics based machineries like UPS, Welding Machines, Lighting system, SMPS in computers, converters, inverters and Variable Speed Drives are increasingly

popular in modern industrial applications due to rapid growth in power electronics technologies. The industrial worlds are converted from conventional to modern in view of the technological advancements in the field of power electronics, automation and all other engineering growth. Nowadays industries are designed in a compact and optimized way for all the aspect like Capital cost reduction, running cost reduction, Raw material usage, Resources utilization and reduce the pollutant level etc. This research work also deals with one of the power quality issue harmonic reduction in variable frequency drive for using optimization techniques. Variable frequency drive harmonics elimination is a concept, based on the application of optimization techniques at enhancing the reliability and quality of power in electrical distribution networks. Comprehensive results through case studies are presented to evaluate the performance of uncontrolled rectifier based voltage source variable frequency drives. In the case studies, characteristic values for power system parameters and drives are taken which are typical form pulp and paper industry electrical distribution.

This thesis focuses on modeling and analyzing the of uncontrolled rectifier based voltage source variable frequency drives. The model is developed using MATLAB/ Simulink circuit simulator software. The two pulse, six pulse and 12- pulse drives matlab models are clearly presented in a detailed manner and these models are employed to use passive filter design using Genetic Algorithm (GA). This work presents a method capable of designing passive filters to reduce input current harmonic distortion and to correct the power factors in two pulse and six pulse rectifier fed variable frequency drives system and phase shifting transformer secondary side voltage and current harmonic reduction in 12-Pulse drive system and also sinusoidal output wave filter design in output side of variable frequency drives. The steps involved in GA are clearly explained, simulation and experimental results for GA based design are presented.

Pulse Width Modulation (PWM) techniques are increasingly employed for PWM inverter fed induction motor drive. Among various popular PWM methods used, Selective Harmonic Elimination PWM (SHEPWM) has been widely accepted for its better harmonic elimination capability. In addition, using SHEPWM, it is also possible to maintain better voltage regulation. Hence, in this thesis, an attempt has been made to apply Bacterial Foraging Algorithm (BFA) for solving selective harmonic elimination problem. The problem of voltage harmonic elimination together with output voltage regulation is drafted as an optimization task and the solution is sought through BFA method. For performance comparison of BFA, the results obtained are compared with other techniques such as derivative based Particle Swarm Optimization (PSO), Newton-Raphson method (NR), and Genetic Algorithm (GA). From the comparison, it can be observed that BFA based approach yields better results. Further, it provides superior convergence, reduced computational burden, and guaranteed global optima. The simulation results are validated through experimental findings.

3.4 Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR (laks)
1.	Dr. L. Ashok Kumar	M/s.LRT Foundry Division, Arasur, Coimbatore	Power Quality Test	-
2.	Dr. L.Ashok Kumar	M/s.KOB Medical Textiles, Palladam	Power Quality Test	-
3.	Dr. L.Ashok Kumar	M/s. Century Apparels Pvt. Ltd., Avinashi	Power Quality Test	-
4.	Dr. L.Ashok Kumar	M/s. Theni Textile Mills, Perundurai	Power Quality Test	-

3.5 Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	1955	-	-	-	-	-
2	GRD Library, Electrical and Electronics Engineering	22,044	5,033	2,518	6	7	-

3.6 Board of studies

S No.	Date	Agenda	External experts
1	10.10.2015	<ul style="list-style-type: none"> Revision of the current BE curriculum and syllabi and finalization of 2015 Regulations & Syllabi for BE (EEE) Introduction of New Electives 	<ol style="list-style-type: none"> Dr.Sathya Bama, Professor & Head, Dept. of ECE, GCT, Coimbatore 641 013 Dr.S.Paramasivam, Senior Manager Power Electronics and Controls Danfoss Industries Pvt. Ltd., RMZ Millenia Business Park II 4A Campus, 10th Floor, 143, MGR Salai, Perungudi, Chennai-600 096 Mr.Kalirajan Bose, Technical Manager HCL Technologies Ltd., 64-66, South Phase, Second Main Road, Ambattur Industrial Estate, Chennai – 600 058
2	26.03.2016	<ul style="list-style-type: none"> Finalization of 2015 Regulations & Syllabi for BE (EEE) Introduction of New Electives 	

3.7 Research publications

3.7.1 Papers published in international journals

1. T.Bogaraj, J.Kanakaraj, and R.Rameswar, "Multi-input SEPIC Converter for Wind & Solar Hybrid Power System with Energy Storage devices", *International Journal of Applied Engineering Research*, Vol. 10(29), pp. 22653-22658, May 2015.
2. J.Chelladurai, B.Vinod, J.Kanakaraj, T.Bogaraj, and M.Sundaram, "Scalar Controlled PWM Rectifier for Micro-Wind Energy Generators", *Research Journal of Applied Science, Engineering, Technology*, Vol. 10(1), pp. 35-44, May 2015.
3. T.Bogaraj, J.Kanakaraj, and J.Chelladurai, "Modeling and Simulation of Stand-alone Hybrid Power System with Fuzzy MPPT for Remote Load Application", *Archives of Electrical Engineering*, Vol. 64(3), pp.487-504, Sep 2015.
4. A.Gunasundari, M.C. Bhuvanewari and K.R. Sri Sountharya, "Mixed Signal Integrated Circuits Testing Using Wavelets And Neural Networks", *Australian Journal of Basic and Applied Sciences*, 9(16) Special 2015, pp. 301-305, 2015
5. Angappan Natarajan and M.C.Bhuvanewari, "System-on Chip Test Scheduling using Multi-Objective Particle Swarm Optimisation Algorithm", *International Journal of Applied Engineering Research*, ISSN 0973-4562, Volume 10, Number 3, pp. 7469-7484, 2015.
6. P.Sivakumar B.Vinod, R.S.Sandhyadevi, and S.Poorani Nithilavallee, "Real-Time Task Scheduling for Distributed Embedded System using MATLAB Toolboxes" , *Indian Journal of Science and Technology*, Vol 8(15), 55680, July 2015.
7. P.Sivakumar, B.Vinod, R.S.Sandhyadevi, and ER. Jayasakthi Rajkumar, "Model Based Design Approach In Automotive Software and Systems", *International Journal of Applied Engineering Research*, ISSN 0973-4562 Vol.10, No. 11, 2015.

8. P.Sweety Jose, Jovitha Jerome, and Sudeerkumar Reddy Kakani, "Drive Front End Harmonic Compensator Based on Active Rectifier with LCL Filter", *Journal of Electrical Engineering*, ISSN 1582-4594, Vol. 15, Ed. 1, July 2015.
9. L.Ashok Kumar, "Power Quality Improvement in a Multi Machine System using a STATCOM" *International Journal of Research in Advent Technology*, Vol.4, No.1,Pg. No.16-22, E-ISSN: 2321-9637, January 2016.
10. L.Ashok Kumar, Power Quality Improvement of Grid Connected Wind Energy Systems Using Statcom-Battery Energy Storage System, *ARPJ Journal of Engineering and Applied Sciences*, Pg.No.9872- 9879, Vol. 10, No. 21, ISSN 1819-6608, November 2015.
11. L.Ashok Kumar, "A Survey on Power Quality Improvement of Multi Machine Systems Using FACTS Devices", *International Journal for Research in Applied Science & Engineering Technology*, Volume 3 Issue X, Pg. No. 216-222, ISSN: 2321-9653, October 2015.
12. L.Ashok Kumar, "Smart Grid, Standards, Policies and Regulations in India and Issues Related to DG Integration and Solutions - A Survey", *Australian Journal of Basic and Applied Sciences*, 9(23), ISSN 1991-8178, Pg.No. 248-264, July 2015.
13. L.Ashok Kumar, "Parametric Modes and Brain Frequency Analysis for BCI", *International Journal of Applied Engineering Research* (ISSN 0973-4562), Vol No 10, Issue No 55, Pg. No. 541-546, Special Issue 2015.
14. L.Ashok Kumar, "Differential Diagnosis and Identification of Bilirubinemia using Triple Modes", *International Journal of Applied Engineering Research* (ISSN 0973-4562), Volume No 10, Issue No 55, Pg. No. 4210-4215, Special Issue 2015.
15. L.Ashok Kumar, "Off Grid Power Supply For Remote Devices Using Solar PV", *International Journal of Applied Engineering Research*, ISSN 0973-4562 Volume 10, pp. 14457-14466, Nov.2015.
16. L.Ashok Kumar, "Application of Bacterial Foraging Algorithm and Genetic Algorithm for Selective Voltage Harmonic Elimination in PWM Inverter", *Journal of Electrical Engineering & Technology*, ISSN(Print) 1975-0102 ISSN (Online) 2093-7423, 10(3):944-951 2015.
17. L.Ashok Kumar, "A Novel Step-Up Converter with Reduced Output Voltage Ripple", *International Journal of Applied Engineering Research*, ISSN 0973-4562 Vol. 10 No.1 pp. 200-204, 2015.
18. Yogapriya, J., &Ila.Vennila, 2015, Efficient medical image retrieval system using optimized Classification of local octa patterns, *International Journal of Applied Engineering Research*, Vol.10, No.32, pp.23538-23552. ISSN:0973-4562.
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21. Pradeepa, P and Ila. Vennila, 2016, 'Retinal Fundus Image Registration via Blood Vessel Extraction Using Binary Particle Swarm Optimization', *Journal of Medical Imaging and Health Informatics*, vol.223, no.16, pp. 514-514, ISSN: 2156-7018 (Print): EISSN: 2156-7026 (Online) (Annexure I). IF – 0.5.
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23. Subramanian Saravanan, Ila.Vennila, and Sudha Mohanram, "Design and Implementation of Efficient Reversible Arithmetic and Logic Unit", *Circuits and Systems*, 7, 630-642, May 2016, Scientific Research publishing.
24. M. Senthilkumar, L. Ashok Kumar, A. Keerthana, V. Pavithra, and S. Poongodi, Design and development of an instrument for non- destructive fabric weight measurement, *Indian Journal of Fibre & Textile Research*, Vol. 40, pp. 329-333, September 2015. (IF: 0.634)
25. L. Ashok Kumar, Study on Different Techniques of Fabricating Conductive Fabrics for Developing Wearable Electronics Garments, *Journal of Textile Science & Engineering*, Volume 5, Issue 5, Pg.No.1-6, ISSN: 2165-8064, September 2015.
26. R. Ram Murugesh, L. Ashok Kumar, P. Wesley Maria Jones, R. Kumaravel, Real-Time Monitoring of Industrial Environmental Temperature using LabVIEW, *International Journal of Engineering Research and Applications*, Vol.5, Issue 12 (Part-3) Pg.No.129-132, ISSN 2248-9622, December 2015. (IF:0.462)

3.7.2. Papers published in national journals

1. L.Ashok Kumar, "Analysis and Comparison of Dynamic Performance of Various PLLs used in Distributed Generation Systems", KSEBEA Hydrel, *Technical Journal of KSEB Engineers Association*, Vol. 61, Pg.No.26-33, June 2015.
2. L.Ashok Kumar, "Fault Diagnosis of Automobile Starting System Using Electronic Control Unit", *National Journal of Technology*, Vol.11, No.3, Pg.No.67-83, Sep. 2015.
3. L.Ashok Kumar, "Design and Implementation of Advanced Harmonic Filter for Variable Frequency Drives", *National Journal of Technology*, Pg.No.16-22, Vol.11, No.3, ISSN - 0973 – 1334, Dec. 2015
4. L.Ashok Kumar, "Design and development of an instrument for non- destructive fabric weight measurement", *Indian Journal of Fibre & Textile Research*, Vol. 40, pp. 329-333, September 2015.
5. S.Saravanan, Ila.Vennila and Lisbin , "Synthesis and Analysis of 4x4 Reversible Gates", *National Journal of Technology*, Vol.11, No.3, September 2015.
6. L.Ashok Kumar, Harsha Vardhan, Harmonic Mitigation in a Thyristorised Heating Furnace, *National Journal of Technology*, Pg.No. 28 – 33, Vol.12, ISSN - 0973 – 1334, March 2016

4. STUDENT ACTIVITIES

4.1. Student strength

S.No.	Class	No. of students
1	BE (EEE) - I Year	59
2	BE (EEE) - II Year	73
3	BE (EEE) - III Year	68
4	BE (EEE) - IV Year	78
5	BE (EEE - SW) – I Year	63
6	BE (EEE - SW) – II Year	72
7	BE (EEE - SW) – III Year	69
8	BE (EEE - SW) – IV Year	69
9	BE (EEE - SW) – V Year	69
10	ME Applied Electronics – I Year	11
11	ME Applied Electronics – II Year	13
12	ME Power Electronics & Drives – I Year	14
13	ME Power Electronics & Drives – II Year	22
14	ME Embedded & Real-Time Systems– I Year	12
15	ME Embedded & Real-Time Systems– II Year	16
17	ME Applied Electronics Part Time – II Year	9
19	ME Electrical Machines Part Time – II Year	9

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Orientation	-	120	20.07.2015 - 22.07.2015
2.	Inauguration	Shri. Shivaraja, CEO of CLK Automation Design, Bangalore	200	25.08.2015
3.	VIRTUOSO	Shipwreck Electronic Arts Puzzle Mania Indru Netru Naalai, Best Manager, IPL Auction	150	28.09.2015 & 01.10.2015
4.	Matlab Workshop	Mr. M.S.Rajaganesh, PSG CT, Coimbatore	70	27.12.2015

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
		Ms M.Latha Maheswari, PSG CT, Coimbatore and Mr A.Angamuthu, PSG CT, Coimbatore		
5.	Kriya Digital Substations	Mr. Anoop A Parapurath (Principal Engineer,ABB), Bangalore	130	13.02.2016
6.	Workshop on Low Power Microcontroller	Mr. V. Ramesh, STEPS Knowledge Services, Coimbatore	70	05.03.2016 – 06.03.2016
7.	ADYUDH	Digital fortress Prezentista Machinist Code crackers Circuitrix Bits and bytes	150	07.03.2016 – 11.03.2016
8.	Valedictory	Sri.Mangat Ram Sharma IAS, Chairman & Managing Director, TEDA	200	16.03.2016

4.3. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1.	N.Revathy	13E912	Math surf	1 st Prize	PSG CT	12.02.2016
2.			Creative Thinking	1 st Prize	PSG CT	12.02.2016
3.			Tech Fund	1 st Prize	PSG CT	12.02.2016
4.			Treasure Hunt	1 st Prize	Coimbatore Marine College, Coimbatore	12.03.2016
5.	Jayakumar R.	12E619	Papyrus	2 nd Prize	Kriya 2016, PSG CT	12.02.2016
6.			Electronic Arts	1 st Prize	Virtuoso 2015, PSG CT	28..09.2015
7.			Paper Presentation	2 nd Prize	ATOM 16, PSG CT	01.02.2016-05.02.2016
8.			Best Manager	2 nd Prize	Virtuoso 2015	28.09.2015-01.10.2015
9.			Technical Quiz	1 st Prize	Kalaignar Karunanidhi Institute of Tech., Coimbatore	02.04.2016
10.			Paperless Presentation	1 st Place	GCT, Coimbatore	16.03.2016
11.	Mubarak M.K.	12E628	Paper Presentation	2 nd Place	ATOM, 2016, PSGCT	01.02.2016-05.02.2016
12.			Treasure Hunt	1 st Place	NSS, PSGCT	2015-2016
13.			Fotography	1 st Place	NSS, PSGCT	2015-2016
14.			Electronic Arts	1 st Prize	Virtuoso 2015, PSG CT	28.09.2015-01.10.2015
15.	Aysha Banu A.	12E608	Paperless Presentation	1 st Place	GCT, Coimbatore	16.03.2016
16.			Technical Quiz	Won	Kalaignar Karunanidhi Institute of Tech.,	02.04.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
					Coimbatore	
17.	Chidambara kumar V.V	13E105	Paper Presentation	1 st Prize	Thiagarajar College of Engineering, Madurai	03.03.2016
18.			Paper Presentation	2 nd Prize	Kumaraguru College of Technology, Coimbatore	12.02.2016
19.			Machinist Event	2 nd Prize	Thiagarajar College of Engineering, Madurai	03.03.2016
20.	Kanian N.	14E501	Paper Presentation	2 nd Prize	Kumaraguru College of Technology, Coimbatore	12.02.2016
21.	NaveenRajah N	13E131	Paper Presentation	1 st Prize		12.02.2016
22.	Kiran Prakash T.	13E120	Machinist Event	2 nd Prize	Thiagarajar College of Engineering, Madurai	03.03.2016
23.	Aravind A.	13E101	Machinist Event	3 rd Prize		03.03.2016
24.	Mouna Prabha M.	13E127	Poster Presentation	2 nd Prize		15.01.2016
25.	Karthi D.	13E115	Machine Maniac	1 st Prize	Oracle 2016, GCT	28.03.2016
26.			Circuit Decrypter	2 nd Prize		28.03.2016
27.	Gokulnath SP	14MR04	Graduation day	1 st Rank Topper	PSG CT	11.06.2016
28.	Sangeetha A.	14MR08	Alumni Award	Best Project Award	Alumni, PSG CT	11.06.2016
29.	Kanimozhi A.R.	14MQ09	Alumni Award		Alumni, PSG CT	11.06.2016
30.	Sarath Kumar N.	14MU34	Alumni Award		Alumni, PSG CT	11.06.2016
31.	Sanjaykumar A.	12E140	Alumni Award		Alumni, PSG CT	04.06.2016
32.	Aravinth Kailash M.	13E402	Alumni Award		Alumni, PSG CT	04.06.2016
33.	Vignesh N.	13E411	Alumni Award		Alumni, PSG CT	04.06.2016
34.	R Jeyanth	11E612	Alumni Award		Alumni, PSG CT	04.06.2016
35.	K Vishnuvishay	12E905	Alumni Award		Best Project Award	Alumni, PSG CT
36.	G Nithiyanan- tham	12E907	Alumni Award	Alumni, PSG CT		04.06.2016
37.	D R Kishor	12E909	Alumni Award	Alumni, PSG CT		04.06.2016
38.	A.K.Vignesh Kumar	12E160	Tech Day	EEE, PSG CT		14.03.2016
39.	Yugeash Kumar SM	11E653	Tech Day	EEE, PSG CT		14.03.2016
40.	Ankinapalli Prasad	14MR01	Tech Day	Best Outgoing Student	EEE, PSG CT	14.03.2016
41.	Sowkarthika S.	14MQ19	Tech Day		EEE, PSG CT	14.03.2016
42.	Divya R.	14MU03	Tech Day		EEE, PSG CT	14.03.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
43.	Sevandhi P.	14MR10	Alumni Induction	Alumni Best Outgoing Student	Alumni, PSG CT	29.02.2016
44.	Mounya N.	14MQ13	Alumni Induction		Alumni, PSG CT	29.02.2016
45.	Divya R.	14MU02			Alumni, PSG CT	29.02.2016
46.	P.Subhasri harini	13E501			Alumni, PSG CT	29.02.2016
47.	M.Hemaleka	11E610			Alumni Induction	Alumni, PSG CT
48.	Junaitha Begum M.	12E119	Techday	Kolluri Proficiency Award	EEE, PSG CT	14.03.2016
49.	Shriram R.	11E643	Techday		EEE, PSG CT	14.03.2016
50.	Yugeash Kumar SM	11E653	Techday	Koorathal var Award	PSG CT	14.03.2016
51.	Vignesh Kumar AK	12E160	Techday	P.D. Prakash Memorial Award	EEE, PSG CT	14.03.2016

4.4 Final year project work

4.4.1 UG project (regular)

S.No.	Roll No.	Name	Project Title	Guide's Name	Industry/ Institute associated
1	12E144	Selvaganesh P.	Closed Loop Precision Airflow Control using Voice Coil	Mr.R.Krishna Kumar	PSG IAS Coimbatore
	13E407	Nandhini A.			
	13E412	Vimal Kumar R.			
2	12E118	Jaideep K.	Transmission Line Inspection in Unmanned Aerial Vehicle	Mr.M.Kathires	-
	12E146	Shravya Dharba			
	13E401	M.Aravinth			
	13E408	Sanjeevee S.			
3	12E160	Vigneshkumar.A.K	Conversion of Single Phase to Three Phase System using Two Parallel Rectifiers	Ms.A.Sumathi	Mettur Thermal Power Station-1
	12E161	Vijayaraaghavan.P.K			
	12E162	Vineeth.K			
	13E409	Sathyapriyan.P			
4	12E114	Hamsadhwani V.	DTMF Based Cell Phone Controlled Robotic Vehicle with Obstacle Avoidance Mechanism	Ms.R.Divya	-
	12E121	Karmugilan A S.			
	13E410	Subash S.			
5	12E120	Jyothi Lakshmi J.	Designing of Reverse Power Relay for Solar System	Dr.J.Kanakaraj	PSG Tech Power House
	12E153	Surekha P			
	12E158	Vembu S			
6	12E117	Jacob lalrinfela	Arduino Based Guitar Multi-Effect Processor	Mr.T.Bogaraj	-
	12E125	Lakshmi Narayanan K.R			
	12E143	Santhosh Kumar C.			
	13E405	Magesh Kumar A.			
7	12E132	Mohan kumar M.	Fault Analysis and	Mr.S.Ramesh	Deccan

S.No.	Roll No.	Name	Project Title	Guide's Name	Industry/ Institute associated
	12E102	Aravind Kabilan S.	Minimization in the Service Sector of Submersible Pumpsets		Pumps Pvt. Ltd. Coimbatore
	12E138	Rahul S.S.			
	12E159	Vignesh.U			
8	12E135	Priyadarshini T.R.	Design of Intelligent Solar Power System with Automatic Switching between On-Grid and Off-Grid	Mr.T.Bogaraj	Mettur Thermal Power Station-1
	12E141	Sankeevi R.			
	12E142	Santhiya V.			
	12E145	Shobana M.S.			
9	12E108	Bairavi R.	Power Theft Identification using Zigbee Technology	Ms.C. Amuthavalli	Mettur Thermal Power Station-1
	12E137	Priyavadhana K.			
	12E150	Sripriya A.			
	12E157	VasanthaKumari V.			
10	12E139	Ramyia K.	Synchronous Reluctance Motor for Submersible Application	Mr.M.Anand	-
	13E501	Subashriharini P.			
	13E404	Gokul kumar R.			
11	12E147	Siddharth Kaher	Home Automation and Security System using Internet of Things	Dr.J.Kanakaraj	-
	12E151	Sudharsan S.			
12	12E127	Madan Kumar S.	A Potential Model for Distributed Maximum Power Point Tracking in Grid Tied Solar Photo Voltaic	Mr.S. Karthikeyan	Cares Renewable Ltd. Coimbatore
	12E164	Yoga viknesh K.			
	12E166	Yuvaraj K.			
	12E167	Yuvashankar S.			
13	12E112	Gopinath R.	Multi-Lingual Voice Alarm System for High-End Medical Ventilator	Mr.S.Kathires	PSG IAS Coimbatore
	12E116	Hari Prasath M.			
	12E123	Kiran G.			
	12E149	Sivaprasath M.			
14	12E103	Aravinthkumar.R	Smart Uninterruptible Power Supply	Mr.S.Karthik	-
	12E148	Sivan K.			
	13E403	Balasubramaniam S.			
	13E406	Mahaprabu R.			
15	12E165	Yoganandam V.P.	Line Rejection Rework Analysis of Submersible Pumpsets	Mr.S.Ramesh	Deccan Pumps Pvt.Ltd., Coimbatore
	12E156	Vaishali R.			
	12E154	Sushmitha A.			
	12E122	Karthik G.			
16	12E109	Balamurugan M.K.	Automation in Air Gap Testing of Contactors	Mr.S. Karthikeyan	Salzer Electronics Ltd., Coimbatore
	12E111	Dharmaraj V.			
	12E133	Pragadeeshkumar R.			
	12E136	Priyasha P.			
17	12E107	Ashvitha.L	Safe Maritime Autonomous Navigation System	Dr.Ila Vennila	Chennai Port Trust, Chennai
	12E124	Lakshmi K.R.			
	12E152	Sujitha P.			
18	12E106	Ashtalakshmi P.	Development of Solar Power Controller for Real-Time Power Management	Dr.R.Neelaveni	Shree Sai Sys, Coimbatore
	12E110	Deshika G.			
	12E130	Mayuri M.			

S.No.	Roll No.	Name	Project Title	Guide's Name	Industry/ Institute associated
	12E131	Meenaloshini P.			
19	12E126	Lakshmi Praba V.	Battery Charge Controller Using IGBT for Solar Applications	Ms.P.Sweety Jose	Vasantha Advanced Systems,
	12E104	Arshad Ahmed P.M.			
20	12E140	Sanjaykumar A.	Automated Water Management System in Agricultural Field using IOD	Ms.A.Sumathi	-
	13E402	Aravinth Kailash M.			
	13E411	Vignesh N.			
21	12E134	Prakalya P.	Impact of Holiday Hub for a Retailer	Ms.A. Guna sundari	-
22	12E115	HariPrasad.M	Evaluation of Algorithms used for Image Stitching of Biopsy	Mr.P.Sivakumar	Imec India Pvt Ltd, Bangalore
23	12E119	Junaitha Begum M	Platform Certification of Oracle Primavera Prime	Dr.S.Sumathi	Oracle, Hyderabad
24	12E113	Gowtham N.	Search implementation in a Database	Dr.P. Navaneethan	Zoho Corporation Pvt.Ltd. Chennai
25	12E129	Manjubala S.	Enhancing and Optimizing RTL Quality Checks for Client SOCs	Mr.A.Natarajan	Intel Technologies, Bangalore
26	12E105	Arunachalam M.	Automation of Register Coverage and Regression	Dr.M.C. Bhuvanewari	

4.4.2 UG project (Sandwich)

S.No.	Roll No.	Name	Project Title	Guide	Industry/ Institute associated
1	11E601	R Aadarsh	Analysis of Excitation Module	Ms. B. Sathya	Caterpillar India Pvt. Ltd., Chennai
2	11E603	Ayush Rawat	Automation Tool for Campaign Data Measurement	Mr. S. Karthik	Mu-Sigma Business Solutions Pvt. Ltd., Bangalore
3	11E604	E Boobala Ganesh	On Board Diagnostics	Mr.A.Angamuthu	Unilogic Technologies Pvt. Ltd, Coimbatore
	11E621	R P Lara Srinath			
	11E652	S M J Vigneshwaran			
	11E653	SM Yugeash Kumar			
4	11E605	K L Dharani	Online Energy Monitoring System	Dr.R.Neelaveni	Larsen & Toubro Ltd, Coimbatore
	11E630	S Preethi			
	12E910	G Uma Laxmi			
	12E916	S Karthika			
5	11E606	R Dharani	Design of Solar Power Plant	Ms. B. Nishanthi	Solon India Pvt.Ltd., Telungana
	11E620	E Kishoreraj			
	11E622	G Mega Priya			
	12E903	S Rajasri			

S.No.	Roll No.	Name	Project Title	Guide	Industry/ Institute associated
6	11E607	S Dineshkumar	Pneumatic Strength Assessment System	Ms. B. Nishanthi	SIMTECH Industries, Coimbatore
	11E639	M Sangeethkumar			
	12E915	S Nishad			
	12E919	S Ramesh			
7	11E608	B Divya	Voltage Injection in Distribution Line networks using Battery	Ms. K. Latha Maheswari	I Instant Ventures Pvt. Ltd., Bangalore
	11E631	M Punitha			
	11E635	A Roselin			
	11E645	P Sophiya			
8	11E610	M Hemaleka	Design and Development of Android Application	Ms. B. Sathya	DJ Computing, Coimbatore
	11E637	S Sabitha			
9	11E611	M Jayaseelan	Versatile SCADA (Android Application)	Ms. B. Sathya	
10	11E612	R Jeyanth	Design of Smart Grid System for Educational Institution	Dr. M. Sundaram	
	12E905	K Vishnuvishay			
	12E907	G Nithiyantham			
	12E909	D R Kishor			
11	11E615	R Karthik	Heart Beat Monitoring System	Ms. B. Nishanthi	Prime Electrods, Coimbatore
	11E640	S R Sanmugam			
	11E649	C Suriyakala			
12	11E617	K Kavin	Control Logic System Design for BLDCMotor	Ms. K.S. Mathivani	Robert Bosch Engineering and Business Solutions, Coimbatore
13	11E625	T Muthu Vijayan	Intra-vehicle Communication and Information Handling in Engine Management System	Ms.K.S.Mathivani	
14	11E618	R Keerthi Kumar	Design of Passive Power Filter	Mr.J.Chelladurai	Mahendra Sizing Mills, Mangalam
	11E619	A Kishoreneedhi			
	11E644	R Sivamoorthi			
15	11E626	T K S Nagaraj	Automated Industrial Safety System	Ms.K.S.Mathivani	
	11E627	R Naveen Kumar			
	11E651	N Vaseehar			
16	11E629	R P Praveen Kumar	Sustenance of Primavera P6 Professional	Ms.S. Deepthi	Oracle India Pvt Ltd., Hyderabad
17	11E632	R Ragavendra Kumar	Accelerometer based Physical Activity Recognition for Context Awareness	Ms.B.Sathya	McAfee Part of Intel Security Embassy Golf Links Business Park, Bangalore
18	11E633	R D Raguram	Enhancing productivity of recruitment process	Ms.B.Sathya	Mckinsey Knowledge Center, Chennai
	11E638	B V Saishree			

S.No.	Roll No.	Name	Project Title	Guide	Industry/ Institute associated
			using Data Mining and Text Mining Tools		
19	11E636	S Venkata Pawan K M Rao	Coordination and Control of Unmanned Surveillance Quadcopter	Mr. S. Karthik	Bhushan Steel Ltd., Odisha
20	11E643	R Shriram	Business Intelligence and Analytics	Mr.A.Angamuthu	Bangalore Thorogood Associates India Pvt. Ltd,
21	12E906	B Narmada	Variant Handling Optimization for MLBevo	Ms.K.S.Mathivani	Robert Bosch Engineering and Business Solutions, Coimbatore
22	11E609	R Gobinath	Goods Carrying Robot	Mr. N. Sampathraja	-
	11E616	D Karthik Ragunaathan			
	11E634	S Raja			
	12E917	R Nataraj			
	09E615	Kinjalk Shastri			
23	11E623	G Mohammed Saif Khan	LSB based Image Steganography using MATLAB	Mr. A. Natarajan	-
	11E642	M Shankar Thayalan			
	11E648	B Suresh Kumar			
	12E904	Mudang Yubbey			
24	11E628	A S Prabakaran	Solar Tracking System	Mr. S. Karthik	-
	12E902	K Vigneshwaran			
	12E908	R Hari Perumal			
	12E914	B Vinothkumar			
	11E614	S Karthiga			
25	11E641	Sapparapu Swamy Ravi Kumar	Human Detection Robot	Ms.K.S. Mathivani	-
	11E646	S Srivikash			
	11E650	L M Vachan			
	12E911	C Pradeep Kumar			
26	12E901	P Dinesh	Low Cost Home Automation	Ms.B.Nishanthi	-
	12E912	R Premkumar			
	12E913	M Jagadeesan			
	12E918	K Rajesh			

4.4.3. PG Project

4.4.3.1. Applied Electronics

S. No.	Roll No.	Name	Project Title	Project Area/ Guide	Industry / Institute associated
1	14MR01	Prasad A	Implementation of flash ADC using CMOS	Dr.Ila. Vennila	-
2	14MR02	Banupriya M	Web page development	Mr.A.Natarajan	Intel, Bangalore
3	14MR03	Divya V	Fault detection in analog and mixed signal circuits	Dr.M.C.Bhuvaneswari	-
4	14MR04	Gokulnath Sp	Verification of DSP Accelerators	Dr.Ila. Vennila	Analog Devices, Bangalore
5	14MR05	Karthika G	Smart wheel chair	Dr.J.Kanakaraj	-
6	14MR07	Mohammed Azharudeen	Low power high performance carry select adder	Dr.R.Neelaveni	-
7	14MR08	Sangeetha A	System on chip test scheduling using strength pareto evolutionary algorithm-2	Dr.M.C.Bhuvaneswari	-
8	14MR09	Sarath Babu K	Animatronic hand control	Ms.S.Deepthi	-
9	14MR10	Sevendhi P	Fault diagnosis in analog circuits	Ms.A.Gunasundari	-
10	14MR11	Vamsappriya N	Bio potential amplifier	Dr.R.Neelaveni	-
11	14MR31	Rajkumar P	System on chip testing	Mr.A.Natarajan	-
12	14MR32	Sivakumar K	Testing of analog circuits using wavenet	Ms.A.Gunasundari	-
13	14MR33	Subhaseetha K	Guidance to robot to the target, based on colour detection	Dr.J.Kanakaraj	-

4.4.3.2. Power Electronics & Drives

S.No.	Roll No.	Name	Project Title	Guide Name	Industry / Institute associated
1	13MQ06	Gowri .R	Analysis of Solar PV Application Based on Bidirectional Inverter	Mr.S.Karthik	-
2	14MQ01	Amirtha. R.S	Design and fabrication of Control Circuit For wind-solar hybrid system.	Ms.P.Sweety Jose	ReGen Powertech Chennai
3	14MQ02	Anitha J	Design of Droop Control Technique to Improve Voltage and Frequency Stability in a Microgrid during Autonomous Mode of Operation	Dr.L.Ashok Kumar	-

S.No.	Roll No.	Name	Project Title	Guide Name	Industry / Institute associated
4	14MQ03	Balaji P	Design of 40 KVA, 50Hz, 3 ϕ Inverter	Mr.A.Angamuthu	MAK Controls, Coimbatore
5	14MQ04	Berose Abdul Kadar.A	Lithium Ion Battery Management System For Electric Vehicles	Dr.L.Ashokkumar	Ampere vehicles Pvt.Ltd., Coimbatore
6	14MQ05	Daphne.R	Design of Machine Condition Monitoring Unit using vibration and temperature	Dr.B.Vinod	L&T Technology Services, Bangalore
7	14MQ06	Gannamraju Sivakumar	High Efficiency Micro inverter for Photo Voltaic Applications.	Dr.J.Kanagaraj	-
8	14MQ07	Hema.M	Design of Controller for Automatic Diamond Polishing Machine	Dr.B.Vinod	-
9	14MQ08	Kaishgi Fayaz Ali Khan	Induction Motor Speed Monitoring using Zigbee by interfacing Matlab and Proteus	Mr.S.Ramesh	Robert Bosch Coimbatore
10	14MQ09	Kanimozhi. A.R	Phasor measurement based Islanding Detection and Protection of IEEE-13 Bus Distribution system with distributed Generations	Mr.S.Karthikeyan	-
11	14MQ10	Latha Ramaswamy	Zero no load power AC/DC adapter with Embedded Battery	Mr.J.Chelladurai	-
12	14MQ11	Maideen Abdhulkader Jeylani.A	Modelling and Harmonics Study of Power System	Dr.M.Sundaram	-
13	14MQ12	Mohana Latha.P	Design and Closed Loop Control of 40KVA, 400Hz Inverter	Mr.M.Anand	MAK Controls, Coimbatore
14	14MQ13	Mounya.N	Design and Development of 5HP BLDC Motor for Submersible Application	Mr.M.Anand	-
15	14MQ14	Ravitha.T	Phasor based Out of Step Detection for the transmission line connected to the wind farms.	Mr.S.Karthikeyan	-
16	14MQ15	Sathish kumar A	Model Predictive Torque Control of Induction Motor Drives	Ms. P.Sweety Jose	-
17	14MQ16	Selva Kumar.P	Design of DC-DC Converter With Continuous Energy Flow and Low Input Current Ripple	Mr. S .Ramesh	-

S.No.	Roll No.	Name	Project Title	Guide Name	Industry / Institute associated
			for PV Application		
18	14MQ17	Senapati Naga Venkata Sai Phanindra	Winding Analysis of Multiphase Induction Motor	Dr.M.Sundaram	Caterpillar India P. Ltd, Chennai
19	14MQ18	Sevuga perumal.P	Predictive Current Control based PMSM Drive for HVAC application	Dr. L. Ashokkumar	-
20.	14MQ19	Sowkarthika.S	Analysis of Discontinuous Space Vector Pulse Width Modulation in Three Level Voltage Source Inverter	Mr.J.Chelladurai	-
21.	14MQ20	Subash Chandra Bose.M	High Frequency Power Converter for Electrostatic Precipitator Applications	Mr. S. Karthik	-
22.	14MQ21	Suganthi.P	A Novel DC Multiplier for Solar PV Energy Applications	Mr.A. Angamuthu	-

4.4.3.3. Embedded & Real-Time Systems

S.No.	Roll No.	Name	Project Title	Guide Name	Industry / Institute associated
1.	14MU01	Dinesh kumar D	FSP Dump Analyzer	Mr. P.Sivakumar	IBM, Bangalore
2.	14MU02	Divya R	Static Code Analyser for Embedded C Software	Dr. R. Neelaveni	Caterpillar India Pvt. Ltd.
3.	14MU03	Divya R	Defect Management In Automotive Software Development	Mr. P.Sivakumar	-
4.	14MU04	Gayathri K	Detection of Heart Disease Using Photoplethysmography	Ms. R.Divya	-
5.	14MU05	Gomathi P	Trouble Shooting of Power Contacts Engagement in Motor Control Center (Mcc)	Mr. A.Natarajan	L&T, Coimbatore
6.	14MU06	Krithika S	Development of Validation Tool for Wigig	Dr. S. Sumathi	Intel Technology, Bangalore
7.	14MU07	Palaniappan J	Automated Test Bench for Motor Control Center	Mr. M. Kathiresh	L&T, Coimbatore
8.	14MU08	Rineesha M	Advanced System on Chip Implementation for Biomedical Application Using Psoc4_BLE	Mr. A.Natarajan	Aries Biomed Technology, Coimbatore
9.	14MU09	Sailaja J	Diagnosis of Respiratory Disease Using Photoplethysmography	Ms. R.Divya	-

S.No.	Roll No.	Name	Project Title	Guide Name	Industry / Institute associated
10.	14MU10	Saran kumar P	Column Positioning Module	Mr. P. Sivakumar	Robert Bosch, Coimbatore
11.	14MU11	Murali Krishna T V	Automating the Verification of Ocs In Airbag Control Unit	Ms. R.Divya	Autolive, Bangalore
12.	14MU12	Yazhini C	Design of A Portable Secondary Current Injecting Module for Numerical Relays	Dr. Ila. Vennila	L&T, Coimbatore
13.	14MU31	Ashok E D	Automation of 132/33 Kv Amarchinta Substation using	Mr. M. Kathiresh	Schneider Electric Pvt.
14.	14MU32	Elavarasi M	Model Based System Engineering for Automotive Embedded Software	Mr.P.Sivakumar	-
15.	14MU33	Jeevanantham R	Testing of Transmission Parameters Using Psoc	Mr. M. Kathiresh	Aries Biomed Technology, Coimbatore
16.	14MU34	Sarath kumar N	Design of Humanoid Robot Eye	Dr. B. Vinod	TATA Elxi, Chennai
17.	13MU51	Jayasree D	Insulin Monitoring System for Type 1 Diabetes	Dr. Ila. Vennila	-

4.5. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1	GRE	1	11E636	S.Venkata Pawan K M Rao

4.6. Placement BE (EEE)

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	Accenture, Bangalore	4	12E146	Shravya Dharba	3.40
2.			12E105	Arunachalam M	3.40
3.			12E118	Jaideep K	3.40
4.			12E126	Lakshmi Praba V	3.40
5.	Ashok Leyland, Chennai	3	12E110	Deshika G	3.35
6.			12E141	Sankeevi R	3.35
7.			13E407	Nandhini A	3.35
8.	Cognizant, Chennai	1	12E158	Vembu S	3.35
9.	Deloitte Consulting(I) Pvt. Ltd, Hyderabad	2	12E136	Priyasha P	5.50
10.			12E159	Vignesh U	5.50
11.	Fanuc India Pvt.Ltd, Bangalore	1	12E168	Aravinthkailash M	2.62
12.	IBM, Bangalore	1	12E116	Hari Prasath M	3.35

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
13.	Incture Technologies, Bangalore	1	12E107	Ashvitha L	4.00
14.	Infosys, Bangalore	3	12E143	Santhosh Kumar C	3.25
15.			12E152	Sujitha P	3.25
16.			12E104	Arshad Ahamed P M	3.25
17.	ITC ABD,Hyderbad	1	12E164	Yoga Viknesh K	8.50
18.	IVTL Infoview Technologies, Chennai	1	12E127	Madan Kumar S	6.50
19.		1	12E140	Sanjaykumar A	6.50
20.		1	12E145	Shobhana M.S	6.50
21.		1	12E160	Vigneshkumar A K	6.50
22.	Jhonson Controls, Chennai	1	12E150	Sripriya A	3.55
23.	Latent View	1	12E129	Manjubala S	4.50
24.	Oracle India,Hyderabad	1	12E119	Junaitha Begum M	7.00
25.	Robert Bosch,Coimbatore	1	12E115	Hari Prasad M	4.00
26.	Sapient Technologies	1	12E132	Mohan Kumar M	4.50
27.	Solvanni Technologies, Chennai	2	12E137	Priyavadhana K	3.15
28.			13E501	Subhashriharini P	3.15
29.	Tata consultancy services, Chennai	10	12E111	Dharmaraj V	3.30
30.			12E131	Meenaloshini P	3.30
31.			12E135	Priyadarshini T.R	3.30
32.			12E142	Santhiya V	3.30
33.			12E144	Selvaganesh P	3.30
34.			12E149	Sivaprasath M	3.30
35.			12E157	Vasanthakumari V	3.30
36.			12E161	Vijayaraaghavan P K	3.30
37.			13E402	Yuvashankar S	3.30
38.			12E109	Balamurugan M K	3.30
39.			12E120	Jyothi Lakshmi J	3.30
40.	TATA Elxsi, Bangalore	5	12E112	Gopinath R	3.50
41.			12E124	Lakshmi K R	3.50
42.			12E130	Mayuri M	3.50
43.			12E153	Surekha P	3.50
44.			12E162	Vineeth K	3.50
45.	TVS Motors, Hosur	1	12E156	Vaishali R	4.50
46.	Ugam Solutions, Coimbatore	1	12E134	Prakalya P	6.50
47.	Wellsfargo India Solutions, Hyderabad	2	12E102	Aravind Kabilan S	5.50
48.			12E123	Kiran G	5.50
49.	Wipro Technologies, Bangalore	1	12E147	Siddarth kaher	3.25
50.	Zoho Corporation,Chennai	1	12E113	Gowtham N	6.50

BE – EEE (SW)

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	ABB,Chennai	2	11E614	Karthiga S	4.25
2.			11E635	Roselin A	4.25
3.	Accenture, Bangalore	4	11E619	Kishore Needhi A	3.40
4.			11E640	Sanmugam A	3.40

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
5.			11E645	Sophiya P	3.40
6.			12E915	Nishad S	3.30
7.	Blue Star, Thane	1	12E909	kishor D R	5.10
8.	Cognizant, Chennai	4	11E604	Dharani K L	3.35
9.			11E606	Dharani R	3.35
10.			11E618	Keerthi Kumar R	2.62
11.			12E914	Vinoth Kumar B	3.35
12.	HP India, Bangalore	1	11E653	Yugeash Kumar S M	3.60
13.	HP R&D, Bangalore	1	12E910	Umalaxmi G	7.50
14.	Incture Technologies, Bangalore	1	11E611	Jayaseelan M	4.00
15.	Infoview Technology Pvt Ltd, Chennai	4	11E604	Boobalaganesh E	6.50
16.			11E612	Jeyanth R	6.50
17.			11E615	Karthik R	6.50
18.			11E631	Punitha M	6.50
19.	Intel Security Systems, Bangalore	1	11E632	Ragavendra Kumar R	7.81
20.	LUK India Pvt Ltd, Chennai	1	11E638	Saishree B V	4.25
21.	Mckinsey and Company, Chennai	1	11E633	Raguram R D	5.50
22.	Mu Sigma Business Solutions Pvt. Ltd. Bangalore	2	11E603	Ayush Rawat	4.50
23.			11E610	Hemaleka M	4.50
24.	Oracle Finance, Bangalore	1	11E608	Divya B	5.63
25.	Oracle India Pvt Ltd, Hyderabad	1	11E629	Praveen Kumar R P	7.00
26.	Robert Bosch Engineering and Business Solutions Pvt. Ltd, Coimbatore	1	11E601	Aadarsh R	4.00
27.		1	11E617	Kavin K	4.00
28.		1	11E625	Muthu Vijayan T	4.00
29.		1	12E906	Narmada B	4.00
30.	Sapient Nitro, Bangalore	1	11E627	Naveen Kumar R	4.50
31.	Solveanni, Coimbatore	1	11E621	Lara Srinath R P	3.15
32.	Tata Consultancy Services	1	11E623	Mohammed Saif Khan G	3.30
33.		1	11E626	Nagaraj T K S	3.30
34.		1	11E637	Sabitha S	3.30
35.		1	11E651	Vaseehar N	3.30
36.		1	12E912	Prem Kumar R	3.30
37.		1	12E917	Nataraj R	3.30
38.		1	11E644	Sivamoorthi R	3.30
39.	Tata Elxsi Limited, Bangalore	1	12E905	Vishnu Vikash K	3.50
40.	Texas Instruments, Bangalore	1	11E622	Megapriya G	15.19
41.	Thorogood Associates India Pvt. Ltd., Bangalore	1	11E643	Shriram R	11.00
42.	Wells Fargo, Hyderabad	1	11E620	KishoreRaj E	5.50

ME – Applied Electronics

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	TATA ELXSI Ltd., Bangalore	2	14MR01	Prasad A.	3.50
2.			14MR03	Divya V.	
3.	Intel India Technologies Pvt. Ltd., Bangalore	1	14MR02	Banu Priya M.	10.21
4.	Cognizant, Chennai	1	14MR08	Sangeetha A.	3.35
5.	Tata Consultancy Services Ltd., Chennai	1	14MR09	Sarath Babu K.	3.50

ME – Power Electronics & Drives

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	Cognizant, Chennai	8	14MQ02	Anitha J	3.35
2.			14MQ03	Balaji P	
3.			14MQ05	Daphne.R	
4.			14MQ06	Gannamraju Sivakumar	
5.			14MQ07	Hema.M	
6.			14MQ09	Kanimozhi.A.R	
7.			14MQ12	Mohana Latha.P	
8.			14MQ17	Senapati Naga Venkata Sai Phanindra	
9.	Infosys Technologies Ltd., Bangalore	1	14MQ15	Sathishkumar A	3.50
10.	L & T Technology Services, Bangalore	2	14MQ18	Sevugaperumal.P	4.00
11.			14MQ19	Sowkarthika.S	
12.	Tata Consultancy Services Ltd., Chennai	1	14MQ08	Kaishgi Fayaz Ali Khan	3.50
13.		1	14MQ20	Subash Chandra Bose.M	

ME – Embedded & Real-Time Systems

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
1.	Caterpillar India Pvt. Ltd., Bangalore	1	14MU02	Divya R	8.86
2.	Cognizant, Chennai	4	14MU01	Dinesh kumar D	3.35
3.			14MU12	Yazhini C	
4.			14MU33	Jeevanantham R	
5.			14MU34	Sarath kumar N	
6.	IBM India Pvt. Ltd., Bangalore	1	14MU07	Palaniappan J	3.35
7.	Tata Consultancy Services Ltd., Chennai	1	14MU05	Gomathi P	3.50
8.		1	14MU10	Saran kumar P	
9.	TATA ELXSI Ltd., Bangalore	1	14MU04	Gayathri K	3.50
10.	Wipro Technologies, Bangalore	1	14MU06	Krithika S	3.25

4.7. Industrial training and project

4.7.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	Wendt India, Bangalore	BE EEE – 6 th Sem	28.02.2016 - 03.03.2016	Machine Tools Manufacturing
2	ISRO, Bangalore	35, PG, 2 nd sem	09.04.2015 - 11.04.2015	Study of different types of space vehicles
3	ISRO, Bangalore	BE EEE - 5 th Sem	16.04.2015 - 18.04.2015	Study of different types of space vehicles
4	L & T Training Centre, Connoor	54, UG, 2 nd Sem	08.01.2015	Understanding different types of L & T Switch gears
5	LAPP Cable Centre, Bangalore	UG, 4 th Sem	2 days	Types of cables

4.7.2 Short term training

S.No.	Name of the Company	No. of students & Course	Duration (in days)	Area of Training
1	BSNL, Salem	4, UG	5	Substation, Transmission, Network
2	BSNL, Salem	4,UG	5	Substation, Transmission, Network
3	BSNL, Salem	4, UG	5	Substation, Transmission, Network
4	Salzer Electronics, Coimbatore	2, UG	5	Contactors, Relays
5	Salzer Electronics, Coimbatore	2,UG	5	Contactors, Relays
6	Ashok Leyland, Unit1 , Hosur	2,UG	4	Switch gears
7	Ashok Leyland, Unit1 , Hosur	2,UG	4	Switch gears
8	Lapp cable, Bangalore	1, UG	5	Manufacturing of cable and testing
9	Titan company, Hosur	1, UG	6	PLC
10	BSNL, Tirunelveli	1,Ug	5	Substation, Transmission, Network
11	SE Electricals,	2, UG	7	Control Panels, Generators, coil shop
12	Coimbatore	2, UG	7	Control Panels, Generators, coil shop
13	Mikrosen, Coimbatore	1,UG	3	PCB designing, photo sensors manufacturing
14	V-Guard, Kochi	1, UG	14	Stabilizers, Inverters
15	Lapp cable, Bangalore	4,UG	8	Manufacturing of cable and testing
16	Lapp cable, Bangalore	4,UG	8	Manufacturing of cable and testing
17	Lapp cable, Bangalore	4,UG	8	Manufacturing of cable and testing
18	Lapp cable, Bangalore	4,UG	8	Manufacturing of cable and testing

4.7.3. Project work / Internship

S.No.	Name of company	No. of students & course	Period	Area of work
1.	PSG IAS Coimbatore	3 UG - 8 th Sem	01.12.2015 - 30.04.2016	Closed Loop Precision Airflow Control using Voice Coil

S.No.	Name of company	No. of students & course	Period	Area of work
2.	Mettur Thermal Power Station-1, Mettur	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Conversion of Single Phase to Three Phase System using Two Parallel Rectifiers
3.	PSG Tech Power House, Coimbatore	3 UG - 8 th Sem	01.12.2015 - 30.04.2016	Designing of Reverse Power Relay for Solar System
4.	Deccan Pumps Pvt.Ltd. Coimbatore	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Fault Analysis and Minimization in the Service Sector of Submersible Pumpsets
5.	Mettur Thermal Power Station-1, Mettur	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Design of Intelligent Solar Power System with Automatic Switching between On-Grid and Off-Grid
6.	Mettur Thermal Power Station-1, Mettur	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Power Theft Identification using Zigbee Technology
7.	Cares Renewable Ltd. Coimbatore	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	A Potential Model for Distributed Maximum Power Point Tracking in Grid Tied Solar Photo Voltaic Systems
8.	PSG IAS, Coimbatore	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Multi-Lingual Voice Alarm System for High-End Medical Ventilator
9.	Deccan Pumps Pvt.Ltd., Coimbatore	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Line Rejection Rework Analysis of Submersible Pumpsets
10.	Salzer Electronics Ltd., Coimbatore	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Automation in Air Gap Testing of Contactors
11.	Chennai Port Trust, Chennai	3 UG - 8 th Sem	01.12.2015 - 30.04.2016	Safe Maritime Autonomous Navigation System
12.	Shree Sai Sys, Coimbatore	4 UG - 8 th Sem	01.12.2015 - 30.04.2016	Development of Solar Power Controller for Real-Time Power Management
13.	Vasantha Advanced Systems, Coimbatore	2 UG - 8 th Sem	01.12.2015 - 30.04.2016	Battery Charge Controller Using IGBT for Solar Applications
14.	Imec India Pvt. Ltd, Bangalore	1 UG - 8 th Sem	01.12.2015 - 30.04.2016	Evaluation of Algorithms used for Image Stitching of Biopsy
15.	Oracle, Hyderabad	1 UG - 8 th Sem	01.12.2015 - 30.04.2016	Platform Certification of Oracle Primavera Prime
16.	Zoho Corporation Pvt.Ltd. Chennai	1 UG - 8 th Sem	01.12.2015 - 30.04.2016	Search implementation in a Database
17.	Intel Technologies, Bangalore	1 UG - 8 th Sem	01.12.2015 - 30.04.2016	Enhancing and Optimizing RTL Quality Checks for Client SOCs
18.	Intel Technologies, Bangalore	1 UG - 8 th Sem	01.12.2015 - 30.04.2016	Automation of Register Coverage and Regression
19.	Caterpillar India Pvt. Ltd., Chennai	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Analysis of Excitation Module
20.	Mu-Sigma Business Solutions Pvt. Ltd., Bangalore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Automation Tool for Campaign Data Measurement
21.	Unilogic Technologies Pvt. Ltd, Coimbatore	4 UG - 10 th Sem	01.12.2015 - 30.04.2016	On Board Diagnostics

S.No.	Name of company	No. of students & course	Period	Area of work
22.	Larsen & Toubro Ltd, Coimbatore	4 UG - 10 th Sem	01.12.2015 - 30.04.2016	Online Energy Monitoring System
23.	Solon India Pvt.Ltd., Telungana	4 UG - 10 th Sem	01.12.2015 - 30.04.2016	Design of Solar Power Plant
24.	SIMTECH Industries, Coimbatore	4 UG - 10 th Sem	01.12.2015 - 30.04.2016	Pneumatic Strength Assessment System
25.	I Instant Ventures Pvt. Ltd., Bangalore	4 UG - 10 th Sem	01.12.2015 - 30.04.2016	Voltage Injection in Distribution Line networks using Battery
26.	DJ Computing, Coimbatore	3 UG - 10 th Sem	01.12.2015 - 30.04.2016	Design and Development of Android Application
27.	DJ Computing, Coimbatore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Versatile SCADA (Android Application)
28.	PSG Tech Power House, Coimbatore	4 UG - 10 th Sem	01.12.2015 - 30.04.2016	Design of Smart Grid System for Educational Institution
29.	Prime Electrods, Coimbatore	3 UG - 10 th Sem	01.12.2015 - 30.04.2016	Heart Beat Monitoring System
30.	Robert Bosch Engineering and Business Solutions, Coimbatore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Control Logic System Design for BLDC Motor
31.	Robert Bosch Engineering and Business Solutions, Coimbatore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Intra-vehicle Communication and Information Handling in Engine Management System
32.	Mahendra Sizing Mills, Mangalam Road, Tirupur	3 UG - 10 th Sem	01.12.2015 - 30.04.2016	Design of Passive Power Filter
33.	Mahendra Sizing Mills, Mangalam Road, Tirupur	3 UG - 10 th Sem	01.12.2015 - 30.04.2016	Automated Industrial Safety System
34.	Oracle India Pvt Ltd., Hyderabad	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Sustenance of 'Primavera P6 Professional
35.	McAfee Part of Intel Security Embassy Golf Links Business Park, Bangalore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Accelerometer based Physical Activity Recognition for Context Awareness
36.	Mckinsey Knowledge Center, Chennai	2 UG - 10 th Sem	01.12.2015 - 30.04.2016	Enhancing productivity of recruitment process using Data Mining and Text Mining Tools
37.	Bhushan Steel Ltd., Odisha	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Coordination and Control of Unmanned Surveillance Quadcopter
38.	Thorogood Associates India Pvt. Ltd, Bangalore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Business Intelligence and Analytics
39.	Robert Bosch Engineering and Business Solutions, Coimbatore	1 UG - 10 th Sem	01.12.2015 - 30.04.2016	Variant Handling Optimization for MLBevo
40.	Intel, Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Web page development
41.	Analog Devices, Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Verification of DSP Accelerators
42.	ReGen POWERTECH Chennai	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Design and fabrication of Control Circuit For wind-solar hybrid system

S.No.	Name of company	No. of students & course	Period	Area of work
43.	MAK Controls, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Design of 40 KVA, 50Hz, 3 ϕ Inverter
44.	Ampere vehicles Pvt. Ltd., Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Lithium Ion Battery Management System for Electric Vehicles
45.	L&T Technology Services, Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Design of Machine Condition Monitoring Unit using vibration and temperature
46.	Robert Bosch Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Induction Motor Speed Monitoring using Zigbee by interfacing Matlab and Proteus.
47.	MAK Controls, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Design and Closed Loop Control of 40KVA, 400Hz Inverter
48.	CATERPILLAR India P. Ltd, Chennai	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Winding Analysis of Multiphase Induction Motor
49.	IBM India Pvt. Ltd., Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	FSP Dump Analyzer
50.	Caterpillar India Pvt. Ltd., Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Static Code Analyser for Embedded C Software
51.	L&T, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Trouble Shooting of Power Contacts Engagement In Motor Control Center (Mcc)
52.	Intel Technology India Pvt. Ltd, Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Development of Validation Tool for Wigig
53.	L&T, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Automated Test Bench For Moto Control Center
54.	Aries Biomed Technology, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Advanced System on Chip Implementation for Biomedical Application Using Psoc4_BLE
55.	Robert Bosch, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Column Positioning Module
56.	Autolive, Bangalore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Automating the Verification of Ocs In Airbag Control Unit
57.	L&T, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Design of A Portable Secondary Current Injecting Module For Numerical Relays
58.	Schneider Electric Pvt. Ltd., Chennai	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Automation of 132/33 Kv Amarchinta Substation Using Scada
59.	Aries Biomed Technology, Coimbatore	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Testing of Transmission Parameters Using Psoc
60.	TATA Elxi, Chennai	1 PG - 4 th Sem	01.12.2015 - 31.05.2016	Design of Humanoid Robot Eye

4.8. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1	S.Venkata Pawan K M Rao	MS	Technical University of Denmark

4.9. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1981	9		1991	61	23	2001	95	48	2011	131	58
1982	6		1992	61	17	2002	100	51	2012	131	75
1983	57	28	1993	66	32	2003	96	44	2013	123	50
1984	93	22	1994	61	25	2004	95	77	2014	137	74
1985	38	25	1995	67	30	2005	94	36	2015	141	56
1986	49	26	1996	73	14	2006	101	63	2016	143	51
1987	47	25	1997	63	40	2007	94	43			
1988	40	21	1998	86	29	2008	121	47			
1989	58	49	1999	89	37	2009	135	38			
1990	69	13	2000	98	29	2010	132	55			

5. SUMMARY

S. No.	Activity	No.	
1.	Workshops conducted	11	
2.	Sponsored research projects ongoing	3	
3.	Scholars pursuing doctoral research	47	
4.	Doctorates produced till date	91	
5.	Papers published in international journals	30	
6.	Papers published in national journals	6	
7.	Awards won by faculty	3	
10.	Awards won by students	59	
11.	No. of. students passed out during 2015-16	UG	143
		PG	51
12.	No. of. students passed out till date	UG	2923
		PG	1277

**DEPARTMENT OF INSTRUMENTATION AND CONTROL
SYSTEMS ENGINEERING**

ABOUT THE DEPARTMENT

The Department of Instrumentation and Control Systems Engineering was established in the year 2007. The department provides undergraduate program in Instrumentation and Control and post graduate program in Control Systems Engineering.

Instrumentation and Control Engineering plays a vital role in any modern industry. The department aims at producing talented Instrumentation and Control specialists who cater to the needs of the modern industries. The department is fascinating motley of multifarious disciplines of technology such as Electronics, Electrical, and Mechanical measurements, and Process Control Engineering. The curriculum begins with foundation courses in Mathematics, Physics, Chemistry, Electronics and Mechanics. Emphasis is laid on the courses like sensors and transducers, micro-controllers, industrial instrumentation, control systems, PC interfacing and telemetry. The focus in the final year is more on advanced electives such as Instrumentation System Design, Robotics, Biomedical Engineering, Intelligent Controllers, Embedded Systems, and Instrumentation and Control Systems for industries. With a perfect blend of industrial exposure, coupled with good technical base, our students will make their presence felt in various technological domains in all the top-level industries.

The department aims to prepare students for productive careers in the discipline of Instrumentation and Control and hence to produce graduates who accept responsibility for leadership roles in their profession, community, and global society. Also the department wishes to be the preferred partner to the industry and community with its contribution towards their economic and social development by providing high quality manpower, through excellence in teaching, research and consultancy.

The department strives towards becoming a world class institution by producing professionals with high technical knowledge, necessary skills and ethical values and be recognized as a point of reference, a catalyst, a facilitator, a trend-setter in the field of Instrumentation and Control Engineering.

The department encourages student involvement in several co-curricular activities like group discussions, publication in journals/conferences, workshops and seminars. Students are also exposed to the challenges in taking over as entrepreneurs through the Science and Technology Entrepreneurial Park. Students regularly undertake industrial visits during the semester and vacation in order to appreciate the field skills and gain confidence. Students also actively participate in sports, games and competitions in collegiate and inter collegiate levels. These activities help the students to improve their communication skills, leadership qualities, team player spirit and become result oriented.

PSG-NI Virtual Instrumentation Centre is a collaborative centre started in the year 2000 by PSG College of Technology and National Instruments, USA, which is the first centre in India in the field of Virtual Instrumentation. Intensive training programmes and short term courses on LabVIEW Basics are continuously organized by the centre for the students and faculty of PSG College of Technology and other engineering colleges. The centre conducts continuing education programmes to the executives of leading organizations like Ashok Leyland, Hosur, South India Textile Research Association, Coimbatore, Indira Gandhi Centre for Atomic Research, Kalpakkam, Sundaram Clayton Ltd., Chennai, ELGI Equipments Ltd., Chennai, Bloom Energy India Pvt. Ltd., Bangalore. Twenty six courses were conducted in the centre since 2004. The centre is also focusing on Consultancy work for industries. This centre was awarded the "Best Graphical System Design Lab" among 240 centers in India by National Instruments.

PSG Rockwell centre of excellence in industrial automation is set up in the department in association with Rockwell Automation India Limited and started to function in I&CE department from June 2013. The centre is equipped with industrial automation systems like PLC, PAC, Industrial drives and control, HMI panels and integrated architecture. Manufacturing Execution which is used to train the engineering students and provide engineers as per industrial requirement in the field of process and

factory automation .The centre is utilized by both UG Instrumentation and Control Systems Engineering and PG Control systems students for their project work and laboratory courses. Intensive training programmes and faculty development programmes are continuously organized by the centre for students, faculty of engineering and polytechnic colleges, professionals from research organizations and industries.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr. J. Arunshankar M.E., Ph.D. Associate Professor	jas@ice.psgtech.ac.in	2008	Instrumentation & Control
2	Dr. S. Esakkirajan M.E., Ph.D. Associate Professor	ser@ice.psgtech.ac.in	2004	Digital image Processing
3	Dr. S. Kanthalakshmi M.E., Ph.D. Associate Professor	skl@ice.psgtech.ac.in	2009	Fault Tolerant Control Systems
4	Dr. S.Rajan M.E., Ph.D. Associate Professor	gsr@cse.psgtech.ac.in	2008	Instrumentation
5	Dr. R. Latha M.E., Ph.D. Assistant Professor (SL.G)	rla@ice.psgtech.ac.in	2007	Power System Optimization and Control
6	Ms. T.K. Vijaya M.E., Assistant Professor (Sr.G)	tkv@ice.psgtech.ac.in	2010	Applied Electronics
7	Dr. M. Geetha M.E., Ph.D. Assistant Professor (Sr.G)	mga@ice.psgtech.ac.in	2010	Advanced Process Control
8	Dr. K. Selvakumar M.E., Ph.D. Assistant Professor (Sr.G)	ksk@ ice.psgtech.ac.in	2009	Embedded Systems
9	Mr. D. Jayaprasanth M.E., Assistant Professor (Sr.G)	djp@ice.psgtech.ac.in	2010	Control Engineering
10	Ms. M.P. Anbarasi M.E., Assistant Professor	mpa@ice.psgtech.ac.in	2011	Control Systems
11	Mr.S.Navaneethan M.E., Assistant Professor	snn@ice.psgtech.ac.in	2011	Control & Instrumentation
12	Mr.S.Karthick M.E., Assistant Professor	skp@ice.psgtech.ac.in	2012	Control of electric drives
13	Mr.P.Arun kumar M.E., Assistant Professor	pak@ice.psgtech.ac.in	2013	Control Systems
14	Mr. S. Natarajan, M.E., Assistant Professor	snt@ice.psgtech.ac.in	2014	Embedded & Real-time Systems
15	Swetha R Kumar, M.E., Assistant Professor	srk@ice.psgtech.ac.in	2015	Process Control

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No	Name of faculty	Programme	Year of joining & status
1	Ms. M. Geetha	Ph.D	2010, Completed
2	Mr. D.Jayaprasanth	Ph.D	2012, Ongoing
3	Ms. T.K. Vijaya	Ph.D	2013, Ongoing

S.No	Name of faculty	Programme	Year of joining & status
4	Ms. M.P. Anbarasi	Ph.D	2013, Ongoing
5	Mr.S.Navaneethan	Ph.D	2013, Ongoing
6	Mr.S.Karthick	Ph.D	2014, Ongoing
7	Mr.P.Arunkumar	Ph.D	2015, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency	Period
1	Dr.Jovitha Jerome Ms.T.K.Vijaya Mr.S.Navaneethan	Lab VIEW for Control Application	TEQIP-II	11.07.2015- 12.07.2015
2	Mr.S.Navaneethan Mr. S. Karthick	Workshop on “Design and Hardware Implementation of Control Systems using Matlab and Simulink”	Mathworks	29.08.2015
3	Dr.S.Esakkirajan Dr.K.Selvakumar Ms.T.K.Vijaya	Principles of Digital Signal Processing using MATLAB	CNCE	11.09.2015- 12.09.2015
4	Dr.J Arunshankar Dr.R.Latha P.Arunkumar	Workshop On Advanced Control System Design Using Matlab	-	19.02.2016- 20.02.2016
5	Dr.M.Geetha Mr. P.Arunkumar Mr. S. Natarajan	workshop on Factory Automation Using Programmable Logic Controller	-	23.03.2016- 24.03.2016
6	Dr.J.Arunshankar Mr.S.Navaneethan	Control systems and automation (CCSA 16)	-	23.04.2016
7	Ms.T.K.Vijaya	One credit course on System Design and Implementation	National Instruments, Bangalore	19.03.2016- 20.03.2016
8	Dr.J Arunshankar Dr.S.Rajan Mr. Mr.S. Natarajan	Smart Structures and Systems	TEQIP-II	28.05.2016

2.3 Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr.J.Arunshankar	workshop on Applying and implementing effective Teaching methods for professional development	PSG Centre for academic and research excellence	05.12.2015
2	Dr.J.Arunshankar	MEMS & NEMS (Design and fabrication)	Indian Institute of Technology, Hyderabad	14.12.2015- 18.12.2015
3	Dr.J.Arunshankar	MEMS, ITS CAD Tools & Smart Structures	National Institute of Technology, Tiruchirappalli	05.01.2016- 09.01.2016
4	Dr.S.Esakkirajan	Role of Visualization in Engineering Education	PSG Centre for academic and research excellence	04.12.2015
5	Dr.S.Esakkirajan	National workshop on Digital Signal Processing	Dept.of.Physics Govt.College Madappaly, Kozhikode	02.02.2016- 03.02.2016

S.No.	Name of faculty	Programme	Organizer	Period
6	Dr.S.Esakkirajan	Digital Signal Processing for Educators	International Institute of Information Technology, Bangalore	01.03.2016-03.03.2016
7	Dr.S. Kanthalakshmi Dr. R. Latha Ms.M.P. Anbarasi Ms.T.K.Vijaya Mr.P Arun Kumar Mr. S. Natarajan Dr.S.Rajan D.Jayaprasanth Ms.Swetha k kumar	workshop on “Design and Hardware Implementation of Control Systems using MATLAB and Simulink”	PSG College of Technology, Coimbatore	29.08.2015
8	Dr.S. Kanthalakshmi	Workshop on “Education Technology”	PSG Centre for Academic and Research Excellence, Coimbatore	04.12. 2015
9	Dr.S. Kanthalakshmi Mr.S.Navaneethan	AICTE Sponsored One Week Short Term Course on “Modelling and Simulation of Non-Linear Electrical Systems”	Coimbatore Institute of Technology, Coimbatore	15.02.2016-21.02.2016
10	Dr. R. Latha	Energy Auditing and Conservation Techniques	Department of EEE, PSGCT	03.07.2015-04.07.2015
11	Dr. R. Latha Mr.S.Navaneethan	FPGA based control of Permanent Magnet & Reluctance motors for Energy Efficient Industrial Drives	Department of EEE and Department of RAE, PSGCT	06.08.2015-08.08. 2015
12	Dr. R. Latha	Control Engineering Analysis and Design using MATLAB/SIMULINK	Department of Avionics, Indian Institute of Space Science and Technology, Trivandrum	15.12.2015-18.12.2015
13	Dr.R.Latha Ms.Anbarasi M.P	Workshop titled “ How to publish a Technical Paper with IEEE”	IIT Madras. Chennai	20-08-2015
14	Ms.T.K.Vijaya	Foundation Skills in Integrated Product Development	TEQIP-II PSGCT, Coimbatore	19.01.2016-23.01.2016
15	Dr.K.Selvakumar	Foundation skills in Integrated Product Development	PSGCT, Coimbatore	23.11.2015-27.11.2015
16	Ms.Anbarasi M.P	Advanced Control System Design using MATLAB	PSGCT, Coimbatore	19.02.2016-20.02.2016
17	Mr.P.Arun Kumar Ms. Swetha R Kumar	Industrial Automation 2015	NIT ,Trichy	17.08.2015-19.08.2015
18	Mr.P.Arun Kumar	Control Systems Analysis Using MATLAB/Simulink	IIST , Trivandrum	15.12.2.015-18.12.2015
19	Mr.P.Arun Kumar	Advanced Process Control	NIT , Warangal	07.03.2016-11.03.2016

S.No.	Name of faculty	Programme	Organizer	Period
20	Mr.P.Arun Kumar	Implementation of 5s Laboratory	TEQIP-II PSGCT, Coimbatore	20.04.2016- 26.04.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr. J. Arunshankar	TEQIP Sponsored	Essentials of Process Control	SGGS Institute of Technology, Nanded	23.10.2015- 24.10.2015
2	Dr. J. Arunshankar	-	State Estimation	National Institute of Technology, Tiruchirappalli	01.10.2015
3	Dr. S. Esakkirajan	National Workshop on Digital Signal Processing with special emphasis on Digital Speech Processing	Digital Signal Processing with Tools	Department of Physics, Government College, Madapally	02.02.2016- 03.02.2016
4	Dr. M. Geetha	Advanced Control System using MATLAB	Improved Relay feedback Autotuning	ICE Dept, PSGCT, Coimbatore	27.02.2016

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1.	Dr.J.Arunshankar	Research Symposium	SGGS Institute of Technology, Nanded.
2	Dr.J.Arunshankar	BoS Member	Department of EIE, Kumaraguru College of Engineering, Coimbatore

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S. No	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Electronics Lab	TEKTRONIX Make Digital Storage Oscilloscope	0.30
2	DSP Lab	TMS320C6416 DSP STATER KIT	0.44

3.2 Development of new laboratories

S.No.	Laboratory name	Date of inauguration	Major equipment details	Cost in INR (lakhs)
1	Calibration Centre	25.06.2014	Fluke 5080A Calibrator(1No)	9.9
			Fluke 1620 Dewk Thermohygrometer	2.4
			Fluke 8846A 61/2 Digit Precision Multimeter(1No)	1.6

S.No.	Laboratory name	Date of inauguration	Major equipment details	Cost in INR (lakhs)
			Fluke 381 Remote Display TRMS Clamp Meter(1No)	0.4
			Fluke 5500A/Coil (1No)	1.62

3.3 Doctoral research

S.No	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Ms.M.Geetha	Control Systems	Dr.Jovitha Jerome Professor & Head Department of I&CE PSGCT, Coimbatore	Completed
2	Ms.Sweety Jose	Power Electronics	Dr.M.Geetha Assistant Professor Department of I&CE PSGCT, Coimbatore	17.02.2011/ In progress
3	Ms.A.S.Wincy Pon Annal	Control Systems	Dr.S. Kanthalakshmi Associate Professor Department of I&CE PSG CT, Coimbatore	18.01.2012/In progress
4	Mr.D.Jayaprasanth	State Estimation		18.01.2012/In progress
5	T.K.Vijaya	Image Processing		01.06.2013/In progress
6	S.Navaneethan	Control Systems		14.06.2013/In progress
7	M.P.Anbarasi	Renewable Energy		14.06.2013/In progress
8	S.Karthick	Optimal Control		04.12.2013/In progress
9	P. Arun kumar	Advanced Process Control	Dr.M.Geetha Assistant Professor Department of I&CE PSGCT, Coimbatore	January 2015 In progress
10	E. Govindhkumar	Process Control	Dr. J. Arunshankar Associate Professor Department of I&CE PSGCT, Coimbatore	12.06.2014/In progress
11	S. Devakaran	Vibration Control		24.12.2014/In progress
12	A.Charles	Improved PID Controller Design		January 2016 In progress

3.2.1. Doctoral research – Abstract

Development of knowledge based state estimation Techniques and their application to advanced Process Control

Supervisor: Dr. Jovitha Jerome

Candidate: M.Geetha

The main focus of the thesis is to investigate the diverse real time applications of state estimation techniques integrated with soft computing techniques such as process monitoring, Classical and advanced process control (APC), and safety aspects of process industries. State estimator can be designed to generate an estimate of the state by making use of the relevant process inputs, outputs and mathematical model of the system. Continuous Stirred Tank Reactor (CSTR) and Two Tank Interacting System (TITS) play a vital role in almost all the chemical process industries that are highly interacting and nonlinear system. The quality of the final product in CSTR is reactor concentration that is not available for direct measurement in real time and cannot be controlled directly apparently using feedback configuration. Hence, design of robust estimator based APCs would be appropriate.

Hence these two systems are considered to demonstrate the efficacy of our proposed methods. Firstly, to design and implement any APCs, system model of real time CSTR temperature and level process is validated through system identification as well as first principle for simulation application. Secondly, the critical evaluation of non-linear filter configurations (EKF, UKF and Neural observer) has been done for estimation of CSTR under different operating conditions like ideal condition, model mismatch, initial state mismatch and process uncertainties to select the appropriate state estimation technique for real time APCs applications. EKF has attracted the attention of the research because of recursive nature of its computational scheme and other evaluations. Apropos of research methodology, advanced controllers based on EKF are designed and verified in co-simulation as well as in real-time environment. The designed controllers are soft computing (such as GA, PSO and ACO) based 1DoF PID and 2DoF PID, Virtual feedback control, State estimation based optimal control and predictive control, Fuzzy based fault diagnosis and a novel Sugeno fuzzy fault tolerant model predictive control. Simulation and real-time results have shown the effectiveness of proposed methods. The performance analysis and effectiveness of each APC has also been assessed using the performance index – Integral Square Error (ISE). All the research works have been published in reputed international journals (Elsevier, JEET, etc.,) and conferences like IEEE fuzzy 2013, IEEEWCCI 2014, IEEE VLSI SoC 2015. And the work was supported by UGC Major Project scheme – 2011.

3.3. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	154	-	-	-	-	-
2	GRD Instrumentation & control systems Engineering	11838	2837	3666	2	20	-

3.4. Board of studies

S.No.	Date	Agenda	External Experts
1	10.10.2015	<ul style="list-style-type: none"> Preparation of 2015 regulations BE Instrumentation and Control Engineering scheme and detailed syllabus Introduction of new electives for UG / PG Introduction of one credit courses for UG/PG. Any other related matter. Preparation of 2015 regulation for M.E. – Control System Scheme and detailed syllabus. Gist of Pre-BOS minutes Finalizing the scheme and detailed syllabus of 2015 regulations BE- Instrumentation and Control (3rd Semester to 8th Semester). 	<p><u>ANNA UNIVERSITY NOMINEE</u></p> <p>1. Dr. T. Thyagarajan, Professor, Department of Instrumentation Engineering, Madras Institute of Technology, Chennai</p> <p><u>ACADEMIC EXPERTS</u></p> <p>2. Dr. M. Umapathy Professor, Department of Instrumentation and Control Engineering, National Institute of Technology, Tiruchirappalli</p> <p>3. Dr. K. Ramakrishnan, Assistant Professor, Department of Electrical and Electronics, Engineering, Pondicherry Engineering College, Pillaichavady, Puducherry</p> <p><u>INDUSTRY EXPERT</u></p> <p>4. Mr. R. Jayakumar, Sales Competency Manager Rockwell Automation India Pvt Ltd, Kasturba Road, Bangalore</p>

S.No.	Date	Agenda	External Experts
2	02.04.2016	<ul style="list-style-type: none"> Discussion on model working manual for the courses (i) Electric Circuits and (ii) Electronic Devices and Circuits. 	PG ALUMNI 5. Mr. T. Saravanan, Project Engineer, Modeling and Simulation, Mercedes-Benz Research and Development India Private Limited, Bangalore – 560 066.

3.5. Research publication

3.5.1. Papers published in international journals

- Jayabalan Arunshankar and Elumalai Govinda Kumar, "Control of FOPDT Process Using Sliding Mode Controller with Modified PI-D Sliding Surface", *WSEAS Transactions on Systems and Control*, vol. 11, 2016, pp. 27-31. ISSN / E-ISSN: 1991-8763 / 2224-2856
- Jayabalan Arunshankar and Mangalanathan Umapathy, "Design of Multirate output feedback Controllers Based on Generalized Predictive Control", *WESAS Transactions on System and Control*, vol. 11, 2016, pp. 224 – 228. ISSN 2224-2856
- J. Arunshankar and M. Umapathy, " Simultaneous Stabilization of Piezo Actuated Structures using Fast Output Sampling Control Involving Data Fusion", *Journal of vibration Engineering and Technologies*, vol.3,no. 4, 2015, pp. 369 – 382. ISSN 2321-3558
- S.Kanthalakshmi, M.Raghapriya and R.Latha, "Fault Tolerant Control with Acceptable Performance Degradation", *ARNP Journal of Engineering and Applied Sciences*,vol. 10, no. 2, 2015, pp. 908 – 914
- J. Karthika, V. Subbiah and S. Kanthalakshmi, " Robust Distributed Generation and Storage Unit based on Co-operative Control for a DC Microgrid", *Australian Journal of Basic and Applied Sciences*, Vol. 9, No. 33, October 2015, pp. 56- 63
- Swetha R Kumar, "Vectorized quadrant model simulation and spatial control of Advanced Heavy Water Reactor in a scopus indexed", *International Journal of Engineering and Technology* Page no 22-62, vol. 7 no.6, 2016, p-ISSN : 2319-8613, e-ISSN : 0975-4024
- S Karthick, , Vinodh Kumar E, Raaja G,"APSO Based Weighting Matrices Selection of LQR Applied to Tracking Control of SIMO Jovitha Jerome System", *International Journal of smart innovation systems and Technologies*, vol. 1 , p.no.11 to 20, 2016 ISBN: 978-81-322-2537-9
- Anbarasi M P and Jovitha Jerome, "Stability analysis of Photovoltaic systems using Krasovskii's method based on the second method of Liapunov", *International Journal of Applied Engineering Research* , vol. 10, 2015 , pp. 40073-40075, ISSN 0973-4562
- Anbarasi M P and Jovitha Jerome, " Simulation of Fuzzy Logic Maximum Power Point Tracker for Standalone Photovoltaic System in MATLAB/SIMULINK Environment", *Australian Journal of Basic and Applied Sciences*, vol. 9, 2015 , pp. 776-784 ISSN 1991-8178

3.5.2. Papers published in national journals

- Raghuram T.R. and Kanthalakshmi, "Modelling ISFET PH sensing", *National Journal of Technology*, vol. 11, no. 4, 2015, pp 63-66
- Manikandan P,Geetha M,Jovitha Jerome and Natarajan S, "Integrating Wearable Low Power CMO Acquisition SoC with Decision making system for WSN applications ", *Proceedings of IEEE International Conference on VLSI-SoC-2015,Oct4-7,2015, Daejeon South Korea*, pp. 154-158
- Manikandan P, Geetha M, "Embedded Low Power Analog CMOS Fuzzy Logic Controller Chip for Industrial", *Proceedings of IEEE International Conference on VLSI – SoC-2015,Oct 4-7,20 South Korea*.pp. 43-48

3.6 Visits abroad

3.6.1 Visits by faculty

S.No.	Name of faculty	Place of visit	Period	Purpose
1.	Dr.M. Geetha Mr.S.Natarajan	Daejeon, South Korea	04.10.2015- 07.10.2015	Phd. Poster and research paper presentation in 23 rd IEEE VLSI-SoC 2015

4. STUDENT ACTIVITIES

4.1. Student strength

S.No.	Class	No. of students
1	BE I&CE – I Year	57
2	BE I&CE - II Year	71
3	BE I&CE III Year	70
4	BEI&CE IV Year	68
5	M.E Control Systems – I Year	10
6	M.E Control Systems– II Year	16

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1	Guest Lecture on “Personality development”	Mrs. Shilaja Nair, Chief Trainer, 3C’s(Confidence building, Creativity, Communication), Coimbatore	60	10.09.2015
2	Guest Lecture on “Electrical Drives”	Dr. M. Sundaram, Associate Professor, Dept. of R&AE, PSGCT,Coimbatore	65	21.09.2015
3	Guest Lecture on Advanced Instrumentation	Dr. M. Suresh, Chief Research Engineer, FCRI, Palakad	75	25.09.2015
4	Guest Lecture on “Arduino”	Mr. N. Krishnaprakash, Assistant Professor, Dept. of EEE, Amritha University, Coimbatore	80	29.09.2015

4.3 Activities of technical society – student chapter

S.No.	Society name	Topic	Chief guest & affiliation	No. of participants	Date
1	International Society of Automation, Student Section PSGCT	Kriya 2016- INSTRUGEEKS	-	35	12.02.2016- 14.02.2016
2	Instrumentation and Control Systems Engineering Association (ICEA) and International Society of Automation (ISA)	Green Business	Mr. K. Ponnusamy, General Manager (Control Systems), Seshasayee Paper & Boards Ltd., Erode	70	24.03.2016

4.4. Co-curricular and extra-curricular activities

S.No.	Nature of activity	No. of students	No. of awards
1	National Workshop on Energy Auditing	3	-
2	International Conference	16	-
3	Cultural Secretary, PSG Tech Hostels (14MO35)	1	1
4	Sports Secretary, PSG Tech Hostels (14MO31)	1	1
5	Tamil Kavithai, Haikoo (14MO11)	1	1

4.5. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1	K.Prabhu	14U436	Electrothon	First	KCT YUGAM'16 Coimbatore	11.02.2016
			Instrugeeks	First	PSG TECH KRIYA'16 Coimbatore	12.02.2016
			IDP	First	Bannari Amman Sathyamangalam	16.10.2015
2	G.Arthishri	13U201	Paper Presentation	First	CIT Interface'15 Coimbatore	11.09.2016
3	RM.Alamelu	13U206				
4	K.V.vaishnavi	13U256				
5	Varsha Anand	13U257				
6	K V Vaishnavi K	13U256	Instrugeeks	Second	PSG TECH KRIYA'16	12.02.2016
7	R Lashvanthi	13U229	Instrugeeks	Second	PSG TECH KRIYA'16	12.02.2016
8	S.Subramaniam	13U251	Crack the Track	Second	PSG TECH KRIYA'16	14.02.2016
9	Ezhil	13U221	Instrugeeks	First	PSG TECH KRIYA'16	14.02.2016
10	S.Pranesh	14U236	Raga reggae (music competiton)	Best key boardist	VIT University, Vellore	07.02.2016
11	S.Pranesh	14U236	Dhwani(light music band competiton)	First	KCT Coimbatore	11.02.2016
12	S.Pranesh	14U236	Battle of bands	First	Krishna College of Engineering and Technology, Coimbatore	28.01.2016
13	S.Pranesh	14U236	Battle of bands	First	Karpagam Academy of Higher Education, Coimbatore	29.01.2016
14	Aditya Rajendran Siva Subramaniam R Dinesh Kumar M Jagadheesvaran T S	14U203 14U247 14U211 14U216	Agrineers	Finalist	IIT Madras	26.01.2016
15	N Vishnu	14MO11	Tech Day	Best Outgoing Student	PSG Tech, Coimbatore	14.03.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
16	S Athira	14MO01	Alumni Induction	Best All Rounder Award	PSG Tech Alumni Association, Coimbatore	29.02.2016

4.6. Final year project work

4.6.1. UG project (regular)

S.No	Roll No	Name of student	Title of the project	Guide	Industry /Institute
1	12U206 12U237 13U437	Aravind Kumar M Nivas Kumar Suresh Kumar Mohammed Mudasser A	Control Strategy Design for Steam Thermal Power Plant using Yokogawa DCS	Dr.J.Arunshankar	Yokogawa India Ltd., Bangalore
2	12U210 12U223	Charithra M Kavya S	Development of Suitable Sensing Method for Measuring Fly Ash Level in Electrostatic Precipitator Hopper	Mr. P.Arunkumar	BHEL, Ranipet
3	12U236	Niranchana R	Predictive Analytics Solution for Selective Catalytic Reduction Process in Thermal Power Plant	Mr.D. Jayaprasanth	Bahwan CyberTek Pvt Ltd., Chennai
4	12U207	Athira R Alate	Development of Prototype for Incense Stick Stacking and Counting Unit	Dr.S.Kantha lakshmi	Facile Machines, Coimbatore
5	12U217	Haritha Priyadarshini G	Automation in Hydroponic System	Dr.S.Rajan	Scantech Automation, Coimbatore
6	12U253 12U255	Thirugana moorthy B Venkata Subramaniam M	Robust Eye Tracking System	Dr.K.Selva Kumar	Yantra Vision, Bangalore
7	12U219 12U238	Janaranjani P Poovarasu M	Design of Multiparameter Sensor	Dr.S.Rajan	Pricol Engineering Industries Ltd., Coimbatore
8	12U213 12U225 12U231	Gowthami V Keerthana S Musfira Sirin M	Automation of Weight Testing, Recording and Stamping in Horn Packaging Line	Mr.D.Jaya prasanth	ROOTS Industries India Ltd., Coimbatore
9	12U245 13U441	Santhiya T Sedhu Mahalakshmi M	Safety Improvement and Automated Tuning Range Measurement in Housing Assembly Stage of Horns	Mrs.T.K.Vijaya	ROOTS Industries India Ltd., Coimbatore
10	12U209 12U224 12U251 13U433	Brindha K S Keerthana S Suvarchala B Bhuvaneshwari R	Calibration Standards for LUX Meter and Thermocouple	Mr.P.Arunkumar	

S.No	Roll No	Name of student	Title of the project	Guide	Industry /Institute
11	12U235 12U243	Naveena E Sangavi Chellam T	Online Vibration Monitoring of Pumps in Tank Wagon Decantation Pump House	Dr.J.Arunshankar	Indian Oil Corporation Limited., Coimbatore
12	12U205 12U235	Arun Kumar P Naveen B S	Regeneration of Resin in ASC Vessel of Demineralised Plant using PLC	Mrs.T.K.Vijaya	NLC Ltd., Neyveli
13	12U202	Adithya Selvi N	Computational Efficiency in Business Processes	Mr. S.Karthick	Mu Sigma Business Solutions Pvt. Ltd., Bangalore
14	12U218 12U220 12U226 13U431	Harshavardhan G B Jeyasuriyakanth R Kishore N Aadiseshan	Automatic Recognition, Counting and Crate Weighing in Milk Packing Line for Efficiency Assessment	Dr.J.Arunshankar	Numax Foods Pvt. Ltd., Coimbatore
15	12U242	Sangar SI	Strategy Development for Passive Arm Senders Replacement	Dr.R.Latha	Caterpillar India Pvt Ltd., Chennai
16	12U201 12U230 12U240 13U435	Abirami V MariyaShilpa I Radhalakshmi N Kalaivani R	Smart and Secured Multi-way Control Home Automation System	Mr.D. Jayaprasanth	Vasantha Advanced Systems, Coimbatore
17	12U239	Preethi M	Universal Automotive Sensor Kit to Improve In-house Test Effectiveness	Dr. S.Rajan	Robert Bosch, Coimbatore
18	12U211 12U212 12U229 12U241	Dharani S Dheepthi R J Malavika Manoj Samyuktha K	Development of Android Application for data Logging and reporting of HVAC	Dr.M.Geetha	ZF Wind Power, Coimbatore
19	12U256	Vidhya Rohini A	Automating the Display Validation for Wheel Loaders	Dr.K.Selva Kumar	Caterpillar India Pvt Ltd., Chennai
20	13U436	Karthik R	Multi-agent Systems for Internet of Things	Mr.S.Natarajan	Robert Bosch Bangalore
21	13U432	Aravind T	Designing a Common Harness for MAN Test Bed and OBD Testing	Ms.Swetha R Kumar	Man Truck India Pvt. Ltd. Madhya Pradesh
22	12U204 12U208 12U214 12U258 12U246 12U248	Aravindh S Birathiviraj M HariBaskar L D Vijayavardhan R Sathish Kumar V Srimurugan A	Soldier Monitoring System	Ms.T.K.Vijaya	-

S.No	Roll No	Name of student	Title of the project	Guide	Industry /Institute
23	12U222 12U227 12U244 12U249 12U257	Karthikeyan R Kishore T Sankar S Sudha D Vignesh E	Design and Development of Underwater Surveillance Robot (Semi-Autonomous)	Mr.S.Natarajan	-
24	12U216 12U221 12U228 12U247	Harismitha R JothiPriya B Lokesh P Shruthi A Mani	Implementation of Maximum Power Point Tracking of PV Array using FPGA Based Controller	Dr.S.Kantha lakshmi	-
25	12U232 12U233 13U434 12U252 12U203	NandhaKumar A Narendar R Edwinraj Selvadurai P R Thamarai Kannan B Akshaya Chandiran	Automated Highway Toll Plaza using RFID	Ms.T.K.Vijaya	-
26	12U254 13U439 13U440 13U442 13U438	Vani Sri P N Prabhu K Ramani Devi R Siva Ram G Muralidhar S	Centralized Monitoring System for an Unmanned Fueling Facility	Mr.P.Arunkumar	-

4.6.2. PG project

4.6.2.1. Control System

S. No	Roll No	Name of student	Title of the project	Guide	Industry /Institute
1	14MO01	S. Athira	A hybrid clustering technique for brain tumor segmentation of MRI	Ms. T.K.Vijaya	-
2	14MO02	Canchi Vamsi Krishna	State of charge estimation in battery management systems	Dr. K.Selvakumar	L & T, Bangalore
3	14MO03	P. Dhinesh	Control of piezoelectric hydraulic pump using sliding mode controller	Dr.J.Arunshankar	-
4	14MO04	P. Komakhan Sudar Vendan	Experimental investigation on the stabilization of inverted pendulum by LMI based controller	Dr. S. Rajan	-
5	14MO05	C. Monaliza	Low power ECG acquisition and classification with Fuzzy decision making system for WBSN application	Mr. S. Natarajan	-
6	14MO06	R.L. Nisha	Total quality evaluation of tomato with disease grading and classification	Dr. S. Esakkirajan	-
7	14MO07	M. Panneer Selvam	Neural network based adaptive fault tolerant control for	Mr. D. Jayaprasanth	-

S. No	Roll No	Name of student	Title of the project	Guide	Industry /Institute
			uncertain nonlinear van der pol oscillator		
8	14MO08	R. Soundarya	Design and implementation of next generation regulator control for high frequency buck converter	Mr.P. Arun Kumar	-
9	14MO09	Surya Soman	Design of efficient automatic transmission system using lock up clutch mechanism	Dr. S. Kanthalakshmi	L & T, Bangalore
10	14MO10	M. Thangarajan	Identification and reduction of diemarks in Motor Tyre Bead wire	Ms.M.P Anbarasi	Tata Steels, Mumbai
11	14MO11	N. Vishnu	Energy optimization in surrogate building model based on stochastic gradient descent algorithm	Dr. M. Geetha	Robert Bosch, Coimbatore
12	14MO31	G. Aravind	Analysis of stability and robustness of linear controllers over various operating conditions in a ball mill circuit	Mr.P. Arun Kumar	FL Smidth, Chennai
13	14MO32	M. Guru Prasad	Power utilization strategy of fuel cell system using fstep sepic based inverter	Dr. M. Geetha	-
14	14MO33	K. Karthikeyan	Bottom dry ash handling system in coal fired thermal power stations	Mr. S. Karthik	BHEL, Trichy.
15	14MO34	J. Sonya	Vision based robotic manipulator control	Ms. T.K. Vijaya	-
16	14MO35	P. Vishnu Kumaran	Design and Implementation of Model Reference Adaptive Controller based speed control of Brushless DC Motor drive	Dr. R. Latha	-

4.7. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1	GATE	2	12U229	Malavika Manoj
			12U245	Santhiya T
2	GATE	2	14MO02	P Dhinesh
			14MO01	S Athira
3	GATE	2	15MO01	M.Chandrasekaran
			15MO02	V.Easwaran
4	TEQIP	5	15MO04	R.Janani
			15MO06	B.Keerthiveena
			15MO07	G.Nandhinipriyanka
			15MO09	R.S.Sriram
			15MO08	R.Rajeswari

4.8. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Accenture, Bangalore	9	12U201	Abirami V	3.41
			12U207	Athira R Alate	3.41
			12U211	Dharani S	3.31
			12U223	Kavya S	3.41
			12U225	Keerthana S	3.41
			12U226	Kishore N	3.41
			12U232	Nandha Kumar A	3.41
			12U244	Sankar S	3.41
			13U434	Edwinraj Selvadurai PRG	3.41
2	Mu Sigma Business Solutions, Bangalore	1	12U202	Adithya Selvi N	4.50
3	IVTL Infoview Technologies Pvt. Ltd., Chennai	4	12U205	Arun Kumar P	6.50
			12U230	Mariya Shilpa I	6.50
			12U234	Naveena B S	6.50
			12U236	Niranchana R	6.50
4	Cognizant, Chennai	5	12U208	Birathiviraj M	3.35
			12U210	Charithra M	3.35
			12U228	Lokesh P	3.35
			12U257	Vignesh E	3.35
			12U258	Vijayavardhan R	3.35
5	Asian Paints Ltd, Mumbai	2	12U209	Brindha K S	5.20
			12U242	Sangar Si	5.20
6	IBM India Pvt. Ltd., Bangalore	2	12U213	Gowthami V	3.35
			12U247	Shruthi A Mani	3.35
7	Robert Bosch, Coimbatore	3	12U214	Hari Baskar L D	4.00
			12U239	Preethi M	4.00
			12U252	Thirugnanamoorthy B	4.00
8	EmbedUR systems (India) Private Limited, chennai	1	12U219	Janaranjani P	4.00
9	Deloitte Consulting India Pvt. Ltd., Hyderabad	2	12U220	Jeyasuriyakanth R	5.50
			12U235	Naveena E	5.50
10	Voith Paper Technology (India)PVT, Kolkata	2	12U222	Karthikeyan R	3.60
			12U251	Suvarchala B	3.60
11	Tata Consultancy Services Limited., Chennai	3	12U227	Kishore T	3.30
			12U255	Venkata Subramanian M	3.30
			13U439	Prabhu K	3.30
12	Wells Fargo, Bangalore	3	12U229	Malavika Manoj	5.50
			12U231	Musfira Sirin M	5.50
			13U436	Karthik R	5.50
13	IVTL Infoview Technologies Pvt. Ltd., Chennai	4	12U230	Mariya Shilpa I	6.50
			12U234	Naveena B S	6.50
			12U236	Niranchana R	6.50
			12U205	Arun Kumar P	6.50
14	Deloitte Consulting India Pvt. Ltd., Hyderabad	2	12U235	Naveena E	5.50
			12U220	Jeyasuriyakanth R	5.50

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
15	Adani Power Ltd., Ahmedabad	1	12U238	Poovarasu M	4.10
16	Vadanta Limited, Thoothukudi	1	12U256	Vidhya Rohini A	4.50
17	Johnson Controls (I) Pvt. Ltd., Bangalore	1	13U431	Aadishesan	3.55
18	Hewlett - Packard India, Bangalore	1	13U433	Bhuvaneshwari R	3.60
19	Infosys Technologies Ltd., Bangalore	1	13U435	Kalaivani R	3.25
20	Kreatio Software Pvt Ltd., Bangalore	1	13U442	Siva Ram G	2.40
ME Placement Details					
1	TCS – Chennai	3	14MO01	Athira S	3.5
			14MO02	Vamsi Krishna C	3.5
			14MO35	Vishnu Kumaran P	3.5
2	CTS - Chennai	3	14MO05	Monaliza C	3.5
			14MO09	Surya Soman	3.5
			14MO32	Guru Prasad M	3.5
3	IBM – Bangalore	2	14MO06	Nisha R L	3.47
			14MO11	Vishnu N	3.47

4.9. Industrial training and project

4.9.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	The Signature Inn, Bengaluru, SAP University Alliances India, Bangalore	70 ,UG –VI th sem	29.01.2016 31.01.2016	Instrumentation & Control
2	Lapp Cables, Bangalore Carl Zeiss, Bangalore	71, UG – IV th sem	29.01.2016 31.01.2016	Electrical

4.9.2 Short term training

S. No	Name of company	No. of students & course	Period	Area of training
1	Flow Link Systems, Coimbatore	1 (BE-I &CE)	08.06.2015 -13.06.2015	Control Systems and Calibration

4.9.3 Internship

S.No	Name of company	No. of students & course	Period	Area of work
1	Yokogawa India Ltd., Bangalore	4 UG-8 th Sem	07.12.2015- 10.04.2016	Control Strategy Design for Steam Thermal Power Plant using Yokogawa DCS
2	BHEL, Ranipet	2 UG-8 th Sem	14.12.2015- 07.03.2016	Development of Suitable Sensing Method for Measuring Fly Ash Level in Electrostatic Precipitator

S.No	Name of company	No. of students & course	Period	Area of work
3	Bahwan CyberTek Pvt Ltd., Chennai	1 UG-8 th Sem	07.12.2015- 10.04.2016	Predictive Analytics Solution for Selective Catalytic Reduction Process in Thermal Power Plant
4	Facile Machines, Coimbatore	1 UG-8 th Sem	11.12.2015- 31.04.2016	Development of Prototype for Incense Stick Stacking and Counting Unit
5	Scantech Automation, Coimbatore	1 UG-8 th Sem	11.12.2015- 31.04.2016	Automation in Hydroponic System
6	Yantra Vision, Bangalore	3 UG-8 th Sem	11.12.2015- 31.04.2016	Robust Eye Tracking System
7	Pricol Engineering Industries Ltd., Coimbatore	2 UG-8 th Sem	02.12.2015- 31.04.2016	Design of Multiparameter Sensor
8	ROOTS Industries India Ltd., Coimbatore	3 UG-8 th Sem	15.12.2015- 31.04.2016	Automation of Weight Testing, Recording and Stamping in Horn Packaging Line
9	ROOTS Industries India Ltd., Coimbatore	2 UG-8 th Sem	01.12.2015- 30.03.2016	Safety Improvement and Automated Tuning Range Measurement in Housing Assembly Stage of Horns
10	ROOTS Industries India Ltd., Coimbatore	2 UG-8 th Sem	01.12.2015- 30.03.2016	Calibration Standards for LUX Meter and Thermocouple
11	Indian Oil Corporation Limited., Coimbatore	2 UG-8 th Sem	04.12.2015- 31.01.2016	Online Vibration Monitoring of Pumps in Tank Wagon Decantation Pump House
12	NLC Ltd., Neyveli	2 UG-8 th Sem	04.01.2016- 26.03.2016	Regeneration of Resin in ASC Vessel of Demineralised Plant using PLC
13	Mu Sigma Business Solutions Pvt. Ltd., Bangalore	1 UG-8 th Sem	21.01.2016- 21.06.2016	Computational Efficiency in Business Processes
14	Numax Foods Pvt. Ltd., Coimbatore	4 UG-8 th Sem	16.12.2015- 31.03.2016	Automatic Recognition, Counting and Crate Weighing in Milk Packing Line for Efficiency Assessment
15	Caterpillar India Pvt Ltd., Chennai	2 UG-8 th Sem	01.12.2015- 30.04.2016	Strategy Development for Passive Arm Senders Replacement
16	Vasantha Advanced Systems, Coimbatore	4 UG-8 th Sem	01.12.2015 -30.04.2016	Smart and Secured Multi-way Control Home Automation System
17	Robert Bosch, Coimbatore	1 UG-8 th Sem	24.12.2015 -30.03.2016	Universal Automotive Sensor Kit to Improve In-house Test Effectiveness
18	ZF Wind Power, Coimbatore	4 UG-8 th Sem	01..01.2016- 31.03.2016	Development of Android Application for data Logging and reporting of HVAC
19	Robert Bosch, Bangalore	1 UG-8 th Sem	24.12.2015- 31.05.2016	Multi-agent Systems for Internet of Things
20	Man Truck India Pvt. Ltd., Madhya Pradesh	1 UG-8 th Sem	06.01.2016 -31.03.2016	Designing a Common Harness for MAN Test Bed and OBD Testing

S.No	Name of company	No. of students & course	Period	Area of work
21	Robert Bosch, Coimbatore	1 PG-4 th Sem	Dec 2015- May 2016	Home Automation
22	L & T, Bangalore	2 PG-4 th Sem	Jan 2016- May 2016	Battery Management, Automatic Transmission System in Automobiles
23	Tata Steels, Mumbai	1 PG-4 th Sem	Jan 2016- May 2016	Identification of cable fault
24	FL Smidth, Chennai	1 PG-4 th Sem	Dec 2015 -May 2016	System Identification and Control
25	BHEL, Trichy	1 PG-4 th Sem	Dec 2015 -May 2016	Improving efficiency in fly ash control

4. 10. No. of students passed out

Year	UG	PG	Year	UG	PG
2008	-	14	2013	63	17
2009	-	14	2014	63	18
2010	-	17	2015	67	16
2011	61	17	2016	65	16
2012	62	14			

4.11. Alumni Achievements

S.No.	Name of Alumnus/Batch	Achievement/Award	Awarded by	Period
1	Ms.P.Janaranjani B.E, I&CE, 2016	Best outgoing Alumni Award	PSG Tech. Alumni Association	2016
2	Mr.S I. Sankar B.E, I&CE, 2016	Best All Rounder Award	PSG Tech Alumni Association ,Coimbatore	2016
3	Mr. N Vishnu // M.E- Control System 2016	Best outgoing Alumni Award	PSG Tech. Alumni Association, Coimbatore	2016
4	Ms. S Athira // M.E- Control System 2016	Best All Rounder Award	PSG Tech Alumni Association, Coimbatore	2016

5. SUMMARY

S. No	Activity	No.	
1	National conferences conducted	1	
2	Workshops conducted	4	
3	Short-term training programs conducted	2	
4	Scholars pursuing doctoral research	7	
5	Papers published in international journals	9	
6	Papers published in National journals	3	
7	Awards won by students	16	
8	Students passed out during 2015-16	UG	65
		PG	16
9	No. of. students passed out till date	UG	381
		PG	143

DEPARTMENT OF MECHANICAL ENGINEERING

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was established with an undergraduate programme in Mechanical Engineering in the year 1951. Masters Degree programmes in Engineering Design, Industrial Engineering, Computer Integrated Manufacturing, Energy Engineering, and Lean Manufacturing were started during the years 1962, 1978, 1991, 1999 and 2007 respectively. B.E. (Mechanical) – Sandwich programme was started in the year 1983.

The department is approved for carrying out research leading to Ph.D. and MS (by research) degrees (Full time and Part time) affiliated to Anna University, Chennai. The department also offers full time Ph.D. and M.E. programmes under Quality Improvement Programme (QIP) of AICTE, for the faculty members of various engineering colleges and engineers working in government organizations in the country.

The department is well-equipped with advanced laboratories like TIFAC-CORE Product Development Centre, Festo-PSG Training Centre for Pneumatic Automation, Engineering Design Centre, etc. The department maintains a close liaison with a large number of universities and industries within and outside the country, through collaborations and research projects. The department offers consultancy in design, manufacturing processes and design and testing of a range of products as per BIS specifications. Right from the start, thrust has been given to practical and industry oriented research and development. This ensured a continuous interaction with industry altogether.

The B.E-Mechanical programme (4 years), started in the year 1951, is one of the preferred undergraduate programmes by the student community of Tamil Nadu. With a right blend of theory and practice in basics such as mechanics, design of machines, manufacturing engineering, industrial engineering, advancements in CAD/CAM, finite element analysis, thermal engineering and pneumatics and low cost automation, this programme has well laid itself as a prominent option for the students. The B.E-Mechanical sandwich programme (5 years) started in the year 1983, is the only one of its kind in India. The objective of this programme is to mould students having the theoretical background of an engineer with intensive exposure to the industrial environment. The five year in-plant training includes visits to different industries, orientation towards industrial practices, and a comprehensive executive skill development.

The M.E. Engineering Design programme, started in the year 1962, emphasises on Design and Analysis of Mechanical Systems, Finite element analysis of systems, Composite structures, Failure analysis and design of machine members etc. The M.E- Industrial Engineering programme, started in the year 1978, emphasises on Operations management, Supply chain management, Total quality management, Lean manufacturing, Manufacturing simulation, etc. The above aspects are expected to mould a post graduate engineer into a field expert who can redesign the manufacturing systems with higher productivity and quality. The M.E (Industrial Engineering) Programme is also offered in the part time mode to facilitate practicing engineers in and around Coimbatore to enrich their knowledge.

The M.E. Computer Integrated Manufacturing programme, started in the year 1991, emphasises on the use of computers to aid the design and manufacturing activities in manufacturing industries. Other aspects covered in this programme include CAD/CAM interface, CNC programming, Rapid prototyping, and Simulation of Manufacturing systems.

The M.E. Energy Engineering was started in the year 1999 with a commitment to excel in education and research. The post-graduate programme in Energy Engineering is offered to the graduate students in order to make them competent to undertake energy related activities. The major areas in which the programme concentrates are Energy audit, Environmental engineering, Renewable

energy sources and systems, Energy management information systems, Industrial energy conservation, and management and CFD analysis for energy efficient system design.

The M.E. Lean Manufacturing started in the year 2006 aims to enhance the traditional engineering skills with the lean methodology and analysis techniques. It also provides the students with management skills to complement their technical ability by enabling the student to take a broader perspective on manufacturing industry as a whole and and at the detailed level of the manufacturing operations.

The courses offered in the different programmes are periodically updated to incorporate the current requirements of the industry and advancements in technology. The areas in which research work is in progress are: Machine tool engineering, Wear analysis and Surface engineering, Gear engineering, Rapid prototyping, Systems simulation, Finite element analysis, Cryogenic technology, Computational fluid dynamics, Computational heat transfer, Tolerance analysis, High speed machining, Supply chain management, and Composite materials.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.K.Natarajan, Ph.D Professor and Head	knr@mec.psgtech. ac.in	1993	CIM, Design for manufacture and assembly
2	Dr.P.R.Thyla, Ph.D Associate Professor	prt@mec.psgtech.ac.in	1988	Machine design, Tribology, Finite element analysis
3	Dr.S.Balachandran, Ph.D, Professor	essbee48@yahoo.co.in	2000	Energy engineering, Chemical engineering
4	Dr.G.Sundararaj, Ph.D Associate Professor	gsr@mec.psgtech.ac.in	1992	Manufacturing, Instrumentation
5	Dr.V.Prabhu Raja, Ph.D Associate Professor	vpr@mec.psgtech.ac.in	1997	Machine design, Finite element analysis, High speed machining
6	Dr.A.R.Lakshmanan, Ph.D Associate Professor	arl@mec.psgtech.ac.in	1988	Kinematics of machinery, Operations research, Engineering economics
7	Dr.S.P.Vendan, Ph.D Associate Professor	spv@mec.psgtech.ac.in	1991	Thermal sciences
8	Mr.C.Manoharan, M.E Associate Professor	cmn@mec.psgtech. ac.in	1994	Welding, Robotics, Pneumatic automation
9	Dr.K.Ragu, Ph.D Associate Professor	kru@mec.psgtech.ac.in	1997	Fluid mechanics, Tool design, Design for manufacturing and assembly
10	Dr.R.Velavan, Ph.D, Associate Professor	vel@egy.psgtech.ac.in	2003	Energy engineering, GHG mitigation
11	Dr.K.Ganesan, Ph.D Associate Professor	kgn@mec.psgtech.ac.in	2010	Design for manufacturing, Tolerance design
12	Dr.A.Ramesh Babu, Ph.D Associate Professor	arb@mec.psgtech.ac.in	2010	Manufacturing engineering
13	Dr.Gukan Rajaram, Ph.D Associate Professor	grm@mec.psgtech. ac.in	2008	Fuel cells, Material characterization
14	Dr.D.Rajenthirakumar, Ph.D Associate Professor	drk@mec.psgtech.ac.in	2004	Production engineering, Lean manufacturing

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
15	Dr.J.Kanchana, Ph.D Associate Professor	jkp@mec.psgtech.ac.in	2012	CAD / CAM, CIM, CNC, Robotics, Micro and nano machining
16	Dr.M.Ramu, Ph.D Associate Professor	mru@mec.psgtech.ac.in	2005	CAD/CAM,FEA, Vibration engineering
17	Dr.S.Syath Abuthakeer,Ph.D Assistant Professor(Sr.Gr)	ssa@mec.psgtech.ac.in	2006	CIM, Flexible manufacturing systems, TQM, Machining technology
18	Mr.R.Prakash, M.E Assistant Professor(Sr.Gr)	rpk@mec.psgtech.ac.in	2008	Manufacturing technology, Design of jigs, fixtures and press tools, TQM, Machine tools
19	Mr.P.Nallasamy, M.E Assistant Professor(Sr.Gr)	pns@mec.psgtech.ac.in	2009	Design, Tribology
20	Mr.N.Ganesh Kumar, M.E Assistant Professor(Sl.Gr)	gkncbe@yahoo.com	2010	Quality assurance, Lean management
21	Dr.K.Punitharani, Ph.D Assistant Professor	kpr@mec.psgtech.ac.in	2004	Thermal sciences, Welding technology
22	Dr.R.Jayachitra, Ph.D Assistant Professor	rjr@mec.psgtech.ac.in	2004	Simulation of manufacturing systems, CIM, operations research
23	Dr.A.P.Senthil Kumar, Ph.D Assistant Professor	aps@mec.psgtech.ac.in	2005	Thermal sciences, Heat transfer
24	Dr.M.Yuvaraja, Ph.D Assistant Professor	myr@mec.psgtech.ac.in	2006	CAD/CAM, Geometric modeling, Vibration engineering
25	Mr.C.Shanmugam, M.E Assistant Professor	csn@mec.psgtech.ac.in	2007	Design, Machining, Automation
26	Mr.V.Vijayakumar, M.E Assistant Professor	vvk@mec.psgtech.ac.in	2008	Manufacturing, Composites and hydraulics
27	Mr.D.Shanmuga Sundaram, M.E Assistant Professor	dss@mec.psgtech.ac.in	2008	Computer aided design
28	Mr.A.Prabhukarthi, M.E Assistant Professor	apk@mec.psgtech.ac.in	2009	Lean manufacturing, Composite material
29	Mr.K.Sadesh, M.E Assistant Professor	ksd@mec.psgtech.ac.in	2009	Manufacturing engineering
30	Dr.S.Babu, M.E., Assistant Professor	sba@egy.psgtech.ac.in	2009	Energy engineering, Aerodynamics of wind turbine, Solar collectors
31	Mr.R.Sridhar, M.E Assistant Professor	sri@mec.psgtech.ac.in	2009	Manufacturing engineering, Lean manufacturing
32	Dr.S.Udhayakumar, Ph.D Assistant Professor	suk@mec.psgtech.ac.in	2012	Manufacturing, FEA, Welding, Robotics
33	Mr.T.Karthik, M.E Assistant Professor	tkt@mec.psgtech.ac.in	2009	Automobile engineering, Lean manufacturing
34	Mr.D.Martin Suresh Babu, M.E Assistant Professor	msb@mec.psgtech.ac.in	2010	Engineering design, Fluid mechanics, CFD, Thermal science

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
35	Mr.V.Vijay Anand, M.E Assistant Professor	svj@mec.psgtech.ac.in	2010	Manufacturing systems, Lean manufacturing, Six sigma
36	Mr.A.S. Prasanth, M.S Assistant Professor	asp@mec.psgtech. ac.in	2010	Lean Manufacturing, Fluid mechanics
37	Mr.M.Parthiban, M.E Assistant Professor	mpn@mec.psgtech.ac.in	2011	Metrology, Quality control and machining, ERP
38	Mr.P.Govindaraj, M.E Assistant Professor	pgr@mec.psgtech.ac.in	2012	Engineering design, Industrial safety and Piping design
39	Mr.R.Jegathish Kumar, M.Tech Assistant Professor	rjk@ mec.psgtech.ac.in	2014	Fluid mechanics, Thermal engineering, Heat transfer
40	Dr.K.Krishnamoorthy, Ph.D Professor	kkn@mec.psgtech.ac.in	2012	Engineering design
41	Mr.V.Satish Chandran, M.E Assistant Professor (Sr. G)	vsc@mec.psgtech.ac.in	2012	Design of mechanical systems and analysis, Simulators – training systems
42	Mr.N.Mathimurugan, M.E Assistant Professor	nma@mec.psgtech.ac.in	2012	Manufacturing, Jeweler manufacturing, Rapid prototyping
43	Mr.R.Venkatesh, M.E Assistant Professor	rve@mec.psgtech.ac.in	2012	Thermal and Fluid Sciences
44	Mr.R.Arun Kumar , M.E Assistant Professor	rak@mec.psgtech.ac.in	2012	Thermal and fluid sciences
45	Mr.K.Sripriyan, M.E Assistant Professor	ksp@mec.psgtech.ac.in	2013	Manufacturing engineering
46	Dr. T.Prabhu, Ph.D Associate Professor	tpr@mec.psgtech.ac.in	2013	CFD, Thermal, Fluid, Energy Engineering
47	Mr.M.Kalayarasan, M.E Assistant Professor	gmk@mec.psgtech.ac.in	2013	Tribology, Biomechanics, Biomaterials, FEM
48	Mr.P.Dhanabal, M.E Assistant Professor	pdb@mec.psgtech.ac.in	2013	FEM, Composite materials, Fluid power systems
49	Mr.S.Mohanraj, M.E Assistant Professor	smr@ mec.psgtech.ac.in	2013	Robotics, Mechatronics, Finite element analysis
50	Mr.A.Adhiyaman. M.E Assistant Professor	aam@mec.psgtech. ac.in	2013	Design, Manufacturing, RPT
51	Ms.B.Vaishnavi, M.E Assistant Professor	vaishmts@gmail.com	2013	Mechatronics, Rapid prototyping
52	Mr.S.Vijay, M.E Assistant Professor	svj@ mec.psgtech.ac.in	2013	Industrial engineering, Simulation and modeling
53	Mr.P.Viswanathan, M.E Assistant Professor	pvn@mech.psgtech. ac.in	2014	CFD, Energy Engineering, Wind turbine
54	Mr.S.Bala Vignesh M.Des Assistant Professor	s.balavignesh@yahoo.in	2015	New product design
55	Mrs.S.Janaki M.E Assistant Professor	Jankis.cbe@gmail.com	2016	Industrial engineering, Manufacturing, CNC

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mr.V.Vijayakumar	Ph.D	2009, Ongoing
2	Mr.R.Prakash	Ph.D	2010, Ongoing
3	Mr.P.Nallasamy	Ph.D	2010, Ongoing
4	Mr.K.Sadesh	Ph.D	2010, Ongoing
5	Mr.A.Prabhukarthi	Ph.D	2010, Ongoing
6	Mr.N.Ganesh Kumar	Ph.D	2011, Ongoing
7	Mr.D.Shanmuga Sundaram	Ph.D	2011, Ongoing
8	Mr.D.Martin Sureshababu	Ph.D	2011, Ongoing
9	Mr.V.Vijay Anand	Ph.D	2011, Ongoing
10	Mr.M.Parthiban	Ph.D	2011, Ongoing
11	Mr. C.Shanmugam	Ph.D	2012, Ongoing
12	Mr.R.Sridhar	Ph.D	2012, Ongoing
13	Dr.S.Babu	Ph.D	2015, Completed
14	Mr.N.Mathimurugan	Ph.D	2012, Ongoing
15	Mr.R.Venkatesh	Ph.D	2014, Ongoing
16	Mr.P.Govindaraj	Ph.D	2013, Ongoing
17	Mr.R.Arunkumar	Ph.D	2014, Ongoing
18	Mr.K.Sripriyan	Ph.D	2014, Ongoing
19	Mr.M.Kalaiarasan	Ph.D	2013, Ongoing
20	Mr. P.Dhanabal	Ph.D	2014, Ongoing
21	Mr.S.Mohanraj	Ph.D	2014, Ongoing
22	Mr.A.Adhiyamaan	Ph.D	2014, Ongoing
23	Mr.S.Vijay	Ph.D	2015,Ongoing
24	Mrs.S.Janaki	Ph.D	2012, Ongoing

2.2 Conference / Courses conducted by Faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr.P.R.Thyla Mr.K. Sripriyan, Mr.P. Dhanabal	Workshop on “Creativity and Innovation” and How to become a more Creative Engineer Researcher”	Bharat Fritz Werner Ltd, Bangalore	24.07.2015
2.	Dr.K.Ragu Mr.C.Shanmugam	Geometric Dimensioning and Tolerancing for Engineers	M/s.Ashok Leyland , Chennai	09.07.2015
3.	Dr.K.Natarajan Dr.J.Kanchana Dr.D.Rajenthira kumar Dr.M.Ramu	International conference on “Productivity Efficiency and Competitiveness in Design and Manufacturing”	-	07.01.2016- 09.01.2016
4.	Dr.K.Natarajan Dr.M.Ramu Mr.R.Sridhar	Training programme on “Overview of Mechanical Engineering” for the executives of M/s Robert Bosch, Coimbatore	-	06.07.2015- 10.07. 2015

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
5.	Dr.G.Sundararaj	Workshop on "Value Engineering Approach"	Defence Research and Development Laboratory, Hyderabad	09.07.2015
6.	Mr.D.Martin Suresh babu Mr.C.Shanmugam	Work shop on "Engineering Critical Thinking with Practical Applications"	-	11.08.2015- 14.08.2015
7.	Dr.V.Krishnaraj Mr.M.Parthiban	Workshop on CMM Applications on GD & T	-	08.08.2015
8.	Dr.S.Udhayakumar and Mr.K.Sadesh	One day workshop on "Sensor Interface"	-	22.08.2015
9.	Dr.T.Prabu Mr.P.Viswanathan	Seminar on "Design and Simulation of Heat Exchanger"	-	04.12.2015
10.	Dr. K.R Ravi Mr. A. Adhiyamaan	Seminar on "Additive Manufacturing: Past, Present and Future"	PSG Institute of Advanced Studies, Coimbatore	22.12.2015
11.	Dr.V.Prabhu Raja Mr.P.Dhnapal Mr.M.Kalayarasan Mr.S.Mohanraj	Three day training programme on "Durability Assessment and Crack Growth Simulation using FEM"	-	11.01.2016- 13.01.2016
12.	Mr.C.Manoharan Dr.S.Udhayakumar Mr.K.Sadesh	Pneumatic workshop cum circuit design contest	-	12.03.2016- 13.03.2016
13.	Dr. R. Velavan Dr. S. Babu	Workshop on Sustainable Bio-Resources	BioAcademy Ltd, Finland	22.02.2016
14.	Dr.S.Udhayakumar Mr.K.Sadesh	Workshop on "SENSORICS"	-	12.02.2016- 13.02.2016
15.	Dr.G.Sundararaj Mr.R.Prakash	ABT – PSG Tech Workshop on "Brainstorming for Challenges Ahead"	-	05.03.2016 & 25.05.2016
16.	Dr.S.Udhayakumar Mr.K.Sadesh	Workshop on "Sensor Interface and Integration for R&D work"	-	29.04.2016- 30.04.2016
17.	Mr.R.Sridhar Ms.S.Janaki	Training programme on "Motivation, Work, Culture and Time Management" for technical staff	-	23.03.2016
18.	Dr K Natarajan Dr V Prabhu Raja Dr A Ramesh Babu Mr D Martin Sureshbabu Mr R Jegathish kumar	Sixth National Conference on Manufacturing and Innovation Strategies and Appealing Advancements	-	22.04.2016
19.	Dr K Natarajan Dr S Udhayakumar Dr M Yuvaraja Mr A S Prasanth	Third National Conference on "Energy Efficient Mechanical System Design and Manufacturing" EMSDM 2016	-	22.04.2016

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
20.	Dr.R.Velavan Dr.S.Babu	Seventh National Conference on "New and Renewable Energy Technologies"	-	22.04.2016
21.	Dr.V.Krishnaraj Mr.M.Parthiban	workshop on "CMM Applications on GD & T"	-	14.05.2016
22.	Mr.V.Vijayanand Mr.A.S.Prasanth Mr.S.Vijay	workshop on "Value Engineering for Global Competitiveness"	-	23.04.2016

2.3 Conference/Workshop/Training programme attended by faculty

S.No.	Name of Faculty	Title of Programme	Organizer	Period
1	Mr.C.Manoharan Dr.K.Ragu Dr.K.Punitharani Dr.S.Udhayakumar Mr.R.Sridhar Dr.S.Syath Abuthakeer Mr.C.Shanmugam Mr.K.Sadesh Mr.S.Babu Mr.M.Kalayarasan, Mr.S.Mohanraj Mr.P.Dhanabal	AICTE Sponsored Summer Winter school scheme on "Automobile Engineering-Recent Innovations in Engines, Power Train, Emission Measurement and Alternate Fuels"	Department of Automobile Engineering, PSGCT	07.06.2015-20.06.2015
2	Dr.R.Velavan Dr.T.Prabhu Dr.K.Punitha Rani Dr.A.P.Senthilkumar Mr.S.Babu Mr.D.Martin Suresh Babu Mr.P.Viswanathan Mr.R.Jagathishkumar Mr.S.Bala Vignesh	Training /Demo of the newly commissioned steam boiler and turbine	Workshop-PSGCT	24.06.2015
3	Mr.D.Rajenthirakumar	Micromanufacturing	IIT Kanpur	29.06.2015-03.07.2015
4	Mr.S.Babu	International Conference on "Advanced Materials and Manufacturing Processes for Strategic Sectors" (ICAMPS 2015)	Indian Institute of Metals, Trivandrum	13.05.2015-15.05.2015
5	Dr.G.Sundararaj	Development of Value Engineering Methodology to optimize the manufacturing of precision aerospace gear	DRDL, Hyderabad	03.07.2015
6	Mr.P.Nallasamy Mr.K.Sadesh Mr.A.Prabhukarthi Mr.C.Shanmugam	Workshop on "Research Enhancement"	Computer Applications, PSG CT Coimbatore	23.07.2015

S.No.	Name of Faculty	Title of Programme	Organizer	Period
	Mr.N.Mathimurugan Mr.P.Govindaraj Mr.M.Kalayarasan Mr. P.Dhanabal			
7	Mr.S.Martin Suresh Babu Mr.A.Prabhukarthi Mr.D.Shanmguasundaram Mr.C.Shanmguam Mr.M.Kalayarasan Mr.S.Mohanraj Ms.B.Vaishnavi Mr.S.Bala Vignesh Mr.R.Jegadeesh Kumar	Workshop on “Creativity and Innovation: How to beome a more Creative Engineer Researcher “	Department of Mechanical Engineering, PSG CT, Coimbatore	24.07.2015
8	Dr.V.Prabhu Raja	Autodesk Education Summit at Mumbai	Autodesk India, Bangalore	06.08.2015 – 07.08.2015
9		Workshop on “Cast it right the first time” at Coimbatore	Design Tech Systems Ltd, Pune	26.08.2015
10	Dr.D.Rajenthirakumar Mr.R.Sridhar	The Indian Institue of Metals – Natinal Metallurgists Day 69 th Annual Technical meeting	Department of Metallurgical Engineering, PSG CT	13.11.2015-16.11.2015
11	Dr.V.Prabhu Raja	Spatial Visualization	PSG CARE PSG CT	04.12.2015
12	Mr.S. Balavignesh	Workshop on Creative Teaching – using Bloom’s Taxonomy	PSG CARE PSG CT	12.12.2015
13	Mr.V.Vijayanand	PMV Live EXPO and PMI Workshop	PMI Institute, UAE Chapter Dubai World Trade Center , Dubai	23.11.2015-26.11.2015
14	Dr.J.Kanchana Ms.B.Vaishnavi	National Aerospace Manufacturing Seminar (NAMS 2015) Tiruvananthapuram	ISRO, Tiruvananthapuram	27.11.2015-28.11.2015
15	Dr.K.Natarajan	Half day programme on “Strategy for Higher Education”	PSG CARE, PSG CT	30.01.2016
16	Mr.P.Nallasamy Mr.D.Martin Suresh Babu Mr.A.S.Prasanth Mr.B.Vaishnavi Mr.S.Mohanraj Mr.M.Kalaiarasan Mr.P.Govindaraj Mr.V.Vijayanand Dr.M.Yuvaraj Mr.C.Shanmugam Dr.J.Kanchana Dr.M.Ramu	Faculty Development Programme on “Role of Visual Perception Ability in Learning – Spatial Visualization”	PSG CARE, PSG CT	04.12.2015

S.No.	Name of Faculty	Title of Programme	Organizer	Period
	Mr.D.Shanmuga Sundaram Mr.R.Prakash Mr.K.Sadesh			
17	Dr.A.P.Senthilkumar	Nanostructured Carbon Doped Nanocomposites for Energy Storage Applications	IIT, Kanapur	11.01.2016-15.01.2016
18	Mr.A.S.Prasanth Mr.M.Kalayarasan	TEQIP II sponsored Train – The Trainers Programmes for the Anna University, NASSCOM Foundation Skills Integrated Product Development (FSIPD)	PSG CT	19.01.2016-23.01.2016
19	Dr.V.Prabhu Raja Dr.J.Kanchana Mr.P.Nallasamy Mr.D.Martin Suresh Babu Mr.A.S.Prasanth Mr.B.Vaishnavi Mr.S.Mohanraj Mr.M.Kalaiarasan Mr.P.Govindaraj Mr.V.Vijayanand Mr.S.Balavignesh Mr.D.Shanmugasundaram Mr.P.Dhanabal	Workshop on Spatial Visualization	PSG CARE, PSG CT	23.01.2016
20	Mr.C.Shanmugam Mr.K.Kalayarasan Mr.S.Mohanraj Mr.P.Dhanabal Mr.K.Sripriyan	Three day training programme on “Durability Assessment and Crack Growth Simulation using FEM”	Department of Mechanical Engineering, PSG CT, Coimbatore	11.01.2016-13.01.2016
21	Mr.K.Sadesh	Symposium on “Teaching learning in Higher Technical Education”	IIT Madras, Chennai and SPFU, Tamil Nadu Directorate of Technical Education	22.01.2016-23.01.2016.
22	Mr.S.Bala vignesh	International Conference on “Transformation in Engineering Education”	Indo US Collaboration for Engineering Education, Pune	08.01.2016-12.01.2016
23	Dr.S.Syath Abuthakeer	Sound and Vibration Applications	Josts - B & K	18.02.2016
24	Dr.K.Ragu Dr.T.Prabu	Technology upgradation for Indian Pumps Sector	SIEMA, Coimbatore	23.02.2016
25	Dr.T.Prabu Mr.C.Shanmugam Mr.P.Govindaraj Mr.R.Jegathish Kumar	Training programme on ANSYS – CFD	Department of Computer Applications, PSG CT	22.02.2016-23.02.2016

S.No.	Name of Faculty	Title of Programme	Organizer	Period
26	Dr.S.Syath Abuthakeer Mr.K.Sadesh Mr.C.Shanmugam Mr.P.Govindaraj Mr.K.Sripriyan Mr.M.Kalayarasan Mr.P.Dhanabal Mr.S.Mohanraj	Training programme on ANSYS – Structural Analysis	Department of Computer Applications, PSG CT	22.02.2016- 23.02.2016
27	Dr.T.Prabu Mr.P.Viswanathan	ACREX INDIA 2016	ISHRAE, Mumbai	25.02.2016- 27.02.2016
28	Dr.V.Prabhu Raja	Further Education Leadership Development Programme	AICTE-British Council, New Delhi	18.03.2016- 19.03.2016
29	Mr.P.Govindaraj Mr.P.Dhanabal	Train the Trainers programme on Foundation Skills in Integrated Product Development	Anna University, NASSCOM	26.03.2016- 30.03.2016
30	Mr.R.Jegathish Kumar Mr.S.Bala Vignesh Mrs.S.Janaki	SPSS software	PSG Institute of Management, Coimbatore	12.02.2016- 13.02.2016
31	Mr.R.Prakash Ms.B.Vaishnavi	One day training program on COMSOL Multiphysics	National MEMS Design Centre PSG CT	12.02.2016
32	Mr.V.Vijayand	Two day workshop on Sustainable Farming	PSG Institute of Management, Coimbatore	28.01.2016- 30.01.2016
33	Dr.K.Ragu Dr.A.Ramesh Babu Dr.J.Kanchana Dr.D.Rajenthirakumar Dr.M.Ramu Dr.K.Punitharani Dr.R.Jayachitra Dr.A.P.Senthilkumar Dr.S.Udhyakumar Dr.S.Syath Abuthakeer Dr.M.Yuvaraja	Half day session on “Funding Opportunities and Writing Eeffective Proposals for Research Funds”	PSG CARE	08.02.2016
34	Dr.M.Ramu	Audit on Preparation of NBA document and procedures	Department of Mechatronics Engineering, Sri Krishna College of Engineering and Technology, Coimbatore	19.05.2016
35	Dr.K.Punitharani	Energy Resources Management in Current Scenario	Government College of Technology, Coimbatore	04.04.2016- 11.04.2016

S.No.	Name of Faculty	Title of Programme	Organizer	Period
36	Dr.R.Jayachitra Mr.S.janaki	One day workshop on Sustainability and Sustainable Supply Chain Management	Department of Management Studies, IIT Madras	18.04.2016
37	Mr.V.Satish Chandran Mr.S.Bala Vignesh	One day workshop on Google Moodle	PSG Institute of Management Coimbatore	22.04.2016
38	Mr.P.Govindaraj Mr.R.Venkatesh Mr.R.Arunkumar Mr.A.Adhiyamaan Ms.B.Vaishnavi	One day workshop on Outcome Based Education	Educational Technology Centre, PSG CT	30.04.2016
39	Mr.A.S.Prasanth Mr.M.Kalairasan Mr.S.Vijay Mr.R.Jegathish Kumar Mr.S.Bala Vignesh	Guest Lecture on Innovation in industry	PSG Institute of Management Coimbatore	03.05.2016

2.4 Special lectures delivered by the faculty

S.No	Faculty	Title of programme	Topic	Organizer	Date
1	Dr K Natarajan	Training programme on "Overview of Mechanical Engineering" for the executives of M/s Robert Bosch, Coimbatore	GD & T	Department of Mechanical Engineering	06.07.2015
2	Dr.M.Ramu		Design for static and dynamic loading		
3	Mr.R.Sridhar		Engineering Mechanics-I		
4	Mr.P.Nallasamy		Strength of materials-I		
5	Dr PR.Thyla		Theory of Machines		07.07.2015
6	Mr C.Shanmugam		Theory of Machines		07.07.2015
7	Dr.Gukan Rajam		Material Science-I		07.07.2015
8	Dr.K.Ragu		Fluid Mechanics		07.07.2015
9	Mr.Martin Suresh Babu		Numerical Techniques		08.07.2015
10	Dr.Gukan Rajam		Material Science-II		08.07.2015
11	Dr.T.Prabhu		Heat Transfer & I.C.Engines		08.07.2015
12	Mr.P.Nallasamy		Strength of materials-II		09.07.2015
13	Dr.K.Krishnamurthy		Engineering Mechanics-II		09.07.2015
14	Dr.M.Yuvaraja		Vibration Engineering		10.07.2015
15	Dr V.Prabhu Raja		Failure theories		10.07.2015

S.No	Faculty	Title of programme	Topic	Organizer	Date
16	Dr.V.Prabhu Raja	Guest Lecture	One day workshop on "Finite Element Analysis"	Sri Krishna College of Engineering and Technology, Coimbatore	04.07.2015
17	Dr.V.Prabhu Raja	Guest Lecture	Design for static and variable loading	Kumaraguru College of Technology Coimbatore	11.09.2015
18	Dr.V.Prabhu Raja		Research Approaches in Design of Mechanical Systems – Recent Trends		30.09.2015
19	Dr.V.Prabhu Raja		Research Methodology for Engineers		12.10.2015
20	Dr.V.Prabhu Raja	AICTE sponsored QIP short term course on "Computational methods in Heat transfer and fluid flow"	Thermal considerations in high-speed spindle design, Thermo-mechanical modeling and analysis using FEM	Coimbatore Institute of Technology, Coimbatore	06.12.2015
21	Dr.G.Sundararaj	Training programme on Value Engineering Programme	Value Engineering Tools Application of Special Techniques like FCWA and its features	DRDL, Hyderabad	09.07.2015
22	Dr.G.Sundararaj	Training programme on Value Engineering Programme	Application of Value Engineering to Aerospace System Case Study on AKASH ROCKET Motors casing fabrication	DRDL, Hyderabad	09.07.2015

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr.K.Natarajan	Member, Board of studies	Annamalai University, Chidambaram
		Member, Academic council & Affiliation Committee	Anna University, Chennai
		Member, Managing Committee	The Southern India Engineering Manufacturer's Association, Coimbatore
2	Dr. P. R. Thyala	Member, Board of studies	K S R College of Technology, Tiruchengode
		Member, Advisory Committee	G R G Polytechnic college, Coimbatore
3	Dr.V.Prabhu Raja	Academic Council Nominee	Board of Studies (UG), Adiyamaan College of Engg., Hosur

S.No.	Name of faculty	Activity / Role	Organization
		Member	Anna University Inspection Committee , Chennai
		Reviewer	International Journal of Mechanical Science and Technology, Springer publications
		Reviewer	International Journal of Advanced Manufacturing Technology, Springer publications
4	Dr.A.R.Lakshmanan	Member, Board of studies	Annamalai University, Chidhambaram
5	Dr.M.Ramu	Reviewer	International Journal of Precision Engineering and Manufacturing
		Reviewer	International Journal of Mechanics Based Design of Structures and Machines
		Reviewer	Part G: Journal of Aerospace Engineering
6	Mr.A.S.Prasanth	Treasurer	Indian Value Engineering Society, Coimbatore Chapter
7	Mr.S.Babu	Engineers Platoon Commander	NCC

2.6.Award won by faculty

S.No.	Name of the faculty	Nature of award	Awarded by	Date
1.	Dr.P.R.Thyla	Mementoes in appreciation of their receiving meritorious awards from other organizations	PSG Management	05.09.2015
2.	Dr.V.Prabhu Raja	PSG Teacher of the Year ward	PSG & Sons' Charities	05.09.2015
3.	Dr.M.Yuvaraja	IEI Young Engineers Award -2015	Institution of Engineers (India), Kolkata	04.09.2015
4.	Dr.S.Babu	Concentrated Solar Thermal (CST) Technology Excellency awards-2016	Ministry of New And Renewable Energy(MNRE)	29.04.2016
5.	Dr.S.Babu	Commission Associate NCC Officer	NCC Officers Training Academy, Kamptee	19.10.2015

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory Name	Major equipment details	Cost in INR (Lakhs)
1	Metrology Lab	Gear Rolling Tester (Model P-O with LM Guide)	2.06
2	Heat Power Lab	Single Cylinder Portal Engines Test Rig	9.03
3	Rane Lab	Linear drive for handling station	1.06
		Laser Triangular sensor measuring range 4 mm with cable of 3 meters	2.71

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (Lakhs)
1	Numerical Modeling and Experimental Investigations on the Performance of Proton Exchange Membrane Fuel Cell (PEMFC) with Porous Flow Channels	Dr.P.Karthikeyan Dr.S.Neelakrishnan Dr.Gukan Rajaram Dr.P.Manoj Kumar	DST New Delhi	2011 Completed	3 years	18.50
2	Development of Porous Structured Scaffold for Bone Implants	Dr.M.Ramu	DST, New Delhi	2011 Completed	2 years	14.25
3	Investigations on the Suitability of Lubricants with Nanoparticle Additives for Machine Tool Slideway applications	Mr. P.Nallasamy	DST, New Delhi	2011 Completed	2 years	22.79
4	Investigations of Formability of Polymers in Single Point Incremental Forming Process	Dr.D.Rajenthira kumar	DST, New Delhi	2011 Completed	2 years	8.66
5	Investigations to control distortion during end milling of thin walled Titanium Alloy	Dr.K.Ganesan	DRDL Hyderabad	2013 Completed	1.5 years	9.97
6	Development of Value Engineering Methodology to Optimize the Manufacturing of Precision Aerospace Gear	Dr.G.Sundarraaj Mr.V.Vijayanand	DRDL Hyderabad	2013 In Progress	2 years	9.80
7	Development and Performance Testing of Metal Matrix Composite Gears using Powder Metallurgy	Mr.V.Vijayakumar	UGC New Delhi	2013 In Progress	3 years	5.05
8	Design and Development of Drill Tool for Drilling Aerospace Structure (CFRP/Ti/CFRP/Al stacks)	Mr.A.Prabhu Karthi	UGC New Delhi	2013 Completed	3 years	7.64
9	Development of Mathematical Models using Experimental and Numerical Investigations in End Milling Ti Alloy	Dr.K.Ganesan	DRDL Hyderabad	2013 Completed	1 ½ years	9.97
10	An investigation on Machining Tolerance and Surface Finish for	Mr.C.Shanmugam	DRDL Hyderabad	2013 Completed	1 ½ years	9.74

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (Lakhs)
	Improvement of Roller Screw Performance					
11	Development of Alternate Materials for Improving Dynamic Response & Damping Properties of Machine Tool Structures	Dr.P.R.Thyla Dr.V.Prabhu Raja Dr.M.Ramu Mr.D.Martin SureshBabu Mr.K.Sadesh Mr.C.Shanmugam Mr.B.Mohanraj Mr.M.Kalayarasan Mr.P.Dhanabal Mr.K.Sripriyan	DST, New Delhi	2014 In Progress	3 years	513.39
12	Determining the Effect of Vibrator Parameters and Physical Characteristics of Part on Conveying Velocity	Dr.S.Udhaya kumar	UGC New Delhi	2014 In Progress	3 years	20.00
13	Investigations on Structural Integrity of Dome Shaped Roof Slab of Future SFRs	Dr.V.Prabhu Raja Dr.P.R.Thyla Mr.M.Ramu	BRNS, Mumbai	2014, In progress	3 years	68.44
14	Development of Regenerative Storage Air Heater Design	Dr.T.Prabu	DRDL Hyderabad	2014 Completed	1 year	9.56
15	Solar Energy based Desiccant Loop Air conditioning	Dr.Madhu Ganesh Dr.L.Ashok Kumar Mr.R.Venkatesh Mr.R. Arun Kumar	DST- SERI New Delhi	2014 In Progress	3 years	38.00
16	High Speed Machining of Aerospace Alloys using New Generation PVD Coated Cutters	Dr.J.Kanchana Dr.Geetha Priyadarshini Dr.V.Krishnaraj	DRDO New Delhi	2014 In Progress	3 Years	9.85
17	High Speed Machining of CFRP using Router Tools and Online Tool Life Monitoring using Acoustic Emission	Mr.R.Prakash	UGC New Delhi	2015 In Progress	2 years	4.1
18	Development of a candidate dielectric fluid based cooling system for solar panel performance enhancement numerical and experimental investigation	Dr.Madhu Ganesh Mr.R.Venkatesh	UGC New Delhi	2015 In Progress	3 years	11.03
19	Vibration Control in Domestic Small	Dr.M.Yuvaraja	Ministry of New and	2016 In Progress	2	19.18

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (Lakhs)
	Horizontal Axis Wind Turbine		Renewable Energy, New Delhi			

3.2.1 Sponsored research activities – Abstracts

Numerical Modeling and Experimental Investigations on the Performance of Proton Exchange Membrane Fuel Cell (PEMFC) with Porous Flow Channels

Proton exchange membrane fuel cells (PEMFCs) are widely popular because of their low-temperature operation and environment friendly energy generating capability. Hence, this makes it the ideal choice in several applications such as transportation, stationary and portable products. In spite of its excellent benefits, commercialization of fuel cells is very challenging because of the high cost of its materials and low reliability. Currently, active research in this area is underway in several areas such as, reducing the platinum catalyst loading, seeking inexpensive materials and construction methods, and improving cell performance and durability.

Water is one of the by-products of the electrochemical oxidation of hydrogen. The water management in the cell is a critical issue in the design and performance of PEMFCs. The most critical aspect of fuel cell water management is the delicate balance of membrane hydration and avoidance of cathode flooding. The importance of water management in the performance improvement studies on PEMFC has been simulated and extensive research focuses on liquid water transport and its efficient performance and durability.

Liquid water accumulation in the interfacial contact area between the flow channel landing and gas diffusion layer (GDL) can dramatically impact steady and transient performance of PEMFCs. In this connection, a porous landing could facilitate water removal in the cathode flow channel and improve PEMFCs performance significantly. Initial experimental studies have been carried out for the performance improvement of PEMFC with porous flow channels which is made of porous carbon sheet. Performance measurements have been made with nominally identical PEMFCs using non-porous and porous flow channels, with the results revealing that porous flow channels offer much greater power output (48%) than non-porous flow channels.

Hence, the objective of this proposal is the fabrication of porous flow channels with various porosity and permeability ranges and experimental investigation on PEMFCs with effective water removal from the flow channel landing and GDL for performance enhancement studies. Further investigation will be the adoption of porous inserts on the landing area of the non-porous flow channels to improve the PEMFCs performance.

Development of Porous Structured Scaffold for Bone Implants

Tissue engineering combines cell and molecular biology with materials and mechanical engineering to replace damaged or diseased organs and tissues. A bio-scaffold can be broadly termed as a structure used to substitute an organ either permanently or temporarily to restore functionality. The scaffold structure needs interconnecting pores to allow the 3D flow of culture medium or blood in order to ensure continuous supply of nutrients and metabolites which is of great importance for the survival of the cells cultured on the scaffold. This work deals with manufacturing bio-medical scaffold with interconnected pores of different size and shape in RP machine. The RP technique helps to achieve complex internal architecture, interconnectivity, and good mechanical strength. The primary

objective of this research work is to study and fabricate biomedical scaffold with interconnected pores of different size and shape in Rapid Manufacturing system, the biomechanical properties, and to compare and trace the suitable parameters for scaffold. Suitable material will be selected for scaffold that mimics the properties of the bone. Real time mechanical testing is to be carried out to compare the results. Tissue culture will be carried out in the scaffold with optimized porosity. The results of the In-vitro studies will be used for the improvement in design of scaffolds. Pathological observations will be carried out.

Investigations on the Suitability of Lubricants with Nanoparticle Additives for Machine Tool Slideway Applications

The main objective of this project is development and tribological investigation of suitable nanolubricant for machine tool slideways. Based on the literature review, MoS₂, MoS₂+Graphite, Cu and CuO nanoparticles were selected as additives and PAO oil was selected as base oil. The different nanolubricants were prepared by adding various proportions selected nanoparticles in PAO base oil. Friction, wear and stick-slip characteristics of the nanolubricants were assessed using pin-on-block reciprocating friction monitor simulating the actual loading conditions prevailing in machine tool slideways. Extreme pressure properties of the lubricants were determined using four ball tester. Field tests were conducted using a lathe. The project was completed in all forms by December 2015.

Investigations of Formability of Polymers in Single Point Incremental Forming Process

The aim of this work is to evaluate the possibility of producing low cost, small batch, polymer sheet components by means of incremental forming process. During the research work, three different thermoplastic materials are incrementally formed into different shapes at room and elevated temperature on a conventional Computer Numerically Controlled (CNC) milling machine. In designed experiments, significant process parameters are found and influential material properties are identified. The suitability of materials to be processed by incremental forming is evaluated taking into account ductility and springback. The experimental results confirm that this special forming process of commercial polymer sheets at room and elevated temperature has potential for the manufacture of complex parts with very high depths.

Investigations to Control Distortion during End Milling of Thin Walled Ti-6Al-4V Titanium Alloy

The residual stress developed during machining induces distortion in the machined components leads to reduction of components fatigue life and also create problems in assembly. The effects of the operating parameters on distortion under the selected cutting condition help to control the induced residual stress and distortion. In this research work, the influence of speed, feed and depth of cut on induced residual stress and distortion during end milling of Ti6Al4V alloy thin parts is studied. First, the various end milling conditions using combinations of machining parameters under the selected cutting environment are simulated using AdvantEdge FEM software. After conducting end milling experiments distortion, temperature, surface roughness and tool wear are measured and analysed. Finally, process model for predicting the induced distortion is established.

It is observed that the cutting speed contributes the most to the machining induced distortion in longitudinal direction compared to feed and depth of cut. The axial depth of cut contributes the most to the machining induced distortion in transverse direction compared to cutting speed and feed/tooth. The temperature generated during end milling of titanium alloy Ti6Al4V, has been measured using thermal imaging camera. A polynomial regression model was created for the temperature and this model has given the better agreement with the experimental results. From the experimental study it can be seen that cutting speed has the significant effect on temperature rise at cutting zone when compared to feed rate. The distortion increases with an increase in number of passes, feed rate and speed. Feed rate contribute more to the tool wear compared to other parameters. The cutting speed closely follows the feed rate for affecting the tool wear. The no.

passes contributes to the surface roughness more compared to other process parameters and cutting speed is the next contributing parameter.

Development of Value Engineering Methodology to Optimize the Manufacturing of Precision Aerospace Gear

The project aims at developing a value engineering model to analyse the current processes for manufacturing of precision aero space gear. The value engineering job plan is applied to understand and locate the areas of value addition. Besides the analysis the parameters used are being investigated for optimisation. A value engineering software was developed to facilitate for obtaining the objectives. The software and model developed were presented to DRDL and then the corrections requested were incorporated. The project was completed in all forms by May 2016.

Development and Performance Testing of Metal Matrix Composite Gears using Powder Metallurgy

Several aircraft, aerospace, automotive, and sport application components are manufactured by using composite materials providing considerable savings in strength- to-weight and stiffness-to-weight ratio when compared with traditional materials. In the last 20 years or so, the development of composites has been one of the major innovations in materials. The present manufacturing techniques applied for composite component manufacturing have limitations like low production rate, little control of reinforced orientation and inability for post processing. As a consequence, the composite component manufacturing techniques have not been properly fulfilling the industrial needs. This research work will concentrate on developing an improved manufacturing method to solve present problems in composite component manufacturing.

Gears made from metals, metal alloys, and thermoplastic materials are well known and are used in many applications. Metal and metal alloy gears may withstand high torque but they generate more noise when they mesh with each other gears. Thermoplastic gears have been used to reduce the noise, but they cannot withstand high torque load forces which may damage their gears. Therefore, their applicability is limited to low torque application only. The tooth loading is a significant factor, which is used to derive the gear design and choice of the material. Some of the applications such as office machines, food processing machineries, and textile machineries need small size, light weight and high torque load gears for their power transmitting. Gears used in automobile power transmission require high torque and load carrying capability. In this application, weight reduction without losing the strength needs to be achieved by means of alternative materials.

Attempting to solve this problem, the research is proposed to be carried out in the area of development of MMC gears for industrial application. This research includes design of gears, selection of MMC materials, manufacturing of composite gears, and finally, testing the performance of developed MMC gears.

A lot of gear manufacturing methods are available when making the gear with conventional materials. In this research work, P/M techniques have been chosen to manufacture MMC gear. P/M method is more advantageous when compared to conventional forging with low losses due to minimal machining requirements and excellent material utilization.

Design and development of drilling tool for drilling aerospace structures (CFRP/Ti/CFRP/AL) stacks

The major objective of the project was to develop a drill tool for machining Multi-layer composite stack (CFRP-Ti) which is utilized in the aerospace industry. Initial study were carried out by drilling CFRP/Ti stacks by changing the tool geometry and study its effect on cutting force and hole quality. It was analyzed further by measuring tool wear during machining at different cutting conditions and establish model at various parameters. Later on the effect of coating on drill tool in order to reduce the cutting forces were also studied. Based on the above study solid twist drill was designed and developed that has a significance increases in tool life while drilling composite stack. The effect of

minimal quantity lubricating system (MQL) with respect to increase in tool life of the developed twist drill and hole quality were also studied in the project.

Development of mathematical models using experimental and numerical investigations in end milling of titanium alloy (Ti-6Al-4V)

Ti-6Al-4V alloy is an attractive material in many industries however, its low thermal conductivity and high chemical reactivity makes a challenge to produce highly precise components in areas like aerospace engineering. The objective of the current work is to study the machinability aspects during end milling of Ti6Al4V alloy. Machining experiments have been done at conventional and high speed end milling on titanium alloy (Ti-6%Al-4%V). High speed machining was done for the cutting speeds of 120,150,180 m/min. Carbide inserts of TiAlN coating and AlTiN coating were used in the tool wear study on high speed machining. The depths of cut were varied from 0.5, 0.75 & 1.0 mm. The feed rates used in the experiment were 0.05, 0.075 and 0.1 mm/rev. The experiments were carried out under dry cutting conditions. From the experimental study it is found that cutting speed has the significant effect on temperature when compared to feed/tooth.

Further, it is also observed that cutting speed of 30 m/min and feed rate of 0.02 mm/rev could be used for finish machining of Ti alloys with a tool life of 30 minutes. From the experimental study, the machining parameters of cutting speed of 120 m/min, feed rate of 0.05 mm/rev and depth of cut of 0.5mm were found to be better among the machining parameters investigated. In high speed milling the Cutting speed has less effect on cutting forces; at higher depths of cuts (in this cast at 1 mm) the cutting force stabilizes and even reduces because of stable cutting and temperature. Moreover it is found than depth of cut has higher influence on cutting force than feed rate. From the study it is found that depth of cut 0.75 mm is preferable. Cutting speed has higher effect on temperature than depth of cut and feed rate. The experimental results have shown that the milled surface shows the anisotropic nature with the range of surface roughness values from 0.27 to 0.45 μ m. When the cutting speed is increased followed by depth of cut there is a decrease in surface roughness. A mechanistic model, derived from basics considering geometry of tool and principles of metal cutting, is valid for a wider range of cutting parameters. The major wear on the cutting tool during high speed machining is found to be edge chipping (Attrition) and coating delamination in AlTiN coated inserts. t high speed machining feed rate also plays a significant role. Feed of 0.05 mm/tooth or less may be used to get a higher life. At feed rates of 0.1 mm/tooth and 0.15 mm/tooth the tools fail much faster i.e. less than 3 minutes. Uncoated inserts failed rapidly at high speed machining.

An investigation on machining tolerance and surface finish for improvement of roller screw performance

Roller screws convert rotary motion into linear motion. As a more powerful and efficient transmission device, planetary roller screw has received more attention recently when compared to the conventional ball screws of contact angle, helical angle, tooth and the number of roller threads that are investigated. However, due to complete and unclear relationships among the component parameters it is difficult to design and manufacture planetary roller screw. This study could contribute to the research of PRS to improve its transmission performance especially to increase its positioning accuracy.

The part drawing of the various components of the roller screw were prepared in Solid Works as per the drawings given by DRDL. In order to understand the geometrical form and working of roller screw, it was decided to manufacture a prototype using ABS plastic. Based on the 3D CAD drawings, a Rapid Prototyping model of the roller screw was made in TIFAC- CORE and one more prototype was manufactured using SS440C.

Performance testing was carried out using a test setup comprising of multiple sensors integrated together using virtual instrumentation. Testing was carried out on the setup under different loading conditions for different number of cycles with the required external load being axially applied through a hydraulic load cylinder arrangement. Simultaneously various parameters like vibration, temperature, linear velocity, backlash, wear rate, response time, roller displacement, etc., are sensed from the sensors and they are monitored. Performance curves are plotted between various parameters and are then compared with the standards of the servomotor being used. Also, the obtained results are validated using the results from kinematic analysis performed using a simulation software. Thus, the performance and cycle life of the roller screw is assessed.

The analysis is applied to roller screws and recirculating roller screws. Prior work has neglected to take a fundamental approach towards understanding the kinematics of the contact between these components and, as a consequence, detailed analyses of aspects such as contact mechanics, friction, lubrication, and wear are carried out.

Development of alternate materials for improving dynamic response and damping properties of machine tool structures

High cutting velocities, high spindle speeds, and high feed rates that could lead to increased accuracy and productivity, are frequently limited by machine tool vibration and thermal growth of critical components like spindles. It is undesirable as it gives rise to production problems, like causing detrimental effects on the machined surface finish, damage to tool and decrease in the machining efficiency. This type of dynamic instability is usually caused by the compliance of the machine tool structures.

Research work employing alternate forms and materials for machine tool structures is a potential area to enhance the performance of precision machine tools. Composite materials including mineral casting find several applications in building machine tool structures. They include the machine bed, slide ways, spindles, columns etc. Substituting composite structures for conventional metallic structures has many advantages for structural dynamic characteristics because composite materials have higher specific stiffness, damping characteristics, thermal stability, and lower inertia than the conventional materials.

This project aims at establishing scientific methods of developing composite materials and evaluating their performance characteristics with respect to their applicability in machine tool industries. Methodologies are also to be developed to ensure commercial production of composite machine tool structures at a viable cost. This will help Indian machine tool manufacturers to produce machine tools which will give consistent accuracy and repeatability. It will also enable them to venture into the domain of high speed machining and make them competitive both in domestic and international markets.

Determining the effect of vibrator parameters and physical characteristics of part on conveying velocity

The technology of vibratory feeding exists for many decades. The critical parameters of a vibratory feeder (that are under the control of the user) are excitation frequency, amplitude of vibration, and track angle. From literature survey [1-4], it can be found that most of the works aim at determining the effect of vibrator parameters on conveying velocity of part. The effect of physical characteristics of the part (such as weight, length to thickness ratio) that is conveyed on the feeder is neglected. Since the characteristics of part is neglected, it gives an impression that any part moves with same conveying velocity on the vibratory feeder, provided the vibrator parameters are maintained constant. But, this is not true in reality. Under same set of vibrator parameters, a steel part will have a different conveying velocity compared to a plastic part. Similarly, two steel parts with different

dimensions will have different conveying velocities on the feeder. Hence, the physical characteristics of part also play a vital role in determining the conveying velocity. The interaction between the vibrator parameters and physical characteristics of part is essential for the development of models to predict the conveying velocity more accurately. Though several literatures can be found in design and development of vibratory feeders, the research on determining the effect of vibrator parameters and physical characteristics of part on conveying velocity is very limited. This project aims in determining the effect of vibrator parameters and physical characteristics of part on conveying velocity. Co-efficient of friction between the part and feeder will also be considered for the analysis. Based on the results, it is proposed to develop regression and Artificial Neural Network (ANN) models to predict the conveying velocity based on the vibrator parameters and physical characteristics of the part. These models will be of great use in industries to set the parameters of vibratory feeder to obtain the desired conveying velocity of parts to match their processing time.

Investigations on Structural Integrity of Dome Shaped Roof Slab of Future SFRs

Structural integrity evaluation of components is increasingly important in nuclear power plants. Structural integrity refers to the condition of a structural system and implies that the structure and its components remain intact over the intended lifetime of the structure. Enhanced integrity may mitigate progressive collapse.

The roof slab of a nuclear reactor not only supports the entire vessel and components but also acts as athermal/biological shielding. Hence, the integrity of the roof slab plays an important role on the safe and reliable function of the reactor. The main objective of this project is to assess the structural integrity/reliability of dome shaped roof slab by determining the collapse load accounting for uncertainties in material property, mechanical, and thermal loading as well as the presence of undetectable cracks and weld defects.

It is proposed to fabricate the scaled down models of roof slab to determine the collapse loads in the presence of cracks and other uncertainties for various loading conditions. The finite element models of roof slab will also be developed and validated with the experimental results (deflection, strain, etc.). The validated numerical models will be used to investigate the structural integrity of roof slab with different crack geometries and weld defects. The proposed research work will establish the methodology for the structural integrity assessment of the roof slab and hence, ensure the safe operation of the nuclear reactor during its life span.

Development of Regenerative Storage Air Heater Design Model

Hypersonic wind tunnels need heater systems for pre-heating the air prior to its expansion through the nozzle to maintain it above the liquefaction temperature during the expansion. Storage Air heaters are generally used for the heating. Regenerative storage heater (RSH) technology is a potential means for supplying clean air as a propulsion test medium for high speed/hypersonic weapon systems and flight vehicles.

Our Main objective of the project is modeling and analysis of a simplified cored brick air heater (scaled down approach) to establish the physics involved in the heater. Modeling and analysis of cored brick air heater of 30°, 45°, 90° sector in stages are needed to represent the heater better. Development of a mathematical model (MATLAB code) for cored brick air heater to assist in better design and visualization of the heater was undertaken.

In heating cycle, the heater bed is made to attain various temperatures (specified as per the requirements) by convection. This is done by blowing hot combustion gases for a period of 6-8 hours along the length of the heater from top to bottom before the tunnel blow down.

The combustion gases are produced by burning LPG in the burner placed on top of the heater. In blow down cycle, cold air from the high pressure air storage is sent from the bottom of the hot bed to the

top of the bed. During this process, the cold air extracts the thermal energy from the bed as it passes from bottom to top and simultaneously heater bed loses its thermal energy to some extent.

In reheating cycle, the heater bed is reheated to attain the same temperature profile as that of the heating cycle. The cycle is repeated continuously until the experiments have been carried out in the hypersonic wind tunnel.

Solar Energy based Desiccant Loop Air conditioning

Enabling the capture of solar energy in a distributed manner on industrial and domestic rooftops is vital to realize the goals of the National Solar mission. For this, solar collectors have to be roof mountable, nontracking type, and low cost. The floor packing needs to be high as real estate is very expensive. Air-conditioning is unaffordable for a significant percentage of the population due to high capital and operating costs. A low cost rudimentary system without the sophistications of a conventional vapour compression air conditioner is sufficient to meet the very basic needs of a large population of India. A Desiccant Cooling System (DCS) operated with solar energy will meet this goal as the capital cost of the proposed collector is expected to be lower than the conventional collectors by 25% and the operation cost is expected to be lower by 50%. The objective of the project is to develop a low cost compact solar collector which operates on a low cost Desiccant air conditioning system

High Speed Machining of Aerospace alloys 465 Steel using New Generation PVD Coated Cutters

Major percent of cost share involved in manufacturing industry is due to machining operation and often change of tool (fig 1). Coolants, however, create high costs in production, and can be hazardous to the environment. In the manufacturing industry increased productivity is always desired. In terms of cutting parameters, this means higher cutting speeds and feeding rates are required during operation. PVD hard coatings are effective not only in wear reduction, but also in better workpiece surface finish, higher productivity, and reduced use of lubricants. The effect of such demands is requirements of improved thermal stability, mechanical properties and oxidation resistance of the protective coatings. Therefore, choosing appropriate coating for cutting tool can significantly lower the cost by altering the properties of the tool thereby increasing the tool life time.

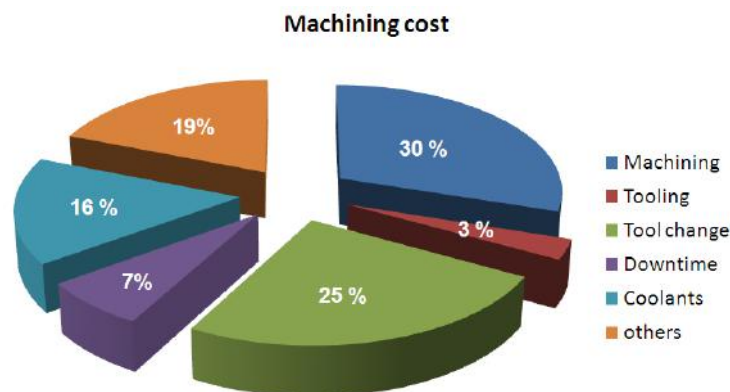


Figure 1: Machining cost involved in cutting tool industry

Prior to the development of new coating desired for specific machining application, one needs to systematically analyze the properties of tool material, work piece material and coating process technology. The performance characteristics for a special tool are determined by the combination of tool, coating and process as shown in the figure 2. Table 1 shows some examples of coating properties and applications. TiN was one of the first coating materials used in the cutting tools industry and it is still used as diffusion barriers and for decorative coatings. TiN and TiCN are the first generation hard coating developed in 1970's with CVD process which were used for general purpose cutting operations and today about 90% of the inserts for metal cutting are coated. TiN has been

shown to oxidize at a rather high rate above 450 °C, which is one of its main disadvantages when used as a tool coating.

Latest generation of coating which includes TiAlN, AlTiN showed remarkable improvement in hardness and hot oxidation temperature enabling dry machining in carbon steel, cast iron, stainless steel and Ti alloys. Diamond-like carbon coating is being employed for high precision Al alloys component which requires high sliding wear and lubricity. The selection of coating is done based upon the work piece machinability depending on the formation of long or short chips during increased speed and cutting forces.

High Speed Machining of CFRP using Router Tools and Online Tool Life Monitoring using Acoustic Emission

Composites find lot of applications in aerospace, defence, automotive and medical industries due to its high strength to stiffness and weight ratio, when compared to metals. Composite structures and their applications are competitive and very cost effective against traditional materials. Particularly the use of plastics and composite materials enables the creation of lighter structures with increased functional integration. However, the industrial implementation of manufacturing technologies for new materials and products is only possible where manufacturing processes are available on a technical and economical scale. CFRP is extensively used in primary structure applications like aircraft hull and wings. After the CFRP components are demoulded from the die, the edges are requiring post machining process called “edge routing”. Normally high speed routing is recommended in order to meet the desired level of surface integrities such as surface finish at the edges of the parts. The finished composite parts are bonded together to form complex structural sub-assemblies that must be either assembled together or attached to other structural components, such as aluminium or titanium. Therefore the surface finish/delamination/fibre pull out plays a significant role in achieving overall product quality because it is often directly related to the product’s functional performance.

The heterogeneity and anisotropy of the composite materials make machining difficult and accompanied with different damages. The challenges in machining of quasi-isotropic CFRP are, heat generation which causes melting of resin matrix, highly abrasive nature of fibers quickly dull the edges of cutting tools, high cutting forces reduces tool life and the improper machining conditions cause surface defects (fiber pull out and delamination). Though the defects in the free edges are mainly influenced by the machining parameters (such as cutting speed, feed rate, depth of cut and fibre orientation) and the type of machining (orthogonal cutting and oblique cutting), the tool geometry also imparts a major role in getting good surface integrities. The failure of cutting tools leads to loss of productivity, rejection of parts and consequential economic losses. The productivity of a machining system and machining cost, as well as quality, the integrity of the machined surface and profit strongly depend on tool wear and tool life. Some of the cutting tool manufacturing industries proposed that for machining the CFRP, the router tools are comparatively well to fluted tools, as it gives low resistance to cut and cutting temperature. But these cutting tools also find a limited tool life with some failure like broken teeth. Unlike the conventional cutting tools the router tool has unique tool geometry and poses substantial challenge in the process of tool wear measurement. The direct tool wear measurement is not possible in this type of special geometry router. In such cases online tool life monitoring using acoustic emission will be an effective method to assess the tool wear and tool life. Therefore it is essential to have investigations on tool life and quality of the part (delamination/fibre pull out/surface finish) while edge routing of CFRP using the appropriate router cutting tools with different geometry and the different cutting tool coatings. This research will give innovations on appropriate cutting tool with tool geometry and coating for achieving good tool life and surface finish of the composite components.

Development of a candidate dielectric fluid based cooling system for solar panel performance enhancement based on numerical and experimental investigations

One of the main obstacles that are encountered during the operation of photo voltaic panels (PV) is overheating due to excessive solar radiation and high ambient temperatures. Overheating reduces the efficiency of the panels dramatically. The maximum power output from the solar cells decreases as the cell temperature increases, the temperature coefficient of the PV panels is $-0.5\% / ^\circ\text{C}$, which indicates that every 1°C of temperature rise corresponds to a drop in the efficiency by 0.5%. This indicates that heating of the PV panels can affect the output of the panels significantly. For a 240 W solar panel, the output power decreases from 217 W to 58 W in a given period due to increase in temperature. The efficiency of the PV solar panel decreases since output voltage decreases due to increase in temperature. The efficiency also decreases during the latter part of the day since output current decreases due to decrease in solar irradiance. Higher operating temperatures also threaten the long-term stability of cells. The main aim of the project is to develop a Dielectric fluid which will make the solar PV panel to operate at its rated efficiency and then to develop a compact cooling bath for the solar panel mounting.

3.3 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & Institution	Year of registration & status
1	Mr.P.Viswanathan	Wind Energy	Dr.R. Rudramoorthy, Principal, PSG CT	2009, in progress
2	Mr.R.Venkatesh	Solar Energy		2014, in progress
3	Mr.R.Arun kumar	Solar Energy		2014, in progress
4	Mr.C.Narayanaswamy	Supply Chain Management	Dr.K. Natarajan, Professor and Head, Department of Mechanical Engineering, PSG CT	2010, in progress
5	Mr.A.Sasikumar	Reverse Logistics		
6	Mr.J.Selvakumar	Reliability Engineering		
7	Mr.R.Bharathi	Machining of Composite Materials		
8	Mr.V.Saravanan	Study of Aluminium - Cenosphere Composite	Dr.P.R.Thyla, Associate Professor, Department of Mechanical Engineering, PSG CT	2009, in progress
9	Mr.N.Tiruvenkadam	Friction Wear In Composite Material		2009, in progress
10	Mr.S.Murugan	Composite Materials for Machine Tool Structures		2011, in progress
11	Mr.S. Parimala Murugaveni	Nano Lubrication		2011, in progress
12	Mr.D.Martin Sureshbabu	Nano Tribology		2011, in progress
13	Mr.D.Shanmuga Sundaram	Machine Tool Engineering		2011, in progress
14	Mr.R.Sakthimane	CNC Machine Tools		2012, in progress
15	Mr.E.S. Rama subramaniam	Rotor Dynamics		2012, in progress
16	Mr.C.Shanmugam	Machine Tool Engineering		2013, in progress
17	Mr.N.Mahendrakumar	Machine Tool Engineering		Dr.P.R.Thyla (Joint Supervisor)

S.No.	Candidate	Short title / Area of work	Supervisor with designation & Institution	Year of registration & status
18	Mr.K.Ganesan	Reliability & Maintenance Engineering	Dr. G. Sundararaj, Associate Professor, Department of Mechanical Engineering, PSG CT	2010, in progress
19	Mr.A.R.Soman	Consequence Analysis of Hazardous Materials		2011, in progress
20	Mr.P.Parthiban	Optimal Location of Base Station Using Optimization techniques		2011, in progress
21	Mr.M.Mohan	Value Engineering		2012, in progress
22	Mr.P.Umar Ahamed	Machinability of Titanium Alloys		2013, in progress
23	Mr.N.Senthil Prabhu	Lean Manufacturing		2014, in progress
24	Mr.P.Palpandian	High Speed Machining		Dr.V.Prabhuraja, Associate Professor, Department of Mechanical Engineering, PSG CT
25	Mr.B.Selvakumar	Heat Transfer	2009, in progress	
26	Mr.M.Thirumalai muthukumaran	Machine Tool Engineering	2010, in progress	
27	Mr.S.Bala Santhosh	High speed mahcining	2012, in progress	
28	Mr.M.Kalayarasan	Machine Tool Engineering	2013, in progress	
29	Mr.S.Mohanraj		2014, in progress	
30	Mr.P.Dhanabal		2014, in progress	
31	Mr.A.Adhiyamaan	Rapid Prototyping	2014, in progress	
32	Mr.G.T.Ebron Shaji	Structural integrity	2015, in progress	
33	Mr.S.Sathish	Industrial Engineering	Dr. A.R.Lakshmanan, Associate Professor, Dept .of Mechanical PSG CT, Coimbatore	
34	Mr.A.Johnson Santhosh	Optimization Techniques		2012, in progress
35	Mr.S. Muthu Baskaran	Lean Six Sigma In Foundry		2012, in progress
36	Mr.K.Sadesh	Machine Tool Engineering	Dr. A.R.Lakshmanan (Joint Supervisor)	2010, in progress
37	Mr.R.Selvam	Wind Energy	Dr.R.Velavan, Associate Professor, Dept. of Mechanical Engineering, PSG College of Technology	2013, in progress
38	Mr.N.R.Govinthasamy	Solar Energy		2013, in progress
39	Mr.P.M.Venkatesh	Wind Energy Conversion Technology		2013, in progress
40	Mr.C.Madhan Kumar	Renewable Energy		2014, in progress
41	Mr.R.Sandhya	Bio Diesel		2014, in progress
42	Mr.T.Karthik	Forming Process	Dr.D.Rajenthirakumar Associate Professor, Dept. of Mechanical Engineering, PSG CT	2012, in progress
43	Mr.R.Sridhar	Metal Forming		2013, in progress
44	Mr.S.Shanmuga sundaram	PEM Fuel Cells	Dr.Gukan Rajaram, Associate Professor, Dept .of Mechanical Engineering, PSG CT	2010, in progress
45	Mr.V.Vijayanand	PEM Fuel Cells		2011, in progress
46	Mr.M.Subramanian	Micro Forming of Sheet Matrials	Dr.Gukan Rajaram (Joint Supervisor)	2010, in progress
47	Mr.P.Nallasamy	Tribology		2010, in progress
48	Mr.I.Prabu	Nanotechnology In Machining		2011, in progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & Institution	Year of registration & status
49	Mr.V.Sivaraman	Nano Coatings		2012, in progress
50	Mr.M.Mohan Prasad	Lean Manufacturing	Dr.K.Ganesan, Associate Professor, Department of Mechanical Engineering, PSG CT	2013, in progress
51	Mr.V.Srinivasan	Analysis of Heat Transfer of Bagasse		2013, in progress
52	Mr.B.Geetha	Manufacturing		2015, Completed
53	Mr.R.Rama chandran	Thermal Engineering		2009, in progress
54	Mr.G.R.Kathiresan	Lean Manufacturing	Dr. K.Ganesan (Joint Supervisor)	2007, in progress
55	Mr.K.Vijayanand	Manufacturing Engg - Sheet Metal Cutting	Dr.A.Ramesh Babu, Associate Professor, Dept .of Mechanical Engineering, PSG CT	2012, in progress
56	Mr.S.Raja	Sheet Metal Process		2012, in progress
57	Mr.P.Sunil Castro	Supply Chain Management		2013, in progress
58	Mr.K.Sripriyan	Welding	Dr.M.Ramu, Associate Professor, Dept. of Mechanical Engineering, PSG CT	2014, in progress
59	Mr.D.Arunkumar	Thermal Engineering		2013, in progress
60	Mr.S.Venkatesan	Tribology		2013, in progress
61	Mr.S.Janaki	Green Supply Chain Management	Dr.R.Jayachitra, Assistant Professor, Dept. of Mechanical Engineering, PSG CT	2013, in progress
62	Mr.V.V.Senthil kumar	Supply Chain Management		2008, in progress
63	Mr.Franklin Robert John	Mechanical Engineering		2009, in progress
64	Mr. A.P.Arun	Laminated Bimetallic and Sandwich Spur Gears	Dr.A.P.Senthil Kumar Joint Supervisor Assistant Professor, Dept. of Mechanical	2015, Completed
65	Mr. A.Faizur Rahman	Polyester Spur Gears		2015, Completed
66	Mr.R.Gopinathan	Thermal Engineering	Dr.A.P.Senthil Kumar, Assistant Professor, Dept. of Mechanical Engineering, PSG CT	2014, in progress
67	Mr.R.Yasodharan	Solar Power Tracking		2014, in progress
68	Mr.S.Vijay	Operations Research	Dr.S.Udhayakumar, Assistant Professor, Dept. of Mechanical Engineering, PSG CT	2015, in progress
69	Mr.K.Vijay Anand	Manufacturing		2012, in progress
70	Mr.G.Vignesh Kumar	Composites		2015, in progress
71	Mr.D.K.Lakshmi Narayan	Industrial Engineering		2015, in progress
72	Mr.P.Selva kumar	Manufacturing Engineering		2016, in progress
73	Mr.P.Senthil Kumar	Composites		2016, in progress
74	Mr.E.L.Pradesh	Mechanisms		2016, in progress
75	Ms.V.Vishwa Priya	Vibration Feeder		2016, in progress
76	Ms.T.R.Uma	Materials Engineering	2009, in progress	
77	Mr.M.Parthiban	Manufacturing	Dr.V.Krishnaraj, Associate Professor,	2011, in progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & Institution	Year of registration & status
			Dept. of Production Engineering, PSG CT	
78	Mr.P.Govindaraj	Piping Design	Dr.M.Senthil Kumar, Associate Professor, Dept. of Production Engineering, PSG CT	2013, in progress
79	Mr.A.S.Prasanth	Composite Materials	Dr.P. Gopalakrishnan Professor and Head, Dept. of Metallurgical Engineering, PSG CT	2012, in progress
80	Mr.N.Mathimurugan	Rapid Prototyping	Dr.R. Subramanian, Associate Professor Department of Metallurgical Engineering, PSG CT	2013, in progress

3.3.1. Doctoral research: Abstract

Prediction and Enhancement of Stability of High Speed Spindle and Thin-Walled Structures

Supervisor: Dr.V.Prabhu Raja

Candidate: Mr.P.Palpandian

High Speed Machining is widely used in the aeronautical and automotive domains and enables increased productivity and reduced production costs. During workpiece machining in these sectors, large quantities of material are removed in high-removal-rate conditions, with the risk of instability in the process. This unstable phenomenon, known as chatter, is quite critical since it produces bad surface quality and may lead to spindle, cutter and part damage. The investigation deals with the prediction and improvement of chatter stability of high speed spindle taking into consideration spindle configuration as well as dynamic and thermal effects. The second phase is concerned with the prediction of stable speed ranges while machining simple rib structures and the methodology extended to typical aerospace components.

The vital design variables contributing to the fundamental natural frequency of spindle were found to be material of spindle, spacing between front and rear bearing sets and spacing between the front bearing and the free end of the cutter. An empirical relation based on regression was developed to predict the spindle natural frequency as a function of the design variables. Subsequently, the dynamic behavior of the spindle system was analyzed by determining the shift in spindle natural frequency based on the variation in bearing stiffness due to dynamic and thermal effects.

An investigation on the influence of rib thickness, tool position and rib material on the stability of thin rib structure is undertaken. The numerical approach is extended to a couple of typical thin ribbed components used in industries so as to determine the stable speed ranges. The methodology proposed in this work can be effectively used for the design of high speed spindle units of machine tools taking into consideration the spindle configuration as well as dynamic and thermal effects so as to realize chatter free machining accompanied with maximum material removal rate. The proposed analysis approach on thin rib machining of complex parts enables the most adequate machining strategy to be selected in accordance with industrial objectives.

Certain Investigations on Performance of Polyester Spur Gears Reinforced with Banana and Sisal Fibers

Supervisor/Joint-Supervisor : Dr.B.Giriraj /Dr.A.P.Senthil Kumar Candidate:Mr.A.Faizur Rahman

In this study, banana and sisal fibers are chosen as reinforcement in developing polymer gears. The extracted banana and sisal fibers are converted into respective mats through weaving process. Composite plates and gears are fabricated through hand layup method. The tensile strength of the composites was measured with a computerized electronic tensometer in accordance with the ASTM D 638 – 10 procedures at a cross head speed of 5 mm/min. The flexural tests were performed using a three point bending fixture according to ASTM D790-03. The impact strength of the specimens was measured using an Izod digital impact tester as per ASTM D 256-05 standards. The water absorption test was carried out according to ASTM D 570-98. A gear test rig was developed in the laboratory to conduct the performance test on the gears. Test gears were run with standard nylon gears as driver until failure or up to 1.40×10^6 cycles, at a constant speed of 1440 rpm. The applied torque during the test were: 4 Nm, 8 Nm, 12 Nm and 16 Nm. Temperature on the gear tooth surface, wear depth at pitch point of gears, specific wear rate of each gear, weight loss in gears and surface roughness on the gear tooth surface were measured at all torque levels. The service life of the gears is estimated based on torque levels. It shows a 16.67% increase in service life for reinforced gears at 4 Nm. There was 50% increase in service life for BG3 and SG3 gears at 8 Nm torque level. At the same torque level, 75% of increase in service life is found for BG4 and SG4 gears. Increase in service life of 150% is found for SG3 and SG4 gears respectively. Finally from the measured data, it is observed that sisal fiber mat reinforced gears have better performance than banana fiber mat reinforced gears irrespective of the number of layers stacked in the composites.

Certain investigations on performance of laminated, bimetallic and sandwich spur gears

Supervisor/Joint-Supervisor : Dr.B.Giriraj /Dr.A.P.Senthil Kumar Candidate: Mr.A.P. Arun

The novelty of work in this research is that, face width of gear has been split into a number of plies, and all the plies are stacked and fastened with the aid of fasteners and the relative motion between adjacent plies is arrested with dowel pins. This investigation was carried out on three categories of gears. First one is laminated spur gear where, all the plies are made of 20MnCr5 material. Second one is bimetallic gear where, plies with the combination of 20MnCr5 and Cast iron grade-35 are assembled to make single spur gear so as to reduce noise and vibration and the third one is sandwich gear where, plies with the combination of 20MnCr5 and hylam are assembled to make single spur gear so as to reduce the weight of the gear. In this work, the proposed gears are subjected to bending and contact stress analysis using the analysis software. To conduct the experimental work, a separate gear test rig has been developed. The developed test rig consists of a 3 phase 50 HP AC Induction motor with speed controller and a loading device (pump). The developed test rig used the Power Take-Off (PTO) gearbox with a single gear pair which is chosen for investigation. In this work, gears were investigated at various speed levels starting from 100 rpm to 1400 rpm with pump pressure load of 10 kg/cm² to 50 kg/cm². The developed test rig is used for measuring gear box oil temperature, vibration, noise radiating from the gearbox and speed of the pinion (test gear) shaft at various loading conditions are carried out. From the experimentation work conducted on laminated 20MnCr5 gear and solid 20MnCr5 gear, it is inferred that, in laminated 20MnCr5 gear the average noise and vibration is not more than 5% when compared to solid 20MnCr5 gear. The average wear rate observed at 1.9×10^7 cycle is 0.89 mm, which is 2.2% higher and the surface roughness measured at 2.4×10^6 cycles is 2.75% higher when compared to solid 20MnCr5 gear. However, based on the tooth bending stress, the proposed sandwich gear is suggested for low load application, i.e. it is suitable for the application where the applied load is 24%

less when compared to the load applied on 20MnCr5 solid gear. Further, the future work on the present study is also discussed.

3.4 Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
1	Dr P R Thyla Dr M Ramu	Lakshmi Life Sciences Limited, Coimbatore	Determination of maximum loading capacity of plastic cap	0.14
2	Dr M Ramu	Jega Precision Drives Pvt Ltd, Coimbatore	Determination of Factor of Safety for the Worm and Sector Gear Assembly using FEA	0.15
3	Dr M Ramu	Unique Equipments Coimbatore – 641021	Finite Element analysis of Tyre Curing Press – 6 Configurations	0.25

3.5 Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	925	-	-	-	1	-
2	GRD Library – Mechanical Engineering	22942	5292	2794	1	26	-

3.6 Board of studies

S.No.	Date	Agenda	External experts
1	01.03.2016	<ul style="list-style-type: none"> Finalization of detailed syllabi for BE / BTech 2015 regulations under CBCS. Introduction of new electives for UG/PG and research electives. Introduction of one credit courses for UG / PG regulations 	<ol style="list-style-type: none"> Dr.R.Velraj, Professor & Director, Institute For Energy Studies, Department of Mechanical Engineering, College of Engineering, Guindy, Anna University, Chennai. Dr.K.Sankaranarayananasamy, Professor, Department of Mechanical Engg., National Institute of Technology, Trichy. Dr J Selwin Rajadurai, Assistant Professor (Sr.Gr.) Department of Mechanical Engg., Government College of Engineering, Tirunelveli .
2	10.10.2015	<ul style="list-style-type: none"> Preparation of UG scheme and detailed syllabi for Regular (3rd semester to 8th Semester) and Sandwich (3rd to 10th semester) for 2015 regulations. Introduction of new electives for UG 2012 regulations /PG 2013 regulations and research electives Introduction of one credit courses for UG 2012 / PG 2013 regulations. 	<ol style="list-style-type: none"> Dr.G.Ranganathan, Managing Director, Rover Components LTD, Sri Lakshmi Nagar, K.Vadamadurai Post, Coimbatore Mr. P. Vivek, General Manager, Roots group of companies, R.K.G. Industrial Estate, Ganapathy, Coimbatore.

S.No.	Date	Agenda	External experts
			Special Invitees: 1. Dr.R.Srivatsavan , Visiting Professor, Department of Mechanical Engineering, PSG CT, Coimbatore. 2. Dr.Madhu Ganesh , Visiting Professor, Mechanical Department, PSG CT, Coimbatore

3.7. Research publications

3.7.1. Papers published in international journals

1. Ambalathumpara Raman Soman and Gopalswamy Sundararaj, "Accidental Release of Chlorine from a Storage Facility and an on-site Em Drill: A Case Study", *The Scientific World Journal*, Volume 2015, Article ID 483216, pp.1-13.
2. Prabhu Raja Venugopal, Ramu Murugan, P.R.Thyla, Sriramachandra Aithal, V Rajan Babu, Chellapandi Perumal, Baldev Raj, "Experimental and Numerical Investigations on Roof Slab of a Pool Type Sodium Cooled Fast Reactor Based on Model Studies", *Annals of Nuclear Energy*, 2015, pp.1085 – 1095.
3. S Manikandan, V Prabhu Raja, A. Adhiyamaan, "Investigation on the effect of Fused Deposition Modeling Process Parameters on Flexural and Surface Roughness properties of PC-ABS blend", *International Journal on Recent Technologies in Mechanical and Electrical Engineering (IJRMEE)*, vol.2. issue.8, ISSN:2349-7947, 2015, pp.41 -47.
4. S. Udhayakumar, K.Sadesh, A.Megala, R.A.Sindhu, "Sensing Characteristics of Ultrasonic Sensors used in Robots : A Study", *International Journal of Innovative Research in Engineering Science and Technology*, Vol.III (3), 2015, pp. 64-70.
5. S.Udhayakumar, K.Sadesh, P. V.Mohanram , "Part Identification System for a Flexible Feeder using Proximity Sensors", *Journal of Manufacturing and Industrial Engineering*, Vol.14(3-4), 2015, pp. 1-5.
6. D. Rajenthirakumar, K. Sadesh and R. Joswa Caxton, "Cellular Layout Performance Improvements through Implementation of Lean Manufacturing Practices", *Journal of Applied Engineering Research*, ISSN 0973 – 4562, Vol.10 No.50, 2015, pp.169 -173.
7. S.Udhayakumar, "Development of Vibratory Part Feeder for Material Handling in Manufacturing Automation: A Survey", *Journal of Automation, Mobile Robotics & Intelligent Systems*, Vol.9, 2015, pp.3-10.
8. S.Udhayakumar, N.Dinesh Krishna, S.Chandra Sekaran, B.Sharan, K.Sadesh, "Development of Strain Gague based LED Stumps", *Journal of Advances in Mechanical Engineering and Science (James)*, pp. 28-32, 2015.
9. K.Ragu, "Experimental Analysis of Die Clearance Distribution In A Press Tool Assembly", *Transactions of Famena*, ISSN 1333-1124, eISSN 1849-1391, pp.55-64.
10. D.Rajenthirakumar, "Lean implementation in electrical panel board manufacturing industry", *International Journal of Advances in Engineering & Technology*, Volume 8, Issue 1, pp. 1901-1909 [ISSN 2231-1963], 2015.
11. D.Rajenthirakumar, "Cellular layout performance improvements through implementation of lean manufacturing practices", *International Journal of Applied Engineering Research*, Volume 10, No 50, pp. 169-173 [ISSN 0973-4562], 2015.
12. R.Sridhar and D.Rajenthirakumar, "Fundamental studies on single point incremental forming of polymers using finite element analysis", *International Journal of Applied Engineering Research*, Volume 10, No 50, pp. 174-177 [ISSN 0973-4562], 2015.
13. R.Sridhar and D Rajenthirakumar, "Influence of process parameters on thickness distribution in single point increment forming of polymers", *International Journal of Applied Engineering Research*, Volume 10, No 50, pp. 210-213 [ISSN 0973-4562], 2015.
14. D Rajenthirakumar, "Value stream mapping and work standardization as tools for lean manufacturing implementation: A case study of an Indian manufacturing industry", *International Journal of Engineering Science and Innovative Technology*, Volume 4, Issue 3, pp. 156-163 [ISSN 2319-5967], 2015.

15. D.Rajenthirakumar, "Forward micro extrusion of micro parts and study of effects of grain size", *ACTA Technica Corviniensis – Bulletin of Engineering*, Volume VIII, Part 3, pp. 93-96. [ISSN 2067-3809], 2015.
16. R.Sridhar and D.Rajenthirakumar, "Experimental investigations of material behaviour in forward micro extrusion", *Applied Mechanics and Materials*, Vols. 813-814, pp. 536-540, 2015.
17. M.Ramu, "Modelling Surface Finish For Aluminium Based Hybrid Metal Matrix Composite By RSM" *International Journal of Applied Engineering Research*, Volume 10, Number 9, pp. 21885-21897, ISSN 0973-4562, Research India Publications, 2015.
18. M.Yuvaraja, M.Senthilkumar, "Shape memory alloy-based adaptive-passive dynamic vibration absorber for vibration control in piping applications, *Journal of Vibration and Control*, Vol. 21(9), 1838-1847 ISSN 1077-5463, SAGE 2015.
19. M.Senthikumar, M.Yuvaraja, "Fault diagnosis of centrifugal pump and vibration Control using shape memory alloy based ATDVA", *Applied Mechanics and Materials, SCImago Journal & Country Rank (SJRT) Thomson Reuters (WoS)*, Vol.787, 927-931, ISSN 1660-9336, Trans Tech Publications, Switzerland, 2015.
20. R.Jayachitra, "Measurement of Supply Chain Conflicts: a Petri Net Approach", *International Journal of Applied Engineering Research*, Volume 10, Number 9, pp. 21683-21698, ISSN 0973 – 4562, Research India Publication, 2015.
21. K.Sripriyan, "Experimental Analysis of Fork type Semi-Automated Weeding Machine in Paddy Field", *International Journal on Recent Technologies in Mechanical and Electrical Engineering (IJRMEE)*, Volume: 2 Issue: 8 / Page No: 36 - 40 , ISSN: 2349-7947, Auricle Technologies Pvt. Ltd. 2015.
22. G.Sundararaj, "Estimation of failure probability of chlorine storage facility", *International Journal of Applied Environmental Sciences*, Vol. 8, pp. 2679- 2694.
23. G.Sundararaj, "Development of a mitigation model for storage facility to reduce the consequence of chlorine release", *International Journal of Innovative Research in science, Engineering and Technology*, Vol.2, pp. 494-502.
24. G.Sundararaj, "An automated mitigation model for chlorine release by proposing modifications in the existing plant facilities", *Applied Mechanics and Materials*, Vol.592-594, pp. 2470-2474. doi: 10.4028.
25. G.Sundararaj, "Accidental Release of Chlorine from a Storage Facility and an On-site Emergency Mock Drill: A Case Study", *The Scientific World Journal*, Vol. 2015, Article ID: 483216, doi:10.1155/2015/483216.
26. A P Senthil Kumar, "Optimization of Rib to channel ratios on serpentine flow channel design and operating parameter on proton exchange membrane fuel cell", *International Journal of Applied Engineering Research*, 0973-4562.
27. A P Senthil Kumar, "Numerical studies on PEM Fuel cell with different landing to channel width to flow channel", *Procedia Engg*, 97(2014)1534-1542, Elsevier.
28. A P Senthil Kumar, "Finite Element Analysis of Laminated and Bimetallic spur gear", *International Journal of Applied Engg Research*, 2371-2392,
29. A P Senthil Kumar, "Effect of Multi-pass Serpentine Flow Field Designs on the Performance of Proton Exchange Membrane Fuel cell", *International Journal of Applied Engg Research*, 0973-4562.
30. A P Senthil Kumar, "Numerical investigation of performance studies on single pass PEM fuel cell with various flow channel design", *Applied Mechanics and Materials*, 592-594, Trans Tech Publication.
31. S. Udhayakumar, P. Prabakaran, S. Sivasubramaniam and S. Ganesan, "Factors influencing conveying velocity of prismatic parts on a vibratory feeder", *ACTA TECHNICA CORVINIENSIS, Bulletin of Engg, Fascicule 4, TOME VIII*, pp85-88, ISSN: 2067-3809.
32. S.Babu, K.Manisekar, "Static and local Strain Analysis of High Hardened Linear Model Mock-Up Bearing for Fast Breeder Reactor", *Materials Science Forum, Scope as journal*, Vols. 830-831, PP 223-226. Publication: Trans Tech Publications; ISSN: 1662-9752.
33. A.Adhyaan, "Investigation on the effect of Fused Deposition Modeling Process Parameters on Flexural and Surface Roughness properties of PC-ABS blend", *International Journal on Recent Technologies in Mechanical and Electrical Engineering, IJRMEE*, Volume 2, PP: 41 – 47, ISSN: 2349-7947, Auricle Technologies Pvt. Ltd., Issue 8, 15 August 2015.
34. K.Sripriyan, "Line balancing technique for labor optimization and productivity improvement in a compressor manufacturing industry", *International Journal of Advanced and Innovative Research*, Volume 4 / Issue 4 / Page No: 631 / ISSN: 2278-7844.
35. K.Sripriyan, "Experimental Analysis of Fork type Semi-Automated Weeding Machine in Paddy Field", *International Journal on Recent Technologies in Mechanical and Electrical Engineering (IJRMEE)*, Volume: 2 Issue: 8 / Page No: 36 - 40 , ISSN: 2349-7947, Auricle Technologies Pvt. Ltd./ August 2015.

36. K.Natarajan and C Narayanaswamy, "Analysis of Casting Defects in a Cast Iron Foundry using DMEA Technque", *International Journal of Applied Engineering Research*, ISSN 0973 – 4562, Volume 10, Number 16 (2015), pp 38038 – 38046, Research India Publications.
37. K.Natarajan and C Narayanaswamy, "A Study of Casting Defects and Supply Chain m in Cast Iron Foundry Process", *International Journal of Applied Engineering Research*, ISSN 0973 – 4562, Volume 10, Number 55 (2015), pp 4022 – 4028, Research India Publications

3.7.2 Papers published in national journals

1. R. Joswa Caxton, K. Sadesh, D. Rajenthirakumar, "Work standardization and line balancing of CNC machine cells", *National Journal of Technology* (June-2015), Volume: 11 (No. 2) , pp. 30-36 (ISSN: 0973-1334).
2. Muralidhar D, Yuvaraja M, "Anthropometric and Ergonomic consideration in Lathe Design", *National Journal of Technology*, Vol. 11(3), 35-40, ISSN-0973-1334, 2015
3. Vengudupathi, Yuvaraja M, "Failure mode based Reliability assessment of Heating Plug Control Unit", *National Journal of Technology*, Vol. 11(2),37-42, ISSN-0973-1334, 2015.
4. D Rajenthirakumar, "Work standardization and line balancing of CNC machine cells", *National journal of technology*, No. 2, Vol. 11, ISSN 0973-1334, june 2015.
5. R.Jayachitra, "Design and optimization of pollution control devices (PCD) for small scale foundries", *National Journal of Technology*, Vol:11 , No:2, pp. 52 – 59, ISSN – 0973 – 1334, 2015.
6. S.Udhayakumar, M.Anandavel, S.Sweatha, S.ShanmugaPrabu V.S.Dinesh, "Design and Development of Head Controlled Electric Wheel Chair", *National Journal of Technology*, Volume: 11 (No. 3), pp. 41-44, ISSN: 0973-1334, 2015.
7. K.Sripriyan, "Analysis and Implementation of Lean Tools For Lead Time Reduction in a Compressor Manufacturing Industry", *National Journal of Technology*, Volume : 11 No.3 Sep 2015 / ISSN :0973-1334, 2015.
8. S.Vijay, "Ergonomic Analysis on Manual Material Handling Process", *National Journal of Technology*, ISSN – 0973 – 1334.

3.8. Visits by students

S.No.	Name of student	Roll No.	Place of visit	Period	Purpose
1	Rahul M	12M244	Glasgow Caledonian University, Scotland	June 22 nd 2015 – July 3 rd 2015	Summer School
2	Prawin K P	12M241			
3	Derrick Nassan T	12M213			
4	Santhosh R	13M242			
5	Siddhaarth S	13M245			
6	Yalamanchi Varun	13M261	Hochschule Esslingen University of Applied Sciences, Esslingen, Germany	September 2015 –January 2016	Student exchange programme
7	Tarum Kumar Mitruka V	13M254			
8	Ammadurai S	13MF61	Mold Master Technology, Germany	July 2015 – October 2015	Project Phase I

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of Students
1	BE Mechanical G1 - I Year	62
2	BE Mechanical G1 - II Year	71
3	BE Mechanical G1 - III Year	75
4	BE Mechanical G1 - IV Year	79

S. No.	Class	No. of Students
5	BE Mechanical G2 - I Year	63
6	BE Mechanical G2 - II Year	75
7	BE Mechanical G2 - III Year	72
8	BE Mechanical G2 - IV Year	68
9	BE Mechanical (SW) - I Year	62
10	BE Mechanical (SW) - II Year	71
11	BE Mechanical (SW) - III Year	75
12	BE Mechanical (SW) - IV Year	66
13	BE Mechanical (SW) - V Year	69
14	M.E Engineering Design – I Year	18
15	M.E Engineering Design – II Year	16
16	M.E Computer Integrated Manufacturing – I Year	12
17	M.E Computer Integrated Manufacturing – II Year	13
18	M.E Industrial Engineering – I Year	16
19	M.E Industrial Engineering – II Year	16
20	M.E Industrial Engineering(PT) – I Year	16
21	M.E Industrial Engineering(PT) – III Year	16
22	M.E Lean Manufacturing – I Year	11
23	M.E Lean Manufacturing – II Year	14
24	M.E. Energy Engineering – I year	11
25	M.E. Energy Engineering – I year	13

4.2. Association activity

S.No.	Topic	Chief Guest & Affiliation	No. of participants	Date
1	Mock test	-	70	07.08.2015
2	Mech Trivia	Mr. Mohanraj S, Assistant Professor, Department of Mechanical Engineering, PSGCT, Coimbatore	80	17.08.2015
3	F1- car carbon and carbon clutches	Dr. Peter Brooks B.Sc, Ph.D,PGCLTHE, Program Manager- M.Sc Automotive Engineering, University of Leeds, UK	200	08.09.2015
4	Sheet Metal Design Contest	-	50	11.09.2015
5	Papyrus	Mr. Balavignesh S, Assistant Professor, Department of Mechanical Engineering, PSGCT, Coimbatore.	30	30.09.2015
6	Out Reach Activity to PSG Manavarillam	-	70	17.10.2015
7	Mechanical Quiz	-	50	17.11.2015
8	Industrial Quiz	-	65	04.01.2016
9	Sketcher	Mr. Mohanraj S, Assistant Professor, Department of Mechanical Engineering, PSGCT, Coimbatore	45	05.01.2016

S.No.	Topic	Chief Guest & Affiliation	No. of participants	Date
10	PRAYATNA v6.0 (An Intra-College Techno Extravaganza)	Mr. Kalaiyaran M, Assistant Professor, Department of Mechanical Engineering, PSGCT, Coimbatore	300	06.02.2016
11	Thermo- Mechanical Simulation of casting process	Mr. Ashok Kumar Nallathambi, Otto Von Guericke university, Magdeburg, Germany	150	09.03.2016
12	Award of Proficiency	Mr. Swamy, General Manager, Jeyam Automobiles, Coimbatore	80	21.03.2016

4.3 Activities of technical society – student chapter

American Society of Mechanical Engineers (ASME) – Student section				
S.No	Topic	Chief Guest & Affiliation	No. of Participants	Date
1.	Orientation	Dr.B.Giriraj , Principal, PSG Polytechnic college	175	19.08.2015
2.	Sensor Interface Workshop	Dr. K. Natarajan, Professor Department of Mechanical Engineering, PSGCT, Coimbatore	31	22.08.2015
3.	Aavishkar	Mr. K. Sadesh Department of Mechanical Engineering, PSGCT, Coimbatore	95	05.10.2015
4.	Ideas Presentation	Mr. V. Satish Chandran(judge) Department of Mechanical Engineering, PSGCT, Coimbatore	20	22.09.2015
5.	Guest lecture	Dr. Ian Phasby, Pro-Vice Chancellor, University of Hull	200	07.01.2016
6.	Prayatna	Dr. M. Ramu, Department of Mechanical Engineering, PSGCT, Coimbatore	105	05.02.2016
7	Sensorics workshop (Under KRIYA)	Dr. S. Udhayakumar Department of Mechanical Engineering, PSGCT, Coimbatore	102	12.02.2016
8.	Mechsimulated (ANSYS Workshop)	Mr. K. Sadesh Department of Mechanical Engineering, PSGCT, Coimbatore	13	27.02.2016
9.	Pneumo	Dr. G. Sundararaj Department of Mechanical Engineering, PSGCT, Coimbatore	60	12.03.2016
10.	Proficiency award distribution	Mr. Samy V L, General Manager Jayem Automotives	100	21.03.2016

4.4. Awards won by students

S.No.	Roll No.	Name of student	Nature of activity	Award	Awarded by	Date
1.	13M158	Suriya prakash S	Paper presentation	1 st prize	Papyrus event-AME	30.08.2015
2.	13M263	Edula Prathima Reddy	Paper presentation	1 st prize	Prayatna-ASME	06.02.2016
3.	13M110	Devanand S.S	Event	2 nd prize	Udaan,Yugam by Kumaraguru College of Technology, Coimbatore	11.02.2016
4.	13M161	Vimal Kumar S	Zonals- tennis coimbatore	3 rd Place	Anna University Chennai	08.09.2014
5.	11M126	R.Kishore	Word skill competition	3 rd Place	KGTTI, Bangalore	09.07.2014
6.	11M157	C.Suresh	Workshop prodigy	1 st place	Thiagaraja college, Madurai	23.01.2015
7.	11M146	R.L.Ruban Kumar	AME best manager	2 nd place	PSG CT	7.10.2015
8.	15M118	K.Harish Guptha	Spot Light - ELS verve	2 nd place		28.02.2016
9.	15M107	R.S Ashwin Kumar	AME mech Trivia	3 rd place		14.08.2015
10.	15M115	M. Gopinath	NSS quiz	1 st place		28.02.2016
11.	15M146	Selvakumar	ELS Verve-spotlight	2 nd place		28.02.2016
			ASME Auto quiz	3 rd place		08.10.2015
12.	15M103	Amudhan	ASME General quiz	2 nd place	PSG CT	06.10.2015
			NCC flag area Sapak tekra	2 nd place		5.03.2016
			ELS verve spotlight	2 nd place	PSG CT	28.2.2016,
13.	15M139	R.Ramkumar	ASME General quiz	3 rd place	PSG CT	8.10.2015
			ELS verve-chartfest,	2 nd place		28.02.2016
14.	15M157	U. Venkatesh	Interstate sapak tekraw tournament,	2 nd place		
			Intracollege sapak tekraw	2 nd place		5.3.2016
			Spotlight- ELS verve	2 nd place		28.02.2016

S.No.	Roll No.	Name of student	Nature of activity	Award	Awarded by	Date
15.	15M134	A. Muthu kumar	Nature club-Character building	2 nd place		14.08.2015
16.	15M137	S. Raghul	Mech Trivia 2k15	2 nd place		8.10.2015
			ASME general quiz	3 rd place		8.10.2015
			ASME auto quiz	2 nd place		08.10.2015
17.	15M109	V. Bala mugunth	Astronomy Club quiz	3 rd place		12.10.2015
18.	15M125	S. Keethivasan	ASME- General quiz	1 st place		6.10.2015
19.	15M148	S. Shivaharshan	Auto quiz	1 st place		8.10.2015
			Best manager AME	1 st place		07.10.2015
			Mech Trivia general quiz	1 st place		14.08.2015
			NSS general quiz	1 st place		08.10.2015
20.	15M133	Muthu shanmugam	Back to school science quiz	3 rd place	PSG CT	06.08.2015
			ELS verve Spotlight	2 nd place		28.02.2016
21.	15M149	R. Shivani Sagar	Sapak tekraw,	2 nd place		05.03.2016
22.	15M163	Vivek Vaisaras	Treasure hunt	2 nd place		18.09.2015
			AME certificate	3 rd place		07.10.2015
23.	15M162	Vishnuvarthan	NCC foot drill	1 st place		12.3.2016
24.	15M127	T. Lagnesh	ASME just a minute	3 rd place		7.10.2015
			Handball zonal	3 rd place	PSG CT	18.09.2015
25.	15M135	Pradeep	Sastra trophy	3 rd place		11.02.2016
			PSG Tech trophy	4 th place		20.02.2016
			Treasure hunt,	2 nd place		18.09.2015
26.	15M104	Arvinth. S	Sapak tekraw	2 nd place		05.03.2015
			AME just a minute	2 nd place		7.10.2015
27.	15M122	Jugal Balaji	Sapak tekraw	2 nd place		13.03.2015
28.	15M105	K. Ashwin	Math paper presentation	1 st place	Kongu Engineering College, Erode	10.02.2016

S.No.	Roll No.	Name of student	Nature of activity	Award	Awarded by	Date
29.	15M145	Saravana Kumar	AME sketches	1 st place	PSG CT	14.08.2015
30.	15M155	E. Suriya	AME creator	2 nd place		14.08.2015
			Spotlight	2 nd place		28.02.2016
31.	15M131	Mohanraj	Javelin	1 st place		08.03.2016
32.	15M126	S.Kiruthika	Shot put	1 st place		08.03.2016
			Discuss throw	2 nd place		08.03.2016
			Schumi of Tech.	3 rd Place	SAE	05.04.2016
33.	12M105	Akshay Muralidharan	Logos and captions	1 st price	Production Engineering Association and SME	12.02.2015
34.	12M913	R Vinith Varshan	Zonals - Badminton, coimbatore	1 st place	Anna university, chennai	24.08.2015
35.	14M227	R.Karthick	7 th centies championship	2 nd place	Inter engineering sports	03.02.2016
			Zonals- badminton	1 st place	Anna University, Chennai	24.08.2015
36.	14M207	R.Anbarasan	Automobile quiz	1 st place	PSG CT	13.02.2016
			Intramurals badminton	1 st place		08.02.2016
			Automobile quiz	1 st place		13.02.2016
37.	15M438	V.Gohul Kannan	Javelin	2 nd place	Anna university Paralympic Athletic meet, Coimbatore	27.02.2016
			Discuss	2 nd place		27.02.2016
38.	14M101	Aakash Mari	50mts	2 nd place		27.02.2016
			Shot put	3 rd place	Anna university Paralympic Athletic meet, Coimbatore	26.07.2015
			Mechanical quiz	1 st place	AME, PSG CT	05.11.2015
			Discuss	2 nd place	Department of Physical education, PSG CT	08.03.2016
			Javelin	3 rd place		08.03.2016
			Shot put	3 rd place		08.03.2016
			Dr.Venkatraman Award for Excellence in Engineering Graphics	1 st place	1987 Batch Alumni of PSG CT, Coimbatore	18.07.2015
			Desmod online	2 nd place	MECHANICA, IIT, Chennai	05.03.2016
39.	14M116	Dinesh Krishna N	Desmod offline	2 nd place		05.03.2016
40.	14M155	Srivasthan R	Project presentation	1 st place	INC Department, PSG CT	12.03.2016
			Dwell into	1 st place		12.03.2016

S.No.	Roll No.	Name of student	Nature of activity	Award	Awarded by	Date
			industries			
			Virtual contraption	2 nd place	Solar energy society of india, PSG CT	11.03.2015
			Conceptualise	2 nd place	KRIYA, PSG CT	13.02.2016
			Manufacturing quiz	2 nd place	ASME , PSG CT	25.09.2014
			Virtual contraption	2 nd place	ASME , PSG CT	08.10.2015
			Inter state sepak takraw tournament	1 st place	Department of Physical education, PSGCT	10.03.2016

4.5. Final year project work

4.5.1 UG project (Regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	12M134	Kishhore K.	Enhancement of Static and Dynamic Characteristics on CNC Lathe Bed using Epoxy Granite and form Design	Mr.C.Shanmugam	Galaxy, Bangalore
	12M142	Prasad K.			
	12M147	Rakesh Kanna S.A.			
2	12M103	Aishwarya A.	Development and Tribological Testing of Nanolubricants for IC engine testing	Mr.P.Nallasamy	-
	12M120	Gangadhar R.			
	12M163	Varun R.			
3	12M127	Hariprakash N.	Investigation on transient thermal behavior of axes feed drive system and bed assembly in CNC Lathe	Dr.V.Prabhu Raja	-
	12M162	Surendhranath G.M.			
	13M410	Sabari G.			
4	12M105	Akshay Muralidharan	Performance improvement in a diesel engine using Exhaust Gas Recirculation	Dr.K.Punitharani	-
	12M106	Alex Pandiyan P.			
	12M108	Aravind S.			
5	12M132	Kaushik M.	Assembly and testing of a directly coupled hybrid power train to a two wheeler and integration with a virtual instrumentation software	Mr.C.Manoharan	-
	12M154	Savio Sharand Royan A.			
	12M156	Shankar Krishna S.			
6	12M102	Aditya Venkat J. Ramdass	Design and fabrication of an automated coining machine	Dr.G.Sundararaj	-
	12M128	Harshavardhan R.			
	13M401	Ashwath Ram G.			
7	12M145	Premnath A.	Productivity enhancement in the shop floor of a	Dr. A.R. Lakshmanan	BESTOMECH Industries
	12M152	Sasithar R.			

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
	12M155	Shailesh R.	Manufacturing Industry		Coimbatore
8	12M117	Chandru B.	Experimental study on Temperature effects on machining of CFRP with Router tools	Mr. R. Prakash	-
	12M153	Sathesh Kumar R.			
	13M406	Manoj Kumar R.			
9	12M104	Akilan A.	Productivity improvement by lean techniques	Mr. V.Vijayanand	Unirols Airtex Coimbatore
	12M115	Boojith M.			
	12M159	Sree Krishna R. G.			
10	12M129	Jeyesh P. S.	Design and fabrication of general purpose Hydraulic Tapping Machine	Mr. D. Martin Suresh Babu	Barani Hydraulics India Pvt.Ltd., Coimbatore
	12M130	Kamalraj U. K.			
	12M158	Sivaram M.			
11	12M109	Arjun Siddharth	Optimizing the machining parameters to increase the tool life in CNC Lathe	Mr. C. Manoharan	-
	12M118	Chibi R. S.			
	12M144	Prem Kumar P.			
12	12M138	Mohd Imtiaz S.	Process improvement and cycle time reduction in a valve machining industry	Dr. A. R. Lakshmanan	Myco Industry Complete Machining Solutions
	12M141	Naveen K.			
	12M146	Raghuveer T R.			
13	12M137	Marimuthu C.	Implementation of Lean tools in a pump industry	Dr. S. Syath Abuthakeer	-
	12M157	Siddheshwaran N.			
	13M408	Pens Bavakar P.			
14	12M101	Adhithyan S.	Design of Hybrid composite lathe bed	Dr. P. R. Thyla	BFW, Bangalore
	12M133	Kesavan S.			
	12M139	Mohnish P.			
15	12M160	Sribalaji A.	Design fabrication of flat wire feeder mechanism in GMAW and process optimization	Dr. K. Ragu	-
	12M165	Vignesh Kumar E.			
	12M166	Yokesh Kumar N.S.			
16	11M155	Somu M.	Dynamic wear testing of Al-SiC sintered spur gear	Mr. V. Vijaya Kumar	-
	12M135	Kumaravelu P.			
	13M413	Sureshkumar K.			
17	12M111	Ashok V.	Effect of physical and geometrical parameters of Prismatic parts and Vibratory characteristics of Vibratory Feeders on conveying velocity	Dr. S. Udayakumar	-
	12M116	Boopathy Raja A.			
	12M164	Vignesh V.			
18	12M143	Prasanth N.	Analysis of Formability of Polymers Using Single Point Incremental Forming	Mr. R. Sridhar	-
	13M405	Kottaiyan P.			
	13M412	Santhana Raj J.			
19	12M107	Anandaroopan M.	Optimization of machining parameters in electrical discharge machining using	Dr. G. Sundararaj	-
	12M149	Santhosh G.			
	12M151	Sasikumar S.			

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
			Taguchi method		
20	12M123	Gowtham M.	Study on effect of form design and apertures on stiffness characteristics of VMC machine	Dr. P. R. Thyla	BFW, Bangalore
	12M124	Gowtham S.			
	12M150	Santhosh Mani E.			
21	12M113	Asween Raaj B.	Optimization of process parameters for epoxy granite using Taguchi method	Mr. D. Shanmuga Sundaram	Galaxy, Bangalore
	12M114	Bhuvanesh Kumar V.			
	13M409	Prasanth R.			
22	12M112	Ashwin Kumar S.	Design and development of impeller for travelling cleaner used in a two for one twister textile machine	Dr. T. Prabhu	-
	12M126	Hari Prakash C.			
	12M131	Karthikeyan M.			
23	12M110	Ashiq Hyder M.	Productivity improvement in steering knuckle machining line using lean techniques	Dr. R. Jayachitra	Sakthi Auto Component Ltd., Tirupur
	12M148	Ranjith D.			
24	13M404	Karthick Raja D.	Improvement of productivity in relay manufacturing by using lean tools	Dr. S. P. Vendhan	Salzer Electronics Ltd., Coimbatore
	13M407	Mohanraj T.			
	13M411	Sakthivelan A.			
25	10M122	Karamathullah D. R.	Optimization study on symmetrical shapes for effective thermal conductivity on two-phase materials	Dr. A. P. Senthilkumar	-
	12M119	Deepak V.			
	12M140	Murali S. D.			
	12M161	Sundhar P.			
26	12M122	Gopi Krishnan R.	Design and control of an amphibian robot using Jansen and Klann Mechanisms	Dr. K. Ganesan	Indian Institute of Technology, Indore
27	12M136	Lalith Ashwin S.	Quality assurance in cylinder head of petrol engine	Dr. R. Jayachitra	Ford India Pvt. Ltd., Chengalpattu

4.5.2. UG project- G2 (Regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	12M201	Abhay Kumar M B	Enhancement of dynamic behaviour of Spindle in high speed machining	Dr.V.Prabhu Raja	-
	12M226	Kishan Kumar			
	12M243	Raghunath S			
2	12M249	Sai Tharun U	Experimental investigation of deformation size effects in micro extrusion	Dr.D.Rajenthira Kumar	-
	12M263	Vivek Balakrishnan			
	12M235	Pavithran R			
3	12M262	Vignesh C B	Implementation of Lean	Dr. S. Syath	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
	12M229	Mohammed farooq K	Tools in Plastic Injection Moulding Industry	Abutahakeer	
	13M438	Naveen A			
4	12M214	Dharmaraj S	Effect of Particle Size on Mechanical Characterization of Epoxy Granite for the use in machine tool structure	Mr. C. Shanmugam	Galaxy, Bangalore
	12M261	Veerapan S			
	13M440	Suresh S			
5	12M225	Kavinkumar K	Parametric Effect of Lean Manufacturing and Lean Implementation in paper Manufacturing Industry	Dr. S. Syath Abutahakeer	-
	12M218	Harish R			
	12M259	Varun Rengarajan V			
6	12M254	Sivasankar A	Experimental Investigation of Thin pipe Bends for Performance Enhancement	Mr.P. Govindaraj	-
	12M212	Deepakkumar K			
	12M231	Naveen M			
7	12M242	Putta Vamsy Viswanath	Design Analysis and Simulation of Roller Screw Mechanism	Dr.K.Natarajan	-
	12M237	Pranav C S K			
	12M223	Karthik M			
	12M228	Meenakshi Sundaram R			
8	13M437	Manoj C N	Performance Analysis of Proton Exchange Membrane Fuel Cell using Perforated Flow Field Plates	Mr. P. Nallasamy	-
	13M435	Krishnakumar B			
	12M211	Chandrasekaran R			
9	12M239	Pravin G	Design and fabrication of hydrostatic deep rolling tool for surface finishing applications	Mr. K. Sadesh	ABHI Fine Products Coimbatore
	12M219	Jeff Chrispine P			
	12M221	Karthick G			
10	12M203	Ajay Sekar C	Experimental investigations on Mechanical Characterization of Glass Fiber Filled Epoxy Granite	Mr. C. Shanmugam	Galaxy, Bangalore
	12M209	Balaji S			
	12M258	Surendar J			
11	12M230	Mohit Singhala	Investigation of anisotropic friction in snake skin sheds based on locomotion technique	Mr. A. S. Prasanth	-
	12M208	Balaji S			
	12M260	Vasantha Kumar V			
12	13M434	Karthick Raj S	Experimental investigation of fatigue life assessment of wind turbine blade and possible enhancements	Mr. V. Vijay Anand	-
	12M253	Shrinath R K			
	12M257	Sudhakar R			
13	12M222	Karthick Ragul S M	Smart material based tunable energy harvesting system	Dr.M. Yuvaraja	-
	12M217	Hari Sundhar V			
	12M251	Sanjeevakkumar V			
14	12M215	Ezhilamuthan R	Development and Tribological Investigation of	Mr.P. Nallasamy	-
	12M216	Ganesh Ramu R N			

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
	12M247	Rajkumar M	Multi-Particle Nanolubricants		
15	12M241	Prawin K P	Performance Analysis of Incremental Forming Process on Polymers	Mr. R. Sridhar	-
	12M244	Rahul M			
	12M207	Arvindh D			
16	12M232	Naveen Raja R	Design and Manufacture of Mini CNC	Dr. A. Ramesh Babu	-
	12M256	Sri Sharan M			
	12M233	Naveenprasanth R			
17	12M252	Sanjeevi Jayadevan V	Design and Fabrication of a Bending Die	Dr. K. Ragu	-
	12M202	Adithya Mathivanan			
	12M238	Praneshwaran T			
18	12M245	Rahul Narendran	Solar Powered Air- Conditioning system in a Car	Dr. K. Punitharani	-
	13M433	Jothimahesh G			
	12M204	Aravindakumar V M			
19	12M255	Sree Ram Narayanan R	Design Modification and Value Analysis of Plaiter Assembly in Soft Flow Fabric Dyeing Machine	Dr. S. Udhayakumar	-
	12M213	Derrick Nassan T			
	12M250	Sanjeev Kumar G			
20	12M248	Ranjith Kumar J	Numerical Prediction of Effective Thermal Conductivity of Two Phase Materials for Asymmetric Inclusion Shapes	Dr.A.P.Senthil Kumar	-
	12M206	Arvind Kumar M R			
	12M236	Prakash D			
21	12M224	Kavinesh Sankaar TS	Fabrication and Testing of Metal Ceramic Composites for Body Armor Application	Mr. A. S. Prasanth	-
	12M234	Parithi K			
	12M220	Kaniyan S			
22	13M441	Yathish J	Performance analysis of thermo syphon in integrated solar water heater	Mr. P. Govindaraj	-
	12M240	Pravinrajan M			

4.5.3. UG project (Sandwich)

S.No.	Roll No.	Name	Title of The Project	Guide	Industry/ Institute associated
1	11M634	Nandakumar N	Investigating mechanical and thermal characteristics of Epoxy Granite	Dr.K.Krishna murthy	Galaxy, Bangalore
	11M603	Ashwin Deepak K J			
	11M623	Karthi M			
2	11M601	Anantha Kirthan K K	Efficiency enhancement of boiler	Mr. R.Venkatesh	-
	11M644	Rajclinton P			
	11M649	Sathurtha Mourian S			
3	12M913	Vinith Varshan R	Failure analysis of a crane	Ms. B.Vaishnavi	-

S.No.	Roll No.	Name	Title of The Project	Guide	Industry/ Institute associated
	11M638	Potuneedi Tejaasvin	planetary gear box		
	11M654	Sureddi Pavan			
4	11M615	Gokul P	Establishing strength and joint characteristics of Epoxy Granite for machine tool	Dr.K.Krishna murthy	Galaxy, Bangalore
	11M633	Muthu SP			
	11M622	Karpaga Priyan K			
5	11M660	Vineeth C	Design of combustion blower	Mr.R.Venkatesh	-
	12M907	Deenadayalan M			
	11M651	Sidhu Ramaswamy P			
6	12M914	Vijayakumar S	Numerical and experimental investigations on static and dynamic characteristics of base-column assembly of VMC with Epoxy Granite as an alternate material	Mr.S. Mohanraj	BFW, Bangalore
	11M647	Santhana krishnan R			
	11M655	Vaidyanathan P R			
7	11M630	Mathivanan P	Study of static and dynamic behaviour of Epoxy Granite VMC machine column with reinforcements	Mr.M.Kalayarasan	BFW, Bangalore
	12M906	Karthikeyan M			
	12M911	Karthic V			
8	11M608	Balamurugan @ Prasanth S	Design, development and performance study of a prototype vertical axis wind turbine	Mr.P.Viswanathan	-
	11M659	Vigneshwaran K			
	11M618	Jagan V			
9	11M604	Asvin Kumar S	Stiffness enhancement in VMC base using Epoxy Granite	Mr.P.Dhanapal	BFW, Bangalore
	11M605	Azaruddin A			
	11M621	Kanishkar B			
10	11M613	Dewagar J	Characterisation of porous carbon nano fibers to be used in fuel cell electrodes	Dr.P.Radha krishnan	PSG IAS, Coimbatore
	11M656	Vallaban G			
	12M901	Hari Krishnan V			
11	11M650	Sesha Sai Y	Sound attenuation in automotives using natural fibers	Mr.R.Arun kumar	-
	11M636	Noordeen Ahamed A			
	11M617	Hariharan D			
12	11M602	Arulkumaran M	Development of candidate dielectric fluid based cooling system for solar panel performance enhancement- experimental investigation	Dr.MadhuGanesh	-
	11M619	Josmith Ephraim J			
	11M631	Mohamed Assalam N			
13	11M639	Prabakar N	Investigating on the effect of bolted joint parameter on dynamics of machine tool	Mr. S.Mohanraj	-
	11M653	Sudar G M			
	11M642	Premkumar P			
14	11M646	Sam Thomson	Two phase continuous composites for friction and braking applications	Mr. A.S.Prsasanth	-
	11M606	Bala Shanmugam R			
	11M635	Naveen Raj E			
15	11M645	Sakthivel L	Development of metal	Dr.P. Radha	PSG IAS,

S.No.	Roll No.	Name	Title of The Project	Guide	Industry/ Institute associated
	11M632	Mohan Kumar K	additive manufacturing machine	krishnan	Coimbatore
	11M626	Kavinkumar S			
	11M657	Vignesh M			
16	11M609	Chidambaram EL	Assessing the machinability of super alloys using nanocoated tool inserts	Dr.P.Radha krishnan	-
	11M607	Balachandar K			
	11M641	Praveenkumar S			
	11M637	Poonkuzhali M			
17	12M908	Nisanth A	Lean supply chain managements in local markets	Mr.S. Vijay	-
	12M910	Sri Saravanan G K			
	12M902	Pradeepkumar C			
18	11M611	Delhiganesh S	Modeling and analysis of structural vibration in machine tools	Mr.K.Sripriyan	-
	11M628	Lakshmanan T			
	12M904	Siddarth A			
	11M625	Kavindhan A			
19	11M658	Vigneshwaran J	Design and development of a mobility aid for the elderly and differently abled	Mr. V.Satish Chandran	-
	12M903	Sandeep D			
	12M909	Balaji T			
20	11M640	Prasath P	Online prediction of vibration analysis in machine tools and evaluation of machining performance	Mr. K.Sripriyan	-
	12M905	Naveen R			
	12M915	Ramesh A			
21	11M616	Gowtham Akshay Kumar S	Development of compatible alloy for Fused Deposition Modeling	Mr. N.Mathimurugan	-
	11M652	Soundararajan G			
	11M627	Kumar P K			
22	11M612	Devaraj K	Mechanical evaluation of porous Ti-Al alloy fabricated by EBM considering the effect of strut size	Mr.A. Adhiyamaan	-
	11M648	Sathishkumar S			
	11M629	Manikandan R			

4.5.4. PG project

4.5.4.1. M.E - Engineering Design

S.No.	Roll No.	Name	Title of the project	Guide	Industry/ Institute associated
1	14MD01	Abdul Rasheed Ahmmed N	Investigation on Epoxy Granite with steel reinforcement to improve static and dynamic characteristics of machine tool base	Mr.P.Dhanabal	BFW, Bangalore
2	14MD02	Anantha Babu M	Balancing of large rotating machines	Mr.P.Viswanathan	-
3	14MD03	Anantha Krishnan S	Parametric study of steel reinforced Epoxy Granite machine tool structure	Mr.R.Venkatesh	Galaxy, Bangalore

S.No.	Roll No.	Name	Title of the project	Guide	Industry/ Institute associated
4	14MD04	Anbumani S	Performance analysis of carbon thrust bearing in submersible pump	Mr.R.Jegathish kumar	-
5	14MD05	Arun Ramnath R	Development of scaled model of machine tool base using Epoxy Granite	Dr.P.R.Thyla	Galaxy, Bangalore
6	14MD06	Bharathvajan K	Modeling and analysis of dynamic characteristics of machine tool structures using receptance coupling sub-structure analysis	Dr.M.Ramu	-
7	14MD07	Karthick G	Experimental and numerical investigation of pull out strength of inserts in Epoxy-Granite	Mr.D.Shanmuga sundaram	Galaxy, Bangalore
8	14MD09	Muvvala Nanda Kishore	Improvement of surface finish during turning operation using MR fluid filled tool-post	Mr.D.Martin Sureshbabu	-
9	14MD10	Raja V	Effect of notch acuity on the tensile properties of hardened steels for large bearing contact analysis	Dr.S.Babu	-
10	14MD11	Sonuj Ravindran	Prediction and improvement of directional stiffness of CNC lathe bed using cae technique for alternate material	Mr.C.Shanmugam	Galaxy, Bangalore
11	14MD31	Balaji Natarajan R	Tribological investigation of biodegradable oil based nanaolubricant for IC engines	Mr.P.Nallasamy	-
12	14MD32	Ganapathy sankar S	Tool geometry optimization for minimization of burr formation during dry drilling of Ti6Al4V	Mr.A.Prabukarthi	-
13	14MD33	Gautham V	Prediction of stability in high speed machining of complex thin walled structures.	Dr.V.Prabhu Raja	-
14	14MD34	Kavisuthan M	Experimental investigation on effect of cutting conditions and vibration in CNC lathe bed	Dr.M.Ramu	-
15	14MD35	Parthasarathy N B	Enhancement of static and dynamic characteristics of machine tool column using form design and steel reinforcement	Mr.M.Kalayarasan	BFW, Bangalore
16	14MD36	Praveen V S	Tolerance design and cost	Dr.K.Ragu	-

S.No.	Roll No.	Name	Title of the project	Guide	Industry/ Institute associated
			optimization of precision mechanical assemblies		

4.5.4.2. M.E - Computer Integrated Manufacturing

S.No.	Roll No.	Name	Title of the project	Guide Name	Industry/ Institute associated
1	14MI01	Amal Madhu M	Development of Al7075-SiC co- continuous composite by gravity infiltration and investigation of surface finish and tool wear in end milling of the composite	Mr.A S Prasanth	-
2	14MI02	Aravinta samy V	Pneumatic air muscle actuated vibratory feeder	Dr.S Udhaya kumar	-
3	14MI03	Balaji K	Development of measurement system for residual stress analysis	Dr.K Ganesan	-
4	14MI04	Balaji N	Design optimization and processing of Si3N4 layer for wear resistant tialn/ Si3N4 nano composite coating	Dr.J Kanchana	-
5	14MI05	Karthikeyan S	Investigation to develop smart device for improving dimensional accuracy in CNC turning machine using additive manufacturing	Dr.N Ganesh Kumar	-
6	14MI06	Mohan A	Design of roll forming tool	Dr.A Ramesh Babu	-
7	14MI07	Mudalayar Manikchand Vikram	Android operated AGV	Mr.M Prathiban	-
8	14MI08	Periyasamy D	Design and development of humanoid robot hand for pick and place application	Mr.C Manoharan	-
9	14MI09	Shanmuga Sarathy R	Experimental study on the end milling of thin parts of aluminium alloy 6061 T6	Dr.K Ganesan	-
10	14MI10	Somu C	Studies on the effect of fatigue on fracturebehavior in welded structure	Dr.M Ramu	-
11	14MI11	Sugit Sam Raj C	Design and analysis of perforated flow field channel for pem fuel cells	Mr.P Nallasamy	-
12	14MI31	Aswath S	Experimental investigation of custom 465 steel under dry machining conditions	Dr.J Kanchana	-

S.No.	Roll No.	Name	Title of the project	Guide Name	Industry/ Institute associated
13	14MI32	Vivek K	Investigation of process parameters in metal deposition process with the temperature measurement setup	Dr.J Kanchana	-

4.5.4.3. M.E. - Industrial Engineering

S.No.	Roll No.	Name	Title of the project	Guide Name	Industry/ Institute associated
1	14MF01	Aravind Babu R	Application of six sigma and value engineering methodologies for process improvement in a manufacturing industry	Mr S Vijay	Roots Industries India Ltd., Coimbatore
2	14MF02	Ashok kumar S	Analysis for work severity and work place design in a hose manufacturing industry	Mr V Satish Chandran	Bluesky Hose Manufacturing India Pvt. Ltd., Coimbatore
3	14MF03	Baviskar Aman vilas	Achieving operational excellence through inventory management and measuring its effectiveness	Mr A Prabukarthi	-
4	14MF04	Gopinath P	Improving the service quality in a perishable product retail outlet by assessing service gaps : a survey based approach	Dr A R Lakshmanan	-
5	14MF06	Poornima C	Assessment of performance measure for pollution control devices in a small scale foundry using artificial neural network	Dr R Jayachitra	-
6	14MF07	Pradeep P	Cost and risk management in procurement of materials through imports in a paper manufacturing industry	Dr A R Lakshmanan	Tamilnadu Newsprint and Papers Ltd., Karur
7	14MF08	Raja sekaran C	Establishment of a periodic review policy for a manufacturing industry	Mr A Adhiyamaan	ZF Wind Power Coimbatore
8	14MF09	Ram kumar	Setup time reduction and cost optimization in special waste management	Dr M Yuvaraja	ECO Special Waste Management Pvt. Ltd., Singapore
9	14MF10	Sahul Hameed H	Multi response optimization in drilling of titanium alloy(Ti6Al4V): an exploration	Mr A Prabukarthi	-

S.No.	Roll No.	Name	Title of the project	Guide Name	Industry/ Institute associated
			of Taguchi integrated optimization techniques		
10	14MF11	Siddarthan G M	Improving the production schedule using genetic algorithm in a textile industry	Mr A Prabukarthi	-
11	14MF31	Ashwin P	Optimization of machining parameters on gfrp composites using fuzzy logic and genetic algorithm	Dr M Yuvaraja	-
12	14MF32	Deepak Nallasamy K	Modelling and optimization of closed loop supply chain network	Dr K Natrajan	-
13	14MF33	Kumar G	Lead time reduction of submersible pump tube using Lean tools	Mr V Vijayakumar	CRI Pumps Pvt. Ltd., Coimbatore
14	14MF34	Matts Aby JO	Establishment of work standards in the packing section of a pharmaceutical industry using method study	Mr K Sadesh	Sance Laboratories Pvt. Ltd., Kerala
15	14MF35	Raghu Raam M	Reduction of change over time in injection moulding machine using Lean tools	Mr N Mathimurugan	Salzer Electronics Ltd., Coimbatore
16	14MF36	Varun Cherian	Improving production through development of training modules, documents and implementation in a garment manufacturing industry	Dr G Sundararaj	Laguna Clothing Pvt. , Kanakapura

4.5.4.4. M.E - Lean Manufacturing

S.No.	Roll No.	Name	Title of the project	Guide	Industry/ Institute associated
1	14MM01	Abilaash.A	Development of web based application for Lean manufacturing	Mr.S.Vijay	Advanced Design and Manufacturing Technologies Pvt. Ltd., Chennai
2	14MM02	Anand.K	Productivity improvement in a gear manufacturing industry	Mr.R.Sridhar	ZF Wind Power Coimbatore
3	14MM03	Bharath kumar.S	Productivity improvement in an apparel industry using Lean techniques	Mr.A.S. Prasanth	Crimson Garments , Tiruppur
4	14MM04	Brajesh Kumar Kanchan	A framework for implementation of just in time production system in valve manufacturing industry	Dr.D.Rajenthira kumar	Velan Valves India Pvt. Ltd., Coimbatore

S.No.	Roll No.	Name	Title of the project	Guide	Industry/ Institute associated
5	14MM05	Gomathi Prabha. M	Performance improvement and cost reduction of wet scrubber using value analysis technique	Dr.R.Jayachitra	Deepam Industries, Coimbatore
6	14MM06	Illakiya.R	Optimization of inventory management in a manufacturing industry	Ms.B.Vaishnavi	ATS ELGI Ltd., Coimbatore
7	14MM07	Karthikeyan.L	Productivity improvement of gear box manufacturing using Lean approach	Dr.S.Syath Abuthakeer	ZF Wind Power, Coimbatore
8	14MM08	Maneesha John	Improvement of customer satisfaction and productivity in a screw blanks manufacturing industry	Mr.M.Parthiban	Steer Engineering Pvt. Ltd., Bangalore
9	14MM09	Mano Princely. R	An integrated approach to improve machining quality in aircraft components using design for six sigma	Mr.N.Ganesh kumar	-
10	14MM10	Nikhil.T	Lead time reduction and line balancing of cutting torch assembly by using Lean techniques	Mr.V. Vijaya kumar	Messer Cutting Systems, Coimbatore
11	14MM11	Sundhar.S	Elimination of non value added activity in a windmill gearbox assembly	Mr. R.Prakash	ZF Wind Power Coimbatore
12	14MM31	Arun KS	Developing a software for application of overall equipment effectiveness analysis in a valve manufacturing organization	Dr.D Rajenthira kumar	Velan Valves India Pvt. Ltd.,
13	14MM32	Santhoshgi.D	Manufacturing layout optimization of air cleaner assembly	Mr.V.Vijay anand	Sundaram Auto Components Ltd., Hosur
14	14MM33	Senthil nathan.B	Productivity improvement in seat manufacturing industry using Lean techniques	Mr. R.Prakash	-

4.5.4.5. M.E - Energy Engineering

S.No.	Roll No.	Name	Title of the project	Guide Name	Industry/ Institute associated
1	14MN01	Kethan Riji Kollanoor	Improving the efficiency of a solar air heater by using Nanoparticle coating	Dr S Balachandran	-

S.No.	Roll No.	Name	Title of the project	Guide Name	Industry/ Institute associated
2	14MN02	Krishna Moorthy R	Municipal solid waste treatment by plasma technologies	Dr S P Vendan	-
3	14MN03	Lokesh R	Analysis of water flow rate in evaporative cool chamber	Dr T Prabu	-
4	14MN04	Madhan kumar N	Performance analysis of hybrid solar photovoltaic thermal collector	Dr K Punitharani	-
5	14MN05	Manickam L	Design and development of a novel integrated solar concentrator	Dr R Velavan	-
6	14MN06	Ranjith S	Experimental investigation on serpentine and parallel flow channel in PEM fuel cell for effective water removal	Dr A P Senthil Kumar	-
7	14MN08	Sathiesh Kumar N	Synthesis of jatropa oil using Nano catalyst for biodiesel production	Dr R Velavan	-
8	14MN09	Sirigina Geetha Sravanthi	Performance enhancement of flat plate collector by utilizing UV and IR along with visible radiation	Dr S Balachandran	-
9	14MN10	Sri Raguath V	Development of a short term forecast model for predicting the module temperature and output power of solar PV system	Dr.S Babu	-
10	14MN31	Gokul kannan N	Flow modeling and design optimization of steam turbine exhaust hood	Dr T Prabu	-
11	14MN32	Muthu prasanth	Improving the yield of biodiesel from karanja oil transesterification using Nano catalyst	Dr S Balachandran	-
12	14MN33	Nidhin S	Photocatalytic dye degradation using solar concentrator	Dr R Velavan	-
13	14MN34	Ravi verman SA	Performance evaluation of PCM based waste heat recovery system	Dr S Babu	-

4.6. Competitive Exam

S.No.	Exam	No. of Students appeared	Students qualified	
			Roll No.	Name
1	CAT	6	12M253	R K Shrinath
			12M263	Vivek Balakrishnan

S.No.	Exam	No. of Students appeared	Students qualified	
			Roll No.	Name
			12M235	R Pavithran
			12M249	U Sai Tharun
			12M237	C S K Pranav
			11M607	K Balachandar
			12M101	S Adhithyan
2	GATE	18	12M139	P Mohnish
			12M108	S Aravind
			12M131	M.Karthikeyan
			12M112	S Ashwin Kumar
			12M134	K Kishore
			12M142	K Prasad
			12M161	P Sundhar
			13M407	T Mohanraj
			12M234	Parithi K
			12M219	P Jeff Chrispine
			12M247	Raj Kumar
			12M214	S Dharmaraj
			12M209	S Balaji
			11M631	Mohamed Assalam N
			11M645	L Sakthiel
			11M607	K Balachandar
3	GRE	8	12M122	Gopi Krishnan R
			12M103	A Aiswarya
			12M208	S Balaji
			11M654	S Pavan
			12M102	Aditya Venkat Ramdass
			12M128	R Harshavardhan
			12M230	Mohit Singhala
			12M104	A Akilan
4	ILETS	5	12M255	R Sree Ram Narayanan
			12M213	T Derrick Nassan
			11M606	R Balashanmugam
			11M651	P Sidhu Ramaswamy
			11M642	P Prem Kumar
5	MAT	3	12M132	M Kaushik
			12M238	T Praneswaran
			12M244	M Rahul
6	SNAP	1	12M241	K P Prawin
7	TOEFL	4	12M104	A Akilan
			12M230	Mohit Singhala
			12M208	S Balaji
			12M122	Gopi Krishnan R

4.7. Placement

S.No	Name of Company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	ABB India Limited, Bangalore	1	12M231	Naveen M	4.25
2	Accenture, Bangalore	23	12M110	Ashik Hyder M	3.40
			12M129	Jeyesh P S	
			12M147	Rakesh Kanna S A	
			12M161	Sundhar P	
			12M204	AravindaKumar V M	
			12M207	Aravindh	
			12M216	Ganesh Ramu R N	
			12M225	KavinKumar K	
			12M232	Naveen raja R	
			12M238	Praneshwaran T	
			12M244	Rahul M	
			12M248	Ranjith Kumar J	
			12M262	Vignesh C B	
			11 M601	Anantha Kirthan K K	
			11M608	Balamurugan@Prasanth S	
			11M611	DelhiGanesh S	
			11M626	Kavinkumar S	
11M633	Muthu SP				
11M639	Prabakar N				
11M653	Sudar G M				
11M654	Sureddi Pavan				
12M908	Nisanth A				
12M911	Karthic V				
3	Adani Power Ltd., Ahmedabad	2	12M219	Jeff Chrispine P	4.10
			12M224	Kavinesh Shankar T S	
4	Altair Engineering India Pvt Ltd., Chennai	1	14MD07	Karthick G	4.50
5	Ashok Leyland Ltd., Chennai	7	12MI12	Ashwin Kumar S	3.35
			12M138	Mohd Imtiaz S	
			12M153	Sathesh Kumar R	
			12M158	Sivaram M	
			12M206	Aravind Kumar M R	
			12M209	Balaji S	
			11M641	Praveenkumar S	
6	Asian Paints Ltd., Mumbai	3	12MI14	Bhuvanesh Kumar V	5.20
			12M263	Vivek Balakrishnan	
			11M605	Azaruddin A	
7	AVTEC Limited, Chennai	2	12M145	Premnath A	5.10

S.No	Name of Company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
			11M655	Vaidyanathan PR	
8	Caterpillar India Pvt. Ltd., Bangalore	1	12M101	Adhithyan S	7.89
9	Cognizant, Chennai	18	12MI18	Chibi R S	3.35
			12M146	Raghuveer T R	
			12M218	Harish R	
			12M247	Rajkumar M	
			11M622	Karpaga Priyan K	
			12M901	Hari Krishnan	
			12M902	Pradeep Kumar C	
			14MI05	Karthikeyan S	
			14MI06	Mohan A	
			14MI32	Vivek K	
			14MN03	Lokesh.R	
			14MN09	Geetha Sravanthi	
			14MD36	Praveen V S	
			14MF06	Poornima C	
14MF07	Pradeep P				
14MF09	Ram Kumar R				
14MF34	Matts Aby Jo				
14MM01	Abilaash A				
10	Ford India Pvt. Ltd., Chennai	2	12M133	Kesavan S	5.50
			11M660	Vineeth C	
11	GE Energy, Bangalore	1	11M609	Chidambaram EL	5.00
12	General Motors Technical Centre, Bangalore	1	12M226	Kishan Kumar	5.10
13	Gilbarco Veeder Root India Pvt. Ltd., Mumbai	1	12M914	Vijayakumar S	3.75
14	Hyundai Motor India Ltd., Chennai	7	12M149	Santhosh G	6.00
			12M258	Surendar J	
			14MN05	Manickam.L	
			14MN32	Muthuprasanth.M	
			14MD35	Parthasarathy N B	
			14MD01	Abdul Rasheed Ahmed N	
			14MF04	Goipnath P	
15	IBM India Pvt. Ltd., Bangalore	6	14MI03	Balaji K	3.35
			14MI09	Shanmuga Sarathy R	
			14MI11	Sugit Samraj C	
			14MM05	Gomathi Prabha M	
			14MM06	Ilakkiya R	
			14MM09	Mano Princely R	
16	Infosys Technologies Ltd., Bangalore	9	12M106	Alex Pandiyan P	3.25
			12MI17	Chandru B	

S.No	Name of Company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
			12M127	Hari Prakash N	
			12M165	Vignesh Kumar E	
			12M236	Prakash O	
			11M640	Prasath P	
			11M659	Vigneshwaran K	
			14MN01	Kethan Riji Kollonor	
			14MN06	Ranjith.S	
17	ITC Infotech Limited, Bangalore	2	12M160	Sri Balaji A	3.30
			12M239	Pravin G	
18	IVTL Infoview Technologies Pvt.Ltd., Chennai	1	11 M647	Santhanakrishnan R	6.50
19	Jay Jay Mills (India) Private Limited, Tirupur	4	11M636	Noordeen Ahamed A	1.95
			14MF01	Aravind Babu R	2.75
			14MF02	Ashok Kumar S	
			14MF10	Sahul Hameed H	
20	L& T Technology Services, Bangalore	2	11M623	Karthi M	3.60
			11M656	Vallaban G	
21	Larsen & Toubro Ltd., (ECC Division) Chennai	1	13M440	Suresh S	5.11
22	Larsen & Toubro Ltd., Mumbai	4	12M115	Boojith M	4.80
			12M154	Savio Sharand Royan A	
			12M261	Veerappan S	
			11M630	Mathivanan P	
23	Latent View Analytics, Chennai	1	11M607	Balachandar K	4.50
24	Luk India Pvt. Ltd., Hosur	2	12M203	Ajay Sekar C	4.25
			12M228	Meenakshi Sundaram R	
25	Mu Sigma Business Solutions, Bangalore	4	12M124	Gowtham S	4.50
			12M136	Lalith Ashwin S	
			12M163	Varun R	
			12M260	Vasantha Kumar V	
26	Pricol Technologies Ltd., Coimbatore	4	13M435	Krishna Kumar B	21.60
			12M130	Kamalraj UK	
			11 M618	Jagan V	
			11M631	Mohamed Assalam N	
27	Rane Group, Chennai	2	12M131	Karthikeyan M	3.60
			12M254	Sivasankar A	
28	Robert Bosch, Coimbatore	9	12M113	Asween Raaj B	4.00
			12M150	Santhosh Mani E	
			12M152	Sasithar S	
			12M201	Abhay Kumar M B	

S.No	Name of Company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
			12M913	Vinith Varshan R	
			11M615	Gokul P	
			11M632	Mohan Kumar K	
			11M603	Ashwin Deepak K J	
			11M628	Lakshmanan T	
29	Royal Enfield, Chennai	1	11M621	Kaniskar B	3.60
30	Savio India Ltd, Pollachi	2	12M137	Marimuthu C	1.66
			12M211	Chandrasekaran R	
31	SHV LPG India Private Limited, Chennai	1	11M635	Naveen Raj E	4.63
32	Sundaram Clayton Ltd., Chennai	3	12M157	Siddeshwaran N	4.50
			12M212	Deepakkumar K	
			14MD06	Bharathvajan.K	
33	Sundram Fasteners Limited, Chennai	1	12M215	Ezhilamuthan R	3.25
34	Tata Consultancy Services Limited., Chennai	13	12M123	Gowtham M	3.30
			12M141	Naveen K	
			12M166	Yokesh Kumar N S	
			12M234	Parithi K	
			12M256	Sri Sharan M	
			12M906	Karthikeyan M	
			14MN34	Ravi Verman.SA	
			14MF11	Siddharthan G M	
			14MM04	Brajesh Kumar Kanchan	
			14MM08	Maneesha John	
			12M126	Hari Prakash C	
			11M619	Josmith Ephraim J	
			14MD11	Sonuj Ravindran	
35	Tata Motors Limited, Pune	5	12M223	Karthik M	5.75
			12M235	Pavithran R	
			11 M613	Dewagar J	
			11M634	Nandakumar N	
			11M645	Sakthivel L	
36	Triad Software Pvt. Ltd., Chennai	1	14MD09	Muvvala Nanda Kishore	4.00
37	TVS Motor Company Ltd., Hosur	2	12M134	Kishore K	4.50
			12M142	Prasad K	
38	Vadanta Limited, Thoothukudi	1	12M214	Dharmaraj S	4.50
39	Voith Paper Technology (India) Private Limited, Kolkata	1	12M151	Sasikumar S	3.60
40	Voltas Limited, Mumbai	1	13M408	Pens Bavakar P	3.25

S.No	Name of Company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
41	Wells Fargo, Bangalore	2	12M237	Pranav C S K	5.50
			12M249	Saitharun U	

4.8 Industrial training and project

4.8.1 Industrial visit

S.No.	Name of company	No. of students & course	Date	Area of Training
1	M/s. ITC Limited Mettupalayam	60, UG – 3 rd sem G2	26.06.2015	Manufacturing of Paper Boards & Speciality Papers.
2	M/s. Craftsman Automation Coimbatore	60, UG – 3 rd sem G1	01.07.2015	Manufacturing
3	M/s. Deccan Industries Pvt. Ltd.,	60, UG – 3 rd sem G2	03.07.2015	Manufacturing
4	M/s. PSG Foundry Division, Neelambur	11, PG – 1 st Sem Lean Manufacturing	13.10..2015	Casting Process
5	M/s. Lakshmi Machine Works Ltd., Coimbatore	15, PG – 1 st Sem Industrial Engineering (PT)	27.02.2016 & 30.04.2016	Machine tools
6	M/s. PSG Foundry Division Coimbatore	123, UG - 1 st Sem G1. G2	05.05.2016	Casting process
7	M/s. TAN TEA Museum & Company, Ootacamund	60, UG - 1 st Sem SW	08.03.2016	Tea Processing

4.8.2 Short term training

S.No.	Name of company	No. of students & course	Period	Area of training
1	Hyndai Motor India Pvt. Ltd., Chennai	3, UG - 6th Sem	06.06.2016 - 10.06.2016	Production and Assembly
2	Oriental Plants Equipment Limited, Coimbatore	1, UG - 6th Sem	23.05.2016 - 08.06.2016	Manufacturing
3	Bharani Hydraulics Pvt. Ltd. Coimbatore.	5, UG - 6th Sem	11.05.2016- 14..05.2016	Hydraulics
4	Ashok Leyland Ltd., Hosur	5, UG - 6th Sem	23.05.2016 - 27.05.2016	Automobile
5	Steel Authority of India Ltd, Salem	4, UG - 6th Sem	20.05.2016 - 30.05.2016	Manufacturing
6	Mitsubishi Heavy Industries India Precision Tools, Chennai	1, UG -6th Sem	20.05.2016 - 30.05.2016	Manufacturing
7	Carborundum Universal Ltd, Hosur	1, UG - 6th Sem	17.05.2016 - 24.05.2016	Industrial Ceramics
8	ELGI Ultra Industries Ltd,Coimbatore.	2, UG - 6th Sem	09.05.2016 - 25.05.2016	Production of tapes and drip irrigation

S.No.	Name of company	No. of students & course	Period	Area of training
9	ASMAA JK Pressing Ltd.,Madurai	4, UG - 6th Sem	09.05.2016 - 14.05.2016	Automobile
10	Hyundai Motor India Ltd,Chennai	4, UG - 6th Sem	06.06.2016 - 10.06.2016	Automobile
11	Daimler India Commercial Vehicles Pvt. Ltd., Chennai	4, UG - 6th Sem	12.05.2016 - 10.06.2016	Automobile
12	Ford India Pvt Ltd., Chengalpattur	1, UG - 6th Sem	11.05.2016 - 18.05.2016	Automobile
13	Tuticorin Thermal Power Station, Tuticorin	4, UG - 6th Sem	23.05.2016 - 28.05.2016	Thermal
14	Ashok Leyland Ltd., Chennai.	2, UG - 6th Sem	14.05.2016 - 21.05.2016	Automobile
15	Neyveli Lignite Corporation Ltd., Neyveli	3, UG - 6th Sem	14.04.2016 - 21.04.2016	Thermal
16	SAIL, Salem	1, UG - 5th Sem	17.11.2015 - 29.11.2015	Steel works
17	Volkswagen service centre, Coimbatore	1, UG - 5th Sem	13.11.2015 - 29.11.2015	Automobile
18	Ashok Leyland Ltd., Hosur	1, UG - 5th Sem	14.10.2015 - 20.10.2105	Automobile
19	SAIL, Salem	1, UG - 5th Sem	17.11.2105 - 29.11.2015	Steel works
20	ITC Ltd, Coimbatore	2, UG - 5th Sem	23-11-2015 - 27-11-2015	printing and packaging
21	Ashok Leyland Ltd., Chennai	6, UG - 5th Sem	21.12.2015 - 23.12.2015	Automobile
22	Ashok Leyland Ltd., Chennai	1, UG - 5th Sem	19.12.2015 - 26.12.2015	Automobile
23	Kayarr Engineering Services, Coimbatore	2, UG - 5th Sem	27.11.2015 - 28.11.2015	Manufacturing
24	Ashok Leyland Ltd., Hosur	6, UG - 5th Sem	17.11.2015 - 21.11.2015	Automobile
25	Titan Company Ltd., Hosur	2, UG - 5th Sem	23.11.2015 - 8.11.2015	Manufacturing
26	Roots Industries, Coimbatore	1, UG - 5th Sem	23.11.2015 - 27.11.2015	Manufacturing
27	Pricol Pvt. Ltd., Coimbatore	1, UG - 5th Sem	23.11.2015 - 28.11.2015	Design and manufacturing
28	BMW Service Center, Coimbatore	1, UG - 5th Sem	16.11.2015 - 27.11.2015	Vehicle servicing
29	Precision Engineering Division, Hosur.	1, UG - 5th Sem	23.11.2015 - 27.11.2015	Design

S.No.	Name of company	No. of students & course	Period	Area of training
30	Peekay Castings, Coimbatore	1, UG - 5th Sem	18.11.2015 - 20.11.2015	Casting
31	Roots Pump, Coimbatore	5, UG - 5th Sem	18.11.2015 - 23.11.2015	Punching, assembly, testing, powder coating
32	Ford, Chennai	1, UG - 5th Sem	15.10.2015 - 19.10.2015	Automobile
33	Caterpillar India Pvt. Ltd., Hosur	1, UG - 5th Sem	14.10.2015 - 20.10.2015	Manufacturing
34	BMW Service Center, Coimbatore	1, UG - 5th Sem	14.10.2015 - 18.10.2015	Vehicle servicing
35	Sri Venkateswara TVS, Rasipuram.	1, UG - 5th Sem	14.10.2015 - 21.10.2015	Automobile
36	Bharath Heavy Electricals Limited, Trichy	11, UG - 5th Sem	19.11.2015 - 27.11.2015	Manufacturing
37	Krishnaveni Carbon Products Pvt Ltd, Coimbatore	3, UG - 5th Sem	11.05.2016 - 25.05.2016	Manufacturing
38	General electric Pvt Ltd., Coimbatore	1, UG - 5th Sem	11.05.2016 - 30.06.2016	Manufacturing
39	Royal Enfield, Chennai	2, UG - 6th Sem	02-06-2016 - 10-06-2016	Vehicle manufacture and assembly
40	Best forgings Ltd., Chennai	1, UG - 5th Sem	25-11-2015 - 29-11-2015	Metal forging
41	Tata steels Ltd., Chennai	2, UG - 6th Sem	17-05-2016 - 14-06-2016	Steel works
42	SDSTPS, Nellore	1, UG - 5th Sem	01-06-2015 - 10-06-2015	Manufacturing
43	BMW India Pvt. Ltd., Chennai	1, UG - 6th Sem	21.05.2016 - 04.06.2016	Shop Floor
44	Ashok Leyland, Chennai	2, UG - 6th Sem	24.05.2016 - 28.05.2016	Automobile
45	TNPL paper limited, Karur	2, UG - 5th Sem	23.09.2015 - 27.09.2015	Manufacturing of surface sized maplitho paper
46	Goodwin Motors, Chennai	1, UG - 5th Sem	06.06.2015 - 09.06.2015	Production
49	ZF wind Power Ltd., Coimbatore	8, UG - 4th Sem	02.06.2016 - 10.06.2016	Manufacturing of windmill gear box
50	TI Cycles Pvt. Ltd., Chennai	3, UG - 4th Sem	04.06.2016 - 10.06.2016	Cam Chain Cell and Engine chain cell
51	TVS Motors, Hosur	1, UG - 4th Sem	02.06.2016 - 10.06.2016	Automobile
52	TOSHIBA Ltd., Chennai	2, UG - 4th Sem	06.06.2016 - 09.06.2016	Manufacturing

S.No.	Name of company	No. of students & course	Period	Area of training
53	SAIL, Salem	2, UG - 4th Sem	06.06.2016 - 10.06.2016	Production
54	Brakes India Pvt. Ltd., Chennai	1, UG - 4th Sem	02.06.2016 - 11.06.2016	Manufacturing
55	The ACETECH Machinery Components India Pvt. Ltd., Coimbatore	1, UG - 4th Sem	02.06.2016 - 10.06.2016	Manufacturing
56	Hyundai Motor India Pvt. Ltd., Chennai	3, UG - 4th Sem	06.06.2016 - 10.06.2016	Automobile
57	Oriental Plants Equipment Limited, Coimbatore	8, UG - 4th Sem	06.06.2016 - 11.06.2016	Manufacturing
58	Janatic India Private Limited, Coimbatore	2, UG - 4th Sem	06.06.2016 - 11.06.2016	Manufacturing of pneumatic products
59	Tractor and Farm Equipmen Ltd., Chennai	1, UG - 4th Sem	13.06.2016 - 15.06.2016	Tractor Assembly
60	ROOTS Industries Pvt Ltd Ganapathy, Coimbatore	2, UG - 4th Sem	02.06.2016 - 07.06.2016	Manufacturing
61	Combat vehicles Reseach and Development Establishment. Chennai	1, UG - 4th Sem	06.06.2016- 10.06.2016	R&D
62	TVS Sundaram Fasteners Ltd, Madurai	1, UG - 4th Sem	01.06.2016- 03.06.2016	Design and manufacturing
63	Roots Industries- horn division, Coimbatore	1, UG - 3rd Sem	22.12.2015 - 26.12.2015	Manufacturing
64	Caterpillar Design Centre, Kandanchavadi, Chennai.	1, UG - 4th Sem	06.06.2016 - 18.06.2016	Design
65	TI Cycles Pvt. Ltd., Chennai	2, UG - 4th Sem	21.12.2015 - 24.12.2015	Agri chain cell
66	TVS Motos,Ltd, Hosur	5, UG - 4th Sem	09.06.2016 - 11.06.2016	Manufacturing and assembly of two wheelers
67	IGARISHI Motors, Chennai	1, UG - 4th Sem	03.06.2016 - 09.06.2016	Manufacturing and assembly of motor parts
68	Caterpillar, Thiruvallur	2, UG - 4th Sem	06.06.2016 - 30.06.2016	Manufacturing and planning

4.8.3 Project work/Internship

S.No.	Name of company	No. of students & course	Period	Area of training
1	Ashok Leyland, Hosur	2, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Process establishment in the special vehicle assembly line
2	Ashok Leyland, Hosur	2, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Mistake proofing in H series cylinder head line shop - 5

S.No.	Name of company	No. of students & course	Period	Area of training
3	Bharathi Cements, Kadapa (AP)	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Modification of hoses
4	Florida Univ, Usa	2, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Study of characteristics of valves using CFD and other testing procedures
5	Ford, Chennai	8, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Test and quality
6	G S Alloys Vijayawada	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Process in foundry technology
7	GE,Bangalore	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Safety risk access
8	GE,Chennai	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Single minute exchange dies proposal for reduction in setting time and improvement of OEE Of HMC - 4
9	ICF,Chennai	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Optimizing cycle time of coiling operation
10	Kaarthik Enterprises, Coimbatore	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Design and manufacturing of modular fixture
11	Knitvel Needles, Hosur	4, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Design and fabrication of base plate drill jig
12	Lapp India, Bangalore	3, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Cable Manufacturing
13	Lapp Kabel,Germany	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Cable Manufacturing
14	Larsen & Toubro PMC,Coimbatore	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Creation of models using family table
15	NLC,Neyveli	4, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Performance study in thermal cycle equipment
16	CIM Systems, Coimbatore	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Manufacturing of CNC machine part of shaft pin
17	Renault Nissan,Chennai	2, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Manufacturing Process
18	Roots,Coimbatore	5, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Design and fabrication of attribute gauges
19	SAIL,Salem	4, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Modification of AC electric drive with hydraulic arrangements for RHF/C discharging door
20	Schwing Stetter, Chennai	4, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Design of subframe of 7cu.m truck mixer and its analysis by using FEMAP (Finite Element Mapping)

S.No.	Name of company	No. of students & course	Period	Area of training
21	Stanadyne Amalgamations , Chennai	4, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Design and develop a durability test facility to test both monoblock and rotary fuel injection pump in existing test facility
22	Super Auto Forge, Chennai	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Productivity improvement in warm forging
23	Titan ,Hosur	2, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Automation
24	Toshiba,Chennai	3, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Productivity improvement by enhancing the fixture design for dovetail machining
25	TVS Motor Company, Hosur	3, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Establishing relationship between lubrication oil consumption and reliability of the equipment
26	TVS MotorCompany, Mysore	3, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Design of common fixture for pre - line to main line in the apache engine assembly
27	University of Leeds, Uk	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Cardiovascular tribocorrosion
28	Volvo India Limited, Bangalore	1, UG-7 th sem(SW)	06.05.2015 - 24.07.2015	Work process optimization of steering assembly, fitment and WA Process to eliminate the repetitive correction of steering wheel straightness

4.9. PSG Tech students pursuing higher studies

S.No.	Name of student	Roll No.	Degree pursuing	University
1	Aditya Venkat Ramdass	12M102	MS -Industrial engineering	Pennsylvania State University, USA
2	R Harshavardhan	12M128	MS -Industrial engineering	Rutgers The state University of New Jersey, USA
3	A Aiswarya	12M103	MS Mechanical	University of Illinois Urbana Champaign, USA
4	S Shankar Krishna	12M156	MBA	California state university, Long Beach, USA
5	Akshay Muralidharan	12M105	MS Marketing and export managemnet	Milwaukee School of Engineering, USA
6	M Kaushik	12M132	MBA	PSG Institute of Management , India
7	A Akilan	12M104	industrial engineering	Purdue university, West Lafayette, USA
8	R Sree Ram Narayanan	12M255	MBA	Cardiff Business School, London
9	T Derrick Nassan	12M213	MSc	RWTH AACHEN University, Germany

S.No.	Name of student	Roll No.	Degree pursuing	University
10	S Balaji	12M208	MS industrial engineering	Virginia Polytechnic Institute and State University, USA
11	Mohit Singhala	12M230	MSc in Bioengineering innovation and Design	Johns Hopkins University, USA
12	S Pawan	11M654	Industrial Engineering	University of Florida , Gainesville, USA
13	K Balachandar	11M607	MBA	IIM, Ahmedabad, India

4.10. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1981	-	17	1990	73	30	1999	105	59	2008	121	54
1982	10	35	1991	75	61	2000	116	36	2009	132	52
1983	64	38	1992	71	42	2001	113	59	2010	133	52
1984	107	21	1993	77	55	2002	115	49	2011	198	57
1985	67	30	1994	77	50	2003	106	59	2012	187	73
1986	41	39	1995	86	52	2004	106	70	2013	187	62
1987	48	34	1996	97	43	2005	98	53	2014	200	78
1988	99	37	1997	87	78	2006	112	64	2015	207	76
1989	85	29	1998	94	53	2007	114	46	2016	196	88

5. SUMMARY

S. No.	Activity	No.	
1.	International conferences conducted	1	
2.	National conferences conducted	3	
3.	Workshops conducted	12	
4.	Short-term training programs conducted	3	
5.	Sponsored research projects ongoing	19	
6.	Sponsored research projects completed till date		
7.	Scholars pursuing doctoral research	79	
8.	Doctorates produced till date		
9.	Papers published in international journals	38	
10.	Papers published in national journals	8	
11.	Awards won by faculty	5	
12.	Awards won by students	51	
13.	No. of students passed out during 2015-2016	UG	196
		PG	88
18.	No. of students passed out till date	UG	3804
		PG	1831

DEPARTMENT OF METALLURGICAL ENGINEERING

ABOUT THE DEPARTMENT

The Department of Metallurgical Engineering has been in the forefront of Metallurgical Engineering education for more than four decades. The department, besides offering quality education to the students, is actively engaged in research and development activities as well as testing and consultancy services to local industries. The department offers both undergraduate and postgraduate programs. The undergraduate program in Metallurgical Engineering was started in the year 1968 and the postgraduate program in industrial metallurgy was started in the year 1976.

The department is a recognized center for doctoral program under Anna University, Chennai. The department is offering part-time Ph.D program for both internal and external candidates. Doctoral work is being carried out in the areas of surface engineering, foundry metallurgy, diffusion bonding, welding metallurgy, powder metallurgy, metal matrix composites and high nitrogen stainless steels. Thirty candidates have completed their doctoral program successfully and twenty seven candidates are pursuing their research.

The department has qualified faculty members with good theoretical background and valuable industrial experience in diverse fields like welding, foundry, powder metallurgy, heat treatment, surface engineering, metal forming and advanced materials. The major facilities available in the department include Scanning Electron Microscope(SEM) with EDS, optical emission spectrometer, Metallography with an image analysis system, metallurgical microscopes, in-situ Metallography kit, X-ray diffraction unit, micro-hardness testers, Brinell hardness tester, digital Rockwell hardness tester, Microtek tensometer (Hounsfield type), UTM, impact tester, hot isostatic pressing, hot press, hydraulic press, vacuum diffusion bonding set-up, rolling mill, cupping tester, wear testers (pin-on-disc, dry sand-rubber wheel test rig, and slurry abrasion test rig), heat treatment furnaces, (including a programmable high temperature furnace and two vacuum furnaces), high frequency Induction heating unit, plasma spray equipment, salt spray chamber, stress corrosion testing machine, Potentiostat, ball mill and attritors for mechanical alloying of metal powders, Pin-on disc and other wear testing facilities, foundry sand testing equipment, NDT equipment like eddy current tester, industrial endoscope, ultrasonic 'A' scan flaw detector, ultrasonic C scan system, magnetic particle testing facility and dye penetrant testing facility.

In addition to these facilities, the department also has access to foundry and heat treatment facilities at the PSG Neelambur foundry division as well as the central mechanical testing facilities in the Civil engineering department. Further advanced software for foundry industry- PROCAST and software for metal forming operations- ANTAREUS have been installed in the CAD/CAM center of the college. The department also has a computer lab with Thermocalc software for thermodynamic calculations and some atomistic simulation softwares. The students of metallurgical engineering not only use the departmental facilities but also use the central facilities of our college. The faculty members of the department participate regularly in international and national conferences and the students are also encouraged to participate in various conferences by presenting technical papers.

The laboratory facilities in the department include metallography, material characterization facilities, tensile testing, corrosion testing, wear testing facilities, heat treatment, metal forming, non-destructive testing, powder metallurgy, sand testing, welding and computational materials laboratory. The department has the Metals Testing and Research Center, involved in education of industrial personnel, industrial testing and consultancy.

A brief on research activities

The department is actively engaged in collaborative research and development with industries in Coimbatore and Chennai. The department also interacts with R&D institutions like Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, Defence Metallurgical Research Laboratory

(DMRL), Hyderabad and Gas Turbine Research Establishment (GTRE), Bangalore, Salem Steel Plant, Salem, Research and Development Centre for Iron and Steel (RDCIS), Ranchi, in areas like mechanical alloying, surface engineering, diffusion bonding and corrosion. The department has also signed a MoU with IISU-ISRO, Trivandrum in a research work related with diffusion bonding of magnetic materials. The department has also signed an MoU with BHEL, Tiruchirappalli and actively involved in conducting the courses for Welding Research Institute (WRI) students.

Major areas of research

- Biomaterials
- Boriding and Multicomponent boriding
- Development of high nitrogen stainless steels
- Development of porous castings
- Diffusion bonding of dissimilar and magnetic materials
- Equal channel angular pressing /Severe plastic deformation
- High strength steels
- Mechanical alloying
- Metal matrix composites
- Nanomaterials synthesis and characterization
- Surface engineering
- Development of high temperature sustainable materials
- Weldability studies on advanced materials like super austenitic stainless steels, nickel base superalloys, etc.,

A brief on consultancy and testing activities

The department has been actively engaged in industrial consultancy and testing services for the industries in and around Coimbatore. These services include failure analysis and damage evaluation, project evaluation and process scheduling, micro structural evaluation and testing for mechanical properties. Some of the areas where testing and consultancy activities are regularly carried out are listed below:

- Corrosion testing (IGC testing as per ASTM and EN standards)
- Flow line study in forged components
- Macro examination
- Mechanical testing – tensile, hardness, micro hardness, impact testing
- Metallurgical failure analysis of critical components
- Micro examination
- Non-destructive testing
- Quantitative metallography
- Scanning Electron Microscopy (SEM)and EDS analysis
- Wear testing –pin on disc, Rubber wheel abrasion testing and slurry abrasion testing
- X-ray diffraction analysis

Consultancy on

- Casting related problems
- Composite materials
- Failure during service
- Heat treatment problems
- Material selection and alternate materials
- Metal forming related problems
- Powder metallurgy
- Welding related issue
- Corrosion problems

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.P. Gopalakrishnan, Ph.D. Professor and Head	pgk@mtl.psgtech.ac.in	1986	Heat treatment, Surface engineering and Physical metallurgy
2	Dr.V. Ramaswamy, Ph.D. Professor	vrs@mtl.psgtech.ac.in	2007	Iron and steel making, Metallurgical failure analysis
3	Dr.S.S. Mohamed Nazirudeen, Ph.D., Professor	ssm@mtl.psgtech.ac.in	1988	Foundry engineering, Heat treatment and Failure analysis
4	Dr.V. Balusamy, Ph.D. Associate Professor	vbs@mtl.psgtech.ac.in	1991	Welding metallurgy and Non- destructive testing
5	Dr.R. Subramanian, Ph.D. Associate Professor	rsm@mtl.psgtech.ac.in	1987	Physical metallurgy, Composite materials and Powder metallurgy
6	Dr.J. Krishnamoorthi, Ph.D. Assistant Professor (S. Gr)	jkm@mtl.psgtech.ac.in	2000	Metal joining, characterization, Iron and steel technology
7	Dr.K. Thillairajan, Ph.D. Assistant Professor	ktr@@mtl.psgtech.ac.in	2003	Surface engineering, Thermodynamics and Physical metallurgy
8	Dr.J. Anburaj, Ph.D. Assistant Professor	jar@mtl.psgtech.ac.in	2005	Foundry metallurgy, Tool steels and special steels
9	Dr.R. Sivasankari, M.E Assistant Professor	rss@mtl.psgtech.ac.in	2005	Metal forming, Physical metallurgy and Mechanical behavior of materials
10	Dr.M. Kavitha, Ph.D. Assistant Professor(S.Gr)	mka@mtl.psgtech.ac.in	2010	Nanomaterials, Powder Metallurgy and Heat treatment
11	Dr.V. Udhaya Banu, Ph.D. Assistant Professor	vub@mtl.psgtech.ac.in	2010	Nanocomposites, Mechanical Alloying and Materials Characterisation
12	Mr.T. Satish Kumar, M.E Assistant Professor	tsk@mtl.psgtech.ac.in	2011	Metallurgical Failure Analysis, Composite Materials and Welding Technology
13	Mr.A. Gowrishankar, M. Tech Assistant Professor	ags@mtl.psgtech.ac.in	2012	Physical metallurgy, Mineral Beneficiation and Extractive Metallurgy
14	Mr.G. Venkatesh, M. Tech Assistant Professor	gvn@mtl.psgtech.ac.in	2013	Advanced Ceramics, Composites, Physical metallurgy,Phase Transformations

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
15.	Mr. R. Dhanasekar, M.E Assistant Professor	rds@mtl.psgtech.ac.in	2015	Finite Element Analysis, Welding Metallurgy and Casting Metallurgy
16.	Mr.S. Anandan, M. Tech Assistant Professor	ans@mtl.psgtech.ac.in	2015	Phase Transformation, Crystal Defects and Computational Material Science

2. FACULTY DEVELOPMENT

2.1. Higher studies

S.No.	Name of faculty	Programme	Year of joining & status
1.	Ms.R. Sivasankari	Ph.D.	2008, Completed, Aug 2015
2.	Mr.T. Satish Kumar	Ph.D.	2012, Ongoing
3.	Mr.G. Venkatesh	Ph.D.	2016, Ongoing
4.	Mr.R. Dhanasekar	Ph.D.	2016, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Mr.T. Satish Kumar Mr.A. Gowrishankar	National symposium on "Advances in Material Processing" for PG students and research scholars	-	21.05.2016
2.	Dr.V. Ramasamy Dr.V.Balusamy Dr.J.Krishnamoorthi	"National Metallurgist day " NMD 2015	IIM & SAIL	14.09.2015 17.09.2015

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr.J.Krishnamoorthi	" Foundation Skills in Integrated Product Development "	PSG CT	23.11.2015- 27.11.2015
2	Dr.J.Krishnamoorthi	" Learning Improvement Techniques"	IIT Madras, Chennai	10.03.2016- 12.03.2016

2.4. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr.P. Gopalakrishnan	Faculty advisor	Material Advantage Society, PSG CT
		Faculty advisor	ISTE- Students Chapter, Coimbatore
		Treasurer	The IIM, Coimbatore Chapter
		Board of studies member	Anna University, Trichy
2	Dr.V. Ramaswamy	Chairman	The Indian Institute of Metals, Coimbatore Chapter
		Advisor	Steel Authority of India
3	Dr.S.S. Mohamed Nazirudeen	Board of studies member	Anna University, Chennai

S.No.	Name of faculty	Activity / Role	Organization
4	Dr.R. Sivasankari	Co-ordinator	BHEL - PSG - PG Certificate course on Welding and Quality Engineering
5	Dr.J. Krishnamoorthi	Secretary	The Indian Institute of Metals, Coimbatore Chapter
6	Mr.T. Satishkumar	Faculty Advisor	Metallurgical Engineering Association

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Powder Metallurgy Lab	Microwave sintering furnace	4.7
2	Heat treatment Lab	Hot Air oven	0.5

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1	Modernization of powder metallurgy and advance materials lab	Dr.P. Gopala krishnan	AICTE-MODROBS	2013 In Progress	1 year	13.00
2	An attempt to improve the fatigue property of borided medium carbon low alloy low alloy steel	Dr.P. Gopala krishnan Dr.V. Udhayabanu	AICTE- RPS New Delhi	2013 In Progress	1 year	9.16
3	Synthesis and characterization of zircon sand/Al-Zn-Mg alloy composite	Dr.R. Subramanian Dr.V. Udhayabanu Mr.T.Satish Kumar	UGC-Minor	2014, In Progress	2	4.60

3.3. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1.	Mr. T.Sivakumar	Surface engineering	Dr.P.Gopalakrishnan Professor PSG CT, Coimbatore	Jan 2008, Completed
2.	Mr.M.S.Tamilarasan	Surface engineering		Jan 2012,In Progress
3.	Mr.P.M.Kavimani	Duplex stainless steels	Dr.S.S.Mohamed Nazirudeen, Professor PSG CT, Coimbatore	Jan 2002, In progress
4.	Mr.D.Noorullah	Austempered ductile iron		Jul 2008,In progress
5.	Mr. B.Anandavel	Casting Engineering		Jan 2011,In progress
6.	Mr. Syed Ibrahim	Casting Engineering		Jul 2012, In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
7.	Mr. Mahesh	Casting Engineering		Jul 2012, In progress
8.	Mr. Govindaraj	Quality control		Jul 2012, In progress
9.	Mr. B.Praveen	Equal channel angular pressing of Ti alloys	Dr.V.Balusamy, Associate Professor, PSG CT, Coimbatore	Jan 2008, In progress
10.	Ms. R.Sivasankari	MIAB welding		Jul 2008, Completed 2015
11.	Mr. V.Gopalakrishnan	Metal Joining		Jan 2011, In progress
12.	Mr. P.G.Dhanarajan	Welding of the Nickel base alloys		Jan 2013, In progress
13.	Mr.R.Thavamani	Welding of the Nickel base alloys		Jan 2013, In progress
14.	Mr.R.Dhanasekar	Welding simulation		July 2016, In progress
15.	Mr. T.Thirumalai	Composites		Dr.R.Subramanian Associate Professor PSG College of Technology Coimbatore
16.	Ms. Monika Mohan	Mechanical Alloying	Jul 2010, Completed 2016	
17.	Mr. T.Satishkumar	Metal matrix composites	Jul 2012, In progress	
18.	Mr. S.Vetrivel	Metal matrix composites	Jul 2012, In progress	
19.	Mr.N.Gopala Krishnan	Composites	Jul 2013, In progress	
20.	Ms. A.Suganya Priyadharsini	Metal matrix composites	July 2013, In progress	
21.	Mr. Velmurugan	Metal matrix composites	Jul 2014, In progress	
22.	Mr. Kamal Pasha	Metal matrix composites	Jul 2014, In progress	
23.	Mr.G.Venkatesh	High Temperature materials	Jan 2016, In Progress	

3.3.1. Doctoral research – Abstract

A Study on Magnetically Impelled Arc Butt (Miab) Welding of Carbon Steel Tubes and Low Alloy Steel Tubes

Supervisor : Dr.V.Balusamy

Candidate : Ms. R.Sivasankari

Magnetically Impelled Arc Butt (MIAB) welding is a unique pressure welding process utilized for joining of tubes and pipes. It involves rotation of arc around the tube circumference due to the interaction of arc current and magnetic field at the tube interface. The arc rotation during welding aids in uniform heating of the faying surfaces. MIAB welding involves four stages, viz, arc initiation, arc stabilization, arc rotation and upsetting. Benefits of MIAB welding include faster welding cycle, no welding distortion, no external shielding and possibility of welding of dissimilar metals. Carbon steel tubes and low alloy steel tubes chosen for the study are widely used in economizers and water wall tubes of boiler power plants. Suitability of MIAB welding for these materials will facilitate the possibility of using MIAB welding in production of boiler power plants. In phase I, carbon steel tubes pertaining to SA 210 Gr A with 0.27 wt % C was chosen for MIAB welding. Tubes

with outer diameter of 44 mm and thickness of 4.5 mm were used for welding. Five welding parameters, viz, arc initiation current, arc stabilization time, arc rotation current, arc rotation time and upset current were varied at two levels and DoE trials were designed using half factorial method in Minitab software. The welded tubes were characterized using microstructural analysis and mechanical testing. Microstructural analysis includes optical microscopy and SEM analysis. Mechanical testing includes hardness testing, tension testing, notched tension testing and bend testing. In phase II, low alloy steel tubes (T11) containing 0.17 C, 1.33 Cr and 0.55 Mo (wt %) were chosen for MIAB welding. Three welding parameters, viz, arc rotation current, arc rotation time and upset current were varied at two levels and DoE trials are designed using full factorial method. Like carbon steel welding, T11 weldments were also characterized using microstructural analysis and mechanical testing.

3.4. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR
1.	Dr.J.Krishnamoorthi	M/s. L.G.Balakrishnan & Bros Limited Coimbatore	Failure Analysis	5,000
2.	Dr.J.Anburaj	ELGI Equipment Limited Coimbatore	Failure Analysis	3,000
3.	Dr.J.Krishnamoorthi	L.G.Balakrishnan & Bros Limited Coimbatore	SEM Analysis	2,000
4.	Dr.J.Krishnamoorthi	L.G.Balakrishnan & Bros Limited Coimbatore	SEM EDS Analysis	7,000
5.	Dr.J.Anburaj	KPM. Plasto Rubber Co., Coimbatore	Failure Analysis of aluminium samples	10,000
6.	Dr.J.Krishnamoorthi	ELgi Equipments Limited Coimbatore	Failure Analysis	4000
7.	Dr.J.Krishnamoorthi	Pricol Limited, Coimbatore	SEM EDS Analysis	6,000
8.	Dr.P.Gopalakrishnan Dr.V.Balusamy	Lotus Clean Power Ventures P Ltd Coimbatore	Failure Analysis	25,000
9.	Dr.J.Anburaj	Servall Engineering Works Private Coimbatore	Failure Analysis	5,000
10.	Dr.M.Kavitha	Bull Machines Pvt Ltd, Coimbatore	Failure Analysis	3,000
11.	Dr.J.Krishnamoorthi	Sakthi Auto Component Limited Tirupur	SEM EDS Analysis	3,000
12.	Dr.J.Krishnamoorthi	Sakthi Auto Component Limited Tirupur	SEM Analysis	1,500
13.	Dr.J.Krishnamoorthi	L.G.Balakrishnan & Bros Limited Coimbatore	SEM EDS Analysis	3,500
14.	Dr.J.Krishnamoorthi	Sakthi Auto Component Limited Tirupur	SEM EDS Analysis	3,500
15.	Dr.J.Krishnamoorthi	Sakthi Auto Component Limited Tirupur	SEM Analysis	1,500
16.	Dr.J.Anburaj Dr.P.Gopalakrishnan	M.Dharmalingam Associate, Coimbatore	Failure Analysis	4,000
17.	Mr.A.Gowrishankar	L.G.Balakrishnan & Bros Limited Coimbatore	SEM Analysis	3,000

S.No.	Name of faculty	Industry	Title of work	Amount in INR
18.	Dr.J.Anburaj	Roots Industries India Limited Coimbatore	SEM Analysis	5,000
19.	Dr.J.Krishnamoorthi	Lakshmi Machine Works Limited Coimbatore	SEM Analysis	6,000
20.	Dr.J.Anburaj	Cheran Engg Products, Coimbatore	Failure Analysis	1,500
21.	Mr.A.Gowrishankar	Lakshmi Machine Works Limited Coimbatore	SEM Analysis	2,000
22.	Dr.M.Kavitha	Bull Agro Implements, Coimbatore	SEM Analysis	5,000
23.	Mr.G.Venkatesh	Lakshmi Life Sciences Limited Coimbatore	Failure Analysis	1,000
24.	Dr.J.Anburaj	M/s. Cheran Engg Products Coimbatore	Failure Analysis	5,000
25.	Mr.T.Satish Kumar	Pricol Limited, Coimbatore	SEM Analysis	3,000
26.	Dr.M.Kavitha	Larsen & Toubro Limited, Coimbatore	Failure Analysis	7,000
27.	Mr.T.Satish Kumar	Pricol Limited, Coimbatore	SEM Analysis	1,500
28.	Dr.M.Kavitha	Bull Machines Pvt Ltd, Coimbatore	Failure Analysis	6,000
29.	Dr.J.Krishnamoorthi	Larsen & Toubro Limited Coimbatore	Failure Analysis	3,500
30.	Dr.J.Anburaj	Bull Machines Pvt Ltd, Coimbatore	Stereomicroscope analysis	1,500
31.	Dr.M.Kavitha	Roots Cast Private Limited Ltd Coimbatore	Microstructural analysis	38,400
32.	Ms.R.Sivasankari	Luk India Pvt Ltd Hosur	Microstructural analysis	2,000
33.	Dr.J.Anburaj	Sundaram Fasteners Limited Chennai	Failure analysis	4,500
34.	Dr.J.Anburaj	ELGI Equipment Limited Coimbatore	Failure Analysis	2500
35.	Dr.R.Sivasankari	Steer Engineering Pvt Limited	Failure Analysis	6000
36.	Mr.G.Venkatesh	Lakshmi Life Sciences Limited Coimbatore	Failure Analysis	3,500
37.	Dr.J.Anburaj	Bull Machines Pvt Ltd, Coimbatore	Failure Analysis	1,500
38.	Dr.J.Anburaj	Rank Surveyors Pvt Ltd, Coimbatore	Failure Analysis	5000
39.	Dr.J.Anburaj	Roots Cast Private Limited Ltd Coimbatore	Failure Analysis	3,500
40.	Dr.J.Anburaj	Doiter Castings, Coimbatore	Failure Analysis	3,000
41.	Dr.J.Anburaj	V.R.Foundries, Coimbatore	Failure Analysis	3,000
42.	Dr.J.Anburaj	Amma Alloy (India) P Ltd, Coimbatore	Failure Analysis	2,500
43.	Dr.J.Anburaj	Amma Alloy (India) P Ltd. Coimbatore	Failure Analysis	2,500

3.5. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	240	-	-	1	1	-
2	GRD Library - Metallurgical Engineering	5421	1816	382	1	14	-

3.6. Board of studies

S.No.	Date	Agenda	Experts
1	10.10.2015	Discussion on scheme and curricula for B. E Metallurgical Engineering – 2016 regulation	<p>Dr.P.K.Palani Associate Professor Department of Mechanical Engineering Government College of Technology Coimbatore 641 013</p> <p>Dr.Ing. G.Buvanashakaran DGM - Welding Research Institute, Bharath Heavy Electrical Limited, Tiruchirappalli – 620 014</p> <p>Dr.Raman Sankaranarayanan Head of the Department Dept of Metallurgical & Materials Engineering, National Institute of Technology, Trichy – 620 015</p> <p>Prof. P.M. Kavimani Additional Director (Examinations) Directorate of Technical Education (DoTE) Sardar Patel Road, Guindy, Chennai</p> <p>Dr.M.Palaniappa Tech lead – Metallurgy , Honeywell Technology Solutions Lab Pvt Ltd, 151/1, Doraisanipalya, Bannerghatta Road Bangalore – 560 226</p>
2	26.03.2016	Preparation of 2015 regulation of ME (Industrial Metallurgy) and detailed syllabi	

3.7. Research publications

3.7.1. Papers published in international journals

1. Satish Kumar, T, Subramaniam, Ramanathan, Shalini, Sundarrajan 2015', Synthesis, microstructure and mechanical properties of ex-situ zircon particle (ZrSiO₄) reinforced metal matrix composites (MMCs): a review', Journal of Material Research and Technology, vol. 4, no 3, pp. 333-347.
2. Satish Kumar, T, Subramaniam, R, Shalini, S Angelo, PC 2015, 'Microstructure, mechanical properties and corrosion behavior of Al-Si-Mg alloy matrix/zircon and aluminium hybrid composite', Forschung Im Ingenieurwes, vol. 79, pp. 123-130.
3. Satish Kumar, T, Subramaniam, R, Shalini, S Angelo, PC 2016, 'age hardening behavior of Al-Si-Mg alloy matrix/zircon and aluminium hybrid composite', Journal of Scientific and Industrial Research, vol. 75, no 2, pp. 89-94.
4. Satish Kumar, T, Subramaniam, R, Shalini, S Angelo, PC 2016, 'Synthesis, microstructure and mechanical properties Al-Si-Mg alloy hybrid (Zircon + Alumina) composite, Indian Journal of Engineering & Material Sciences, vol. 23, no 1, pp.20-26.

- Vetrivel, KP, Subramaniam, R, Somasundara Vinoth, K, 2016, 'An analysis on process control of machining in electrical discharge machine by hybrid composites using DoE', International Science Press, Vol. 9, no 5, pp.527-535.
- Vetrivel, KP, Subramaniam, R, Somasundara Vinoth, K, 2016, 'Influence of wear parametres on dry sliding wear behaviour of Al alloyhybrid composites using taguchi mechod, vol. 10, no 6, pp. 51-56.

3.7.2. Papers presented in international conferences

- Kavitha, M, Subramaniam, R, Monajkumar, S, Box-Bhenken experimental design for the process optimization of strontium substituted hydroxyapatite, International Journal of Science and Engineering Applications, special issue NCRTAM ISSM – 2319-7560 (online).
- Shalini, S, Balasundaraprabhu, R, Satish Kumar, Prabavathy, N, Senthilarasu & Prasanna, S, 2016, 'status and outlook of sensitizers/dyes used in dye sensitized solar cells (DSSC): a review', International Journal of Energy and Research, DOI: 10.1001/er.3538.

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	BE Metallurgy - I Year	57
2	BE Metallurgy - II Year	75
3	BE Metallurgy - III Year	79
4	BE Metallurgy - IV Year	78
5	M.E Industrial Metallurgy – I Year	09
6	M.E Industrial Metallurgy – II Year	13
7	M.E Industrial Metallurgy Part Time II Year	05

4.2. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1	Paper presentation	20	8

4.3. Final year project work

4.3.1. UG project (regular)

S.No	Roll No	Name	Title	Guide
1	12Y203	Afroz Ahamed A	Optimisation of SG iron properties using magma	Dr. P.Gopalakrishnan
	13Y501	Prabhakar K G		
2	12Y217	Nagarajan K	Dissimilar welding of MDN 250 and 17-4phss using different filler materials ,different PWHT and evaluation of mechanical properties	Dr.P.Gopalakrishnan
3	12Y220	Ramesh Krishna U	To study the effect of activators and grain size of filler material on boriding	Dr.P.Gopalakrishnan
	13Y401	Haridhas M		
	13Y403	Naveen M		
4	12Y118	Parameshwaran S	Chromising and Boronizing of stainless steel	Dr. P.Gopalakrishnan
	12Y120	Praveenraj D		
	12Y130	Sivaganapathy Subramanian		
	13Y435	Karthick Km		

S.No	Roll No	Name	Title	Guide
5	12Y101	Ajithkumar S	A study on hot cracking in welding of super austenitic stainless steel(smo 254) using gtaw	Dr.V.Balusamy
	12Y201	Abishek C		
	12Y215	Lajapathy S		
	13Y402	Kathiravan A S		
6	12Y121	Radhakrishnan S	A Comparative study on hot cracking susceptibility of Inconel 617 in direct and pulsed current GTAW	Dr.V.Balusamy
	12Y204	Akash Kumar A		
	12Y228	Vishnuprabhu M R		
	13Y431	Boopalan A R		
7	12Y115	Manibharathi M	Production and characterisation of Al-Graphite-rice husk ash composite	Dr.R.Subramanian
	12Y119	Poonthamil V		
	12Y224	Sooriya naayananen R		
	13Y438	Vibinkumar V		
8	12Y106	Arun Murali	Synthesis and Characterization of $ce_2zr_2o_7$ by solution assisted combustion technique	Dr.R.Subramanian
	12Y206	Kannan T S		
	12Y212	Ashwin Kumar M		
	12Y222	Santhosh M		
9	12Y105	Arul A	Improving the wear resistance of D2 steel by surface coatings	Dr.J.Krishnamoorthi
	12Y108	Dhivakar Raja D		
	12Y223	Sidharth S		
	13Y434	Karthi P		
10	12Y129	Sindhu M	Molecular dynamic simulation of radiation of radiation damage in nuclear cladding materials	Mr.S.Anandan Dr.J.Krishnamoorthi
	12Y210	Hariram S		
	12Y213	Kavya G		
	12Y214	Keerthana S		
11	12Y113	Karthik Raja A	Determination of corrosion properties of super austenitic stainless steel at different heat treated conditions	Dr.K.Thillairajan
	12Y126	Santhosh N		
	12Y218	Naresh Kumar S I		
	12Y110	Gokul R		
12	12Y114	Mahendran P	Design of steels by artificial neural network and its validation	Dr.K.Thillairajan
	12Y116	Mohan Kumar P		
	12Y208	Gaddam Arunkumar		
	13Y436	Praveenram S		
13	11Y114	Joshua M	Optimisation of Cu Additions on Mechanical Properties and Microstructure of LM25 Alloy Using Rheo Die Casting(RDC) Process	Dr. J.Anburaj
	12Y211	Jenin Kumar J		
	12Y219	Pradeep Raj K		
	13Y433	Gokulakrishnan V		
14	12Y109	Gayathri S	Studies on Preform Shape Optimization of Forging Process Using Finite Element Analysis	Dr.R.Sivasankari
	12Y127	Sasipriya S		
	12Y226	Vinodhini P		
	12Y132	Usha Rani S		
15	12Y117	Om Kumar Singh	Fabrication of Al-Graphite Composite using Ultrasonic Assisted Stir Casting Technique	Dr.M.Kavitha
16	12Y107	Chaphoa Wangno	Evaluating the High Temperature Deformation Behaviour of Bt_3 -1 Ti Alloy	
	12Y216	Manav Verdia		
17	12Y128	Shenkis J	Super Solidus Joining of Cu and Al-	Dr.M.Kavitha

S.No	Roll No	Name	Title	Guide
	12Y133	Vasanth Kumar S	Si Sheets Over Pure Al Casting	
	13Y404	Rajasekar A		
	13Y405	Sasikumar K		
18	12Y102	Akalya A	Thermodynamic Modelling and Experimental Validation of Mg-Sn-Y Alloy	Mr.T.Satishkumar
	12Y221	Raseem Ahmed R		
	12Y227	Vishnu Vardhan R		
	13Y437	Sandeep Prabhu B		
19	12Y112	Harish Hemanth M	Synthesis and Characterization of Al-Si-Mg(A356) /Bagasse Ash Particle Reinforcement Composite Via Stir Casting Method	Mr.T.Satish kumar
	12Y122	Ragul R		
	12Y205	Arun Karthik S		
	13Y407	Tamilselvan S		
20	12Y124	Rizwaanullah E	Synthesis and Characterization of Ni-Ti ₂ Composite Coating on Mild Steel Using Pulse Electrodeposition	Mr.A.Gowrishankar
	12Y125	Sadhasivam K K		
	12Y131	Subramani P		
21	12Y103	Akshayaa R R	Study on High Cr ODS Materials as Steel Cladding Materials for Future Fast Breed Reactors	Mr.G.Venkatesh
22	12Y111	Haripria T P	Development and Characterization of Mgo Coatings On SS316 Using Pulsed Laser Deposition	Mr.G.Venkatesh
23	12Y202	Aditi S	Studies on Plasma Sprayed Coatings of Different Thickness of Core Catcher Plate Application in Fast Breeder Reactors	Mr.G.Venkatesh
24	12Y209	Hari Shobhana M	Fatigue Life Improvement in 8190 Turbine Shaft	Mr.G.Venkatesh
25	12Y104	Anukrithika K	Development of Thixoformable Mg-Zn-Y Alloy	Mr.S.Anandan
	12Y207	Athiyan A		
	12Y225	Vijaya nivashini S		
	13Y406	Sridhar P		

4.3.3 PG Project

4.3.3.1 ME Industrial Metallurgy

S.No	Roll No	Name	Title	Guide
1	14MY01	T.Annamalai	Thermo-Mechanical processing of Ti-6Al-4V using Multi Axial Isothermal Forming	Dr.J.Krishnamoorthi
2	14MY02	A.Ashok	Synthesis and characterization of Hydroxyapatite (HAp) powder and its coating on stainless steel substrate by electrophoretic deposition	Dr.M.Kavitha
3	14MY03	M.Ganesh Kumar	Electron Beam Welding of Super Austenitic Stainless steel and its characterization	Dr.K.Thillairajan
4	14MY04	G.V.Nehru Pragash	Study on the effect of Tempering temperature and time on the mechanical properties of low alloy steels	Dr.V.Ramaswamy

S.No	Roll No	Name	Title	Guide
5	14MY05	N.Nivas	Optimization of Decantation time on the Microstructural and mechanical properties of the Al-Si alloys produced using Cast Decant Cast (CDC) process	Dr.J.Anburaj Mr.T.Satish Kumar
6	14MY06	B.Shajil Jubair	Effect of Different milling process on particle sizes of tungsten carbide and their final sintered properties	Dr.P.C.Angelo Dr.P.Gopalakrishnan
7	14MY07	G.Siva	Synthesis and characterization of Pervoskite Oxide ceramics for Wear Resistance Coatings.	Dr.R.Subramanian
8	14MY08	K.Thangamuthu	Effect of post weld heat treatment on the microstructural and mechanical properties of P92 steel TIG and A-TIG weld joints	Dr.V.Balusamy
9	14MY09	R.Vinoth Kanna	Understanding the corrosion Behavior of Duplex Stainless steels of varying composition	Dr.M.Kavitha
10	14MY31	J.Joel Bhagyanath	Thermal conductivity measurement of 8ysz porous vs dense Thermal barrier coatings and bulk compacts	Dr.R.Sivasankari
11	14MY32	M.Manoj Kumar	Study on Effect of Heat treatment and Effect of alloying elements on fluidity of LM27 Alloy	Dr.J.Anburaj
12	14MY33	Nikil Koshy Jacob	Processing and characterization of cyclic channel die compressed 304L Austenitic Stainless Steel	Dr.J.Anburaj
13	14MY34	M.Vassanth	Development and characterization of A319-Al ₂ O ₃ Nano composite	Dr.J.Krishnamoorthi Mr.A.Gowri Shankar

4.4. Competitive exam

S.No.	Exam	No. of students appeared	Name
1	GATE	1	G.Kavya

4.5 PLACEMENT DETAILS

S.No	Roll No	Name	Company Placed	Package per annum (lakhs)
1	12Y101	Ajithkumar S	Vedanta, Accenture	2.8
2	12Y102	Akalya A	TCS	3.2
3	12Y103	Akshayaa R R	Sundaram Fasteners	2.8
4	12Y104	Anukrithika K	Accenture, Sundaram Fasteners	3.0
5	12Y105	Arul A	Accenture	3.0
6	12Y107	Chaphoa Wangno	Vedanta, Accenture	3.0
7	12Y108	Dhivakar Raja D	Accenture	3.0
8	12Y110	Gokul R	Craftsman Automation	3.4

S.No	Roll No	Name	Company Placed	Package per annum (lakhs)
9	12Y111	Haripria T P	L & T, Mumbai	3.2
10	12Y112	Harish Hemanth M	Accenture	3.0
11	12Y113	Karthik Raja A	Accenture	3.0
12	12Y114	Mahendran P	Cognizant	3.2
13	12Y115	Manibharathi M	Cognizant, Sanmar Foundries	3.2
14	12Y117	Om Kumar Singh	Mu-sigma	4.5
15	12Y119	Poonthamil V	Cognizant	3.2
16	12Y120	Praveenraj D	Accenture	3.2
17	12Y122	Ragul R	Peekey steels	3.0
18	12Y124	Rizwaanullah E	Cognizant	3.2
19	12Y125	Sadhasivam K K	Sundaram Fasteners, Accenture	3.0
20	12Y127	Sasipriya S	Accenture	3.0
21	12Y128	Shenkis J	Cognizant, Jindal saw	3.2
22	12Y129	Sindhu M	Accenture, Sundaram Fasteners	3.0
23	12Y130	Sivaganapathy Subramanian R	Accenture	3.0
24	12Y131	Subramani P	Infosys	3.4
25	12Y133	Vasanth Kumar S	Cognizant	3.2
26	12Y202	Aditi S	Vedanta, Accenture	3.2
27	12Y203	Afroz Ahamed A	Sundaram Fasteners, Infosys	3.4
28	12Y204	Akash Kumar A	Wipro	3.2
29	12Y206	Ashwin Kumar M	Accenture	3.0
30	12Y207	Athiyan A	L&T , Mumbai	3.4
31	12Y208	Gaddam Arunkumar	Infosys	3.4
32	12Y209	Hari Shobana M	Accenture, Sundaram Fasteners	3.0
33	12Y210	Hari Ram S	Kreatio software ltd, Jindal saw	3.2
34	12Y211	Jenin Kumar J	Accenture	3.0
35	12Y212	Kannan T S	Accenture	3.0
36	12Y213	Kavya G	Infosys, Sundaram Fasteners	3.2
37	12Y214	Keerthana S	Infosys	3.4
38	12Y215	Lajapathy S	Cognizant	3.4
39	12Y216	Manav Verdia	Bharath Forge	3.2
40	12Y217	Nagarajan K	Bharath Forge	3.2
41	12Y219	Pradeep Raj K	Accenture	3.0
42	12Y220	Ramesh Krishna U	Infosys	3.4
43	12Y221	Raseem Ahmed R	Sundram Fasteners	3.2
44	12Y223	Sidharth S	Ugam Solutions	4.0
45	12Y225	Vijaya Nivashini S	Accenture	3.0
46	12Y226	Vinothini P	Accenture	3.0
47	13Y401	Haridhas M	Craftsman Automation	3.4

S.No	Roll No	Name	Company Placed	Package per annum (lakhs)
48	13Y402	Kathiravan A S	Accenture, Sanmar Foundries	3.2
49	13Y403	Naveen M	Craftsman Automation	3.4
50	13Y404	Raja Sekar A	LGB Foundries	2.8
51	13Y407	Tamilselvan S	Craftsman Automation	3.4
52	13Y434	Karthi P	Jindal saw	3.4
53	13Y435	Karthick K M	Matlabs india	4.0
54	13Y437	Sandeep Prabhu B	Jindal saw	3.2
55	13Y438	Vibinkumar V	Acenture	3.0
56	13Y501	Prabhakar K G	Accenture, Sanmar Foundries	3.0

4.6. Industrial training and project

4.6.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1.	Sail, Salem	1,UG-6 th Sem	2 weeks	Iron and Steel Making
2.	IGCAR, Kalpakkam	1,UG-6 th Sem	3 weeks	Nuclear Technology
3.	VR foundries	2,UG-6 th Sem	4 days	Foundry Technology
4.	Gishnu gears, Coimbatore	2UG-6 th Sem	1 weeks	Casting technology
5.	Madras Atomic Power Stations,	1, UG- 4 th Sem	05.06.2015-19.06.2015	Nuclear Technology
6.	Peekay Steel Castings (P) Ltd, Coimbatore	1, UG- 4 th Sem	03.06.2015-13.06.2015	Foundry Technology
7.	HAPP, Trichy	1, UG- 4 th Sem	08.06.2015-14.06.2015	Powder Metallurgy
8.	L&T, Coimbatore	3,UG-6 th Sem	2 weeks	Casting technology
9.	Midani, Hyderabad	3,UG-6 th Sem	2 weeks	Casting technology
10.	Bharat forge, Pune	3,UG-6 th Sem	3 weeks	Casting technology
11.	L&T, Mumbai	3,UG-6 th Sem	3 weeks	Casting technology
12.	Thirumurugan foundry, Tirupur	4,UG-6 th Sem	2 days	Foundry Technology
13.	Sakthi auto components, Tirupur	4,UG-6 th Sem	4 days	Casting technology
14.	IP rings, Chennai	4,UG-6 th Sem	2 weeks	Casting technology
15.	Indo shell cast, Coimbatore	4,UG-6 th Sem	2 weeks	Casting technology
16.	Jsw Steels, Bellary	5, UG- 4 th Sem	01.06.2015 - 14.06.2015	Iron and Steel Making
17.	VIZAG Steels, Vishakapattinam	6, UG- 4 th Sem	01.06.2015 - 14.06.2015	Iron and Steel Making
18.	Sail, Salem	10, UG- 4 th Sem	06.06.2015 - 12.06.2015	Iron and Steel Making

S.No.	Name of company	No. of students & course	Period	Area of training
19.	JSW Mecheri	10 UG -4 th Sem	1 week	Iron and Steel Making
20.	Bradken Foundries	6UG – 4 th Sem	2 weeks	Casting Technology
21.	VIZAG steel plant	10 UG – 4 th Sem	1 week	Iron and Steel Making
22.	JSW bellari	10 UG – 4 th Sem	1 week	Iron and Steel Making

4.7.2 Project work / Internship

S.No.	Name of company	No. of students & course	Period	Area of work
1	Tata Steels, Jamshedpur	1- UG-4 th Sem	May 2015– June 2015	Iron and Steel Making
2	IGCAR, Kalpakkam	1-UG-6 th Sem	May2016	Nuclear Technology
3	ARCI, Chennai	2-UG-6 th Sem	May2016	Basic metallurgy
4	IGCAR, Kalpakkam	1-UG-6 th Sem	May2016	Nuclear Technology
5	IISc Bangalore	4-UG-6 th Sem	May2016	Material Processing

4.8. PSG Tech students pursuing higher studies

S.No	Name of student	Degree pursuing	University
1	Akalya A	MS	CLEMSON UNIVERSITY
2	Kavya G	MS	CLEMSON UNIVERSITY
4	Usha Rani	ME	PSG TECH
5	Vishnu Prabhu M R	ME	PSG TECH
6	Ragul R	ME	PSG TECH

4.9. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1983	11		1992	21	6	2001	21	6	2010	38	21
1984	19	8	1993	24	4	2002	19	2	2011	35	15
1985	10	3	1994	18	6	2003	30	9	2012	60	18
1986	19	4	1995	19	6	2004	31	9	2013	70	18
1987	18	2	1996	31	5	2005	34	6	2014	73	16
1988	15	3	1997	13	2	2006	33	13	2015	76	28
1989	8	4	1998	22	2	2007	32	1	2016	78	13
1990	17	4	1999	19	5	2008	32	10			
1991	20	5	2000	6	1	2009	30	6			

5. SUMMARY

S. No.	Activity	No.
1.	National conferences conducted	1
2.	Sponsored research projects ongoing	1
3.	Sponsored research projects completed till date	28
4.	Scholars pursuing doctoral research	23

S. No.	Activity	No.	
5.	Doctorates produced till date	35	
6.	Papers published in international journals	8	
7.	Papers presented in international conferences	1	
8.	Awards won by faculty	1	
9.	No. of. students passed out during 2015-16	UG	78
		PG	24
10.	No. of. students passed out till date	UG	1002
		PG	272

DEPARTMENT OF PRODUCTION ENGINEERING

ABOUT THE DEPARTMENT

As manufacturing activities play a major role in the development of the country, PSG College of Technology envisaged the need for trained manpower in the field of manufacturing and thus, the undergraduate programme in Production Engineering was started in the year 1975. Subsequently, the department grew in several dimensions of academic excellence with time. The programme has been accredited for five years in the year 2012 by the National Board of Accreditation for maintaining its previous accreditation status. All the laboratories of the department are approved for carrying out research, leading to Ph.D Degree (full time and part time) programmes by Anna University, Chennai. Currently, there are 38 research scholars pursuing their Ph.D work in the department. The department offers consultancy in manufacturing processes, design and testing a range of products, including product styling. The department maintains a close liaison with a large number of universities and industries within the country and across overseas through faculty research and collaborative projects. The teams of dedicated faculty members nurture the programme and actively contribute towards the creation of a persuasive and a high quality learning environment. There is a strong interaction with industry majors like M/s Larsen & Toubro, General Electric, Bangalore, Ashok Leyland, TAFE, Tata Consultancy Services Ltd. and a few more.

As the BE Programme in Production Engineering (Regular) was received well by the industry, an innovative planning resulted in the creation of BE-Production Engineering (Sandwich) programme, in the year 2002. The students of this programme undergo industrial training in addition to the academic process that is provided in the regular BE programme. As a result, the students are equipped with skills that make them ready to be deployed on the job. They undergo internships in several industries. There is a well planned curriculum for industrial training that smoothly transforms the students to an employable professional.

Industry Training

The Sandwich students enrolled for 5 years are exposed to an extensive industrial training by utilizing the facilities of the PSG Industrial Institute, Coimbatore, a full fledged manufacturing industry, within the premises of PSG College of Technology. The curriculum for the sandwich programme is designed to impart additional practical knowledge and other general facets of industry right from planning to entrepreneurship. In addition to the in-house training, students undertake summer internship for 3 months in leading industries in India and abroad at the end of their third year. Such training programmes play a vital role not only in the professional development but also in the career aspects of the students.

Post Graduate Programmes

The need for post graduate engineers in production engineering was felt in order to strengthen the research base of the industry so that the manufacturing industry can assimilate the latest design and make manufacturing to be cost effective. Thus, the post graduate programme in Production Engineering commenced in the year 1964. For the benefit of the practising engineers ME-Production Engineering (part time) programme was also started in the year 1964 with the same curriculum as the full time programme.

Production engineering is a specialized field taking inputs from several areas of engineering and science, a curriculum that covers knowledge on materials, manufacturing processes, material selection, optimization techniques, economics, CAD/CAM, and Finite element applications which are shaped by the industry contribution with the involvement of industry. There are well equipped laboratories where the students can work in depth to gain knowledge in selected domains of manufacturing. Students of this programme are hired by IT firms, manufacturing companies and academic institutions for teaching and research.

The advent of internet and information technology created an impact on business in general. As a result, new paradigms like e-business and e-commerce were evolved. In the domain of product design and development, new philosophies like Collaborative Product Design, Collaborative Product Commerce, Product Data Management, Product Life Cycle Management and knowledge management became the jargons. To cater to the needs of the industry with market conditions with time compression and mass customization as their priorities, a new PG programme on (Collaborative) Product Design and Commerce, a blend of IT and core engineering was started in the year 2002. Students of this programme are absorbed by several OEMs to take care of their IT enabled product development services.

The past decade has seen developments in several areas of industry such as of CAD/CAE and CAM. From the perspective of a complete representation of a system for decision making the CAD/CAE/CAM solutions were found insufficient and the need for visualization was felt. Thus, CAD neutral visualization products were developed. But the complete interaction with a virtual product or a system in an immersive environment was found to be very powerful in decision making and compressing development time. This class of manpower with such knowledge and interest in pursuing research in the area of developing virtual environment for specific cases was not found as there were no programmes offered at the master's level with the necessary inputs. As a result, ME-Programme on Virtual Prototyping and Digital Manufacturing was started in the year 2012. Defence laboratories of Govt. of India, Ship building industries, Aviation, Automotive, Infrastructure development, Facility planners for townships, Architecture, Medical education and training for health care are the beneficiaries of this programme. The courses are handled by experts in the field of CAD/CAE/CAM and Virtual reality with good industrial experience.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.R.Rudramoorthy, Ph.D Principal	principal@psgtech.edu, principal@psgtech.ac.in	1984	Computational fluid mechanics and heat transfer, Heat power engineering, Energy engineering, Refrigeration and air-conditioning
2	Dr.K.Prakasan, Ph.D Professor & Head	kpr@pro.psgtech.ac.in	1997	Advanced materials and manufacturing, Metal forming, Metal castings, Metal matrix composites, PLM/PDM product development
3	Dr.S.R.Devadasan, Ph.D, D.Sc Professor	srd@pro.psgtech.ac.in	1989	Industrial engineering, Total quality management, Agile manufacturing, Total productive maintenance, Innovative management, Six sigma at lean manufacturing
4	Dr.R.Gandhinathan, Ph.D Professor	krg@pro.psgtech.ac.in	2008	Industrial engineering, Concurrent engineering, Production / operation management, Industrial economics, Cost management finance

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
5	Dr.P.Sadagopan, Ph.D Professor	sadagopanp@ird.psgtech.ac.in	2012	Surface engineering, Design of auto components, Failure analysis, Metal forming
6	Dr.V.Krishnaraj, Ph.D Associate Professor	vkr@mec.psgtech.ac.in	1999	Composites, Machining
7	Dr.M.Senthil kumar,Ph.D Associate Professor	mks@pro.psgtech.ac.in	2000	Machining Design, Vibration, Composites
8	Dr.S.Saravanan, Ph.D Associate Professor	ssn@pro.psgtech.ac.in	2001	Vibration Engineering, Nontraditional machining, Tolerance analysis, Design for manufacture and assembly, Geometric modeling
9	Dr.S.Elangovan, Ph.D Associate Professor	sel@pro.psgtech.ac.in	2005	Advanced manufacturing, CAD/CAM, Welding
10	Dr.K.Somasundara Vinoth, Ph.D Associate Professor	kvs@pro.psgtech.ac.in	2004	Finite element analysis, CAD/CAM, Geometric modeling, Foundry technology
11	Dr.V.Jaiganesh, Ph.D. Asst. Professor (Sl. Gr.)	vj@pro.psgtech.ac.in	2007	Foundry science and Engineering, Process optimization
12	Mr.M.R.Pratheesh Kumar, M.E., MBA Asst. Professor (Sl. Gr.)	pratheesh@pro.psgtech.ac.in	2009	Non-traditional machining, Metrology
13	Dr.K.Kannan, Ph.D Asst. Professor (Sr. Gr.)	nkk@pro.psgtech.ac.in	2001	Energy engineering, Computational fluid dynamics
14	Dr.G.Madhan Mohan, Ph.D Asst. Professor (Sr. Gr.)	gmm@pro.psgtech.ac.in	2002	Computer numerical control, Automation, Ergonomics, Machining Technology
15	Mr.R.Rajamani, M.E. Asst. Professor (Sr. Gr.)	rrm@pro.psgtech.ac.in	2008	Metrology, Machine vision
16	Mr.R.Arun Prakash, M.E. Asst. Professor (Sr. Gr.)	rap@pro.psgtech.ac.in	2008	CAD/CAM, Engineering design, Mechanical vibrations
17	Mr.J.Pradeep Kumar,M.E. Asst. Professor (Sr. Gr.)	jpk@pro.psgtech.ac.in	2009	CAD/CAM, Ultrasonic metal welding, Production and operation management
18	Mr.M.Madhu, M.E. Asst. Professor (Sr. Gr.)	mmu@pro.psgtech.ac.in	2009	Fluid power engineering, Robotics and automation
19	Mr.K.Anand, M.E. Asst. Professor (Sr. Gr.)	kan@pro.psgtech.ac.in	2010	Production engineering
20	Dr.S.P.Leo Kumar, Ph.D. Asst. Professor	leo@pro.psgtech.ac.in	2008	CAD/CAM/CIM, Robotics, Thermal engineering, Metal forming and knowledge based system
21	Mr.R.Rajesh, M.E. Asst. Professor	rrh@pro.psgtech.ac.in	2012	Tool design, CAD/CAM, Metal forming

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
22	Mr.T.Anantharaj, M.E. Asst. Professor	art@cad.psgtech.ac.in	2012	CAD/CAM, Virtual reality
23	Mr.C.Vigneswaran, M.E. Asst. Professor	cvn@pro.psgtech.ac.in	2012	Quality control and metrology
24	Mr.P.Ashok, M.E. Asst. Professor	pak@pro.psgtech.ac.in	2012	Advanced manufacturing, CAD/CAM
25	Mr.S.Kannan, M.E. Asst. Professor	skn@pro.psgtech.ac.in	2013	Robotics, Shape memory alloys, Biomaterials, CIM
26	Mr.N.Krishnakumar, M.E. Asst. Professor	nkr@pro.psgtech.ac.in	2013	Manufacturing technology, Metal forming, Rapid prototyping, Welding technology, Composite materials
27	Mr.R.Naveen Anthuvan, M.E. Asst. Professor	rna@pro.psgtech.ac.in	2013	Non-traditional machining, Rapid prototyping, Composites, Tool design
28	Mr.S.Pratheesh Kumar, M.E. Asst. Professor	spk@pro.psgtech.ac.in	2013	Advanced manufacturing process, Non-traditional machining, Precision machining, Total quality management
29	Mr.S.Sajin Calvin, M.E. Asst. Professor	scs@pro.psgtech.ac.in	2013	Machining technology, Engineering mechanics, Process planning, Operations management, Simulation, Supply chain management, Lean manufacturing
30	Mr.K.S.Manobala, M.E. Asst. Professor	ksm@pro.psgtech.ac.in	2013	Tribology of composites, Physical metallurgy, Optimization
31	Mr.S.Hari Chealvan, M.E. Asst. Professor	shc@pro.psgtech.ac.in	2014	Computer Integrated Manufacturing
32	Mr.B.Arunkarthik, M.E. Asst. Professor	akb@pro.psgtech.ac.in	2014	Engineering Design
33	Mr.K.Saravanakumar, M.E. Asst. Professor	ksk@pro.psgtech.ac.in	2014	Production Engineering
34	Ms.R.Priyadarshini, M.E. Asst. Professor	rpd@pro.psgtech.ac.in	2015	Virtual reality
35	Mr.R.Rinu Kaarthikeyan, M.E. Asst. Professor	rin@pro.psgtech.ac.in	2015	Production Engineering
36	Mr.N.Muthuram, M.E. Asst. Professor	nmr@pro.psgtech.ac.in	2015	Engineering Mechanics, Design Optimization
37	Dr.R.K.Ramanathan, Consultant INAE- Visiting Faculty	rkramanathan@gmail.com	2010	PDM, VR Optimisation

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
38	Mr.Ramsankar Managing Director, M/s. Maxbyte Technology, Coimbatore (Visiting Faculty)	c_s_ramshankar@ yahoo.co.in	2013	Product Lifecycle Management

2. FACULTY DEVELOPMENT

2.1 . Higher study

S. No.	Name of faculty	Programme	Year of joining & status
1	Mr.R.Rajamani	Ph.D	2009, Ongoing
2	Mr.M.R.Pratheesh Kumar	Ph.D	2010, Ongoing
3	Mr.R.Arun Prakash	Ph.D	2011, Ongoing
4	Mr.J.Pradeep Kumar	Ph.D	2010, Ongoing
5	Mr.M.Madhu	Ph.D	2011, Ongoing
6	Mr.K.Anand	Ph.D	2013, Ongoing
7	Mr.S.P.Leo Kumar	Ph.D	2012, Completed
8	Mr.R.Rajesh	Ph.D	2014, Ongoing
9	Mr.S.Kannan	Ph.D	2014, Ongoing
10	Mr.P.Ashok	Ph.D	2015, Ongoing
11	Mr.S.Pratheesh Kumar	Ph.D	2015, Ongoing
12	Mr.K.Saravanakumar	Ph.D	2015, Ongoing
13	Mr.N.Krishnakumar	Ph.D	2016, Ongoing
14	Mr.R.Naveen Anthuvan	Ph.D	2016, Ongoing
15	Mr.S.Sajin Calvin	Ph.D	2016, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of the Coordinator	Title of the programme	Collaborating agency (if any)	Period
1	Mr.M.R.PratheeshKumar Mr.R.Rajamani Mr.C.Vigneswaran Mr.K.Saravana Kumar	Workshop on Metrology and Machine Vision	-	25.07.2015
2	Mr.K.Anand Mr.R.Naveen Anthuvan	Workshop on CAD/CAM, CNC Programming and Training in 3-axis CNC Vertical Machining Centre	-	26.09.2015
3	Dr.V.Krishnaraj Dr. M.Senthil Kumar Mr.R.Naveen Anthuvan	Workshop on Manufacturing Challenges in Composites	-	08.01.2016
4	Mr.M.Madhu Mr.N.Krishnakumar	One Week Training Programme on Pneumatics, Electro Pneumatics and PLC	PSG Janatics Centre for Pneumatic and Automation	20.01.2016- 25.01.2016
5	Mr.M.Madhu Mr.N.Krishnakumar	Two Days Training Programme on Low Cost Automation - Module I		12.02.2016- 13.02.2016
6	Mr.S.Sajin Calvin Mr.S.Hari Chealvan	One Day Workshop on Lean Manufacturing	-	27.02.2016

S.No.	Name of the Coordinator	Title of the programme	Collaborating agency (if any)	Period
7	Dr.V.Krishnaraj Dr.V.Jaiganesh	Two day workshop on Design of Experiments for Robert Bosch, Coimbatore	Robert Bosch, Coimbatore	30.03.2016 – 31.03.2016
8	Mr.R.Rajesh Mr.S.Pratheesh Kumar	One day workshop on CAD/CAD, CNC programming & Training in 3-axis CNC vertical machining centre	-	26.03.2016
9	Dr.S.Saravanan Dr.K.Kannan Mr.M.R.PratheeshKumar	Conference on Product Design Virtual Prototyping and Manufacturing (CPDVM'16)	-	06.05.2016
10	Dr.S.Saravanan Dr.G.Madhan Mohan	TEQIP Sponsored 7 th National Conference on IT Enabled Product development Strategies (ITEPDS 2016)	-	07.05.2016

2.3 Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Mr.C.Vigneswaran	Two Week ISTE STTP on Environmental Studies	IIT, Bombay	02.06.2015 – 12.06.2015
2	Ms.R.Priyadarshini	Training Programme on Comsol	PSG CT, Coimbatore	19.06.2015
3	Mr.C.Vigneswaran Mr.S.Pratheesh Kumar Mr.K.Saravana kumar	ISO 9001 : 2008 Internal Audit – Training Course	PSG CT, Coimbatore	27.06.2015
4	Dr.K.Somasundara Vinoth	Pre Conference Workshop on Physical based Plasticity Models for Manufacturing Simulation	CIT, Coimbatore	04.08.2015
5	Dr.G.Madhan Mohan Mr.P.Ashok	Workshop on Advanced Experimental Techniques and Data Acquisition in Pharmacological Research	JSS College of Pharmacy, Ooty	05.10.2015
6	Mr.S.Sajin Calvin	Workshop on Data Analytics using R	PSG CT, Coimbatore	10.10.2015
7	Mr.R.Arun Prakash Mr.R.Rajesh Mr.C.Vigneswaran	One Week Workshop on Foundation Skills in Integrated Product Development	PSG CT & PSG TEQIP	23.11.2015 – 27.11.2015
8	Mr.N.Krishna Kumar	Hands on Training in PLC Programming and Networking	IMTMA, Bangalore	30.11.2015 – 02.12.2015
9	Dr.S.Elangovan	Workshop on Applying and Implementing Effective Teaching Methods for Professional Development	PSG CARE, Coimbatore	05.12.2015
10	Dr.G.Madhan Mohan Mr.P.Ashok	Workshop on Application of Different Tools used in Work Posture Assessment	IIT, Bombay	06.12.2015
11	Dr.G.Madhan Mohan	International Conference on	IIT, Bombay	06.12.2015 –

S.No.	Name of faculty	Programme	Organizer	Period
	Mr.P.Ashok	Humanizing Work and Work Environment (HWWE) 2015 and Community Nutrition & Health (CNH): A Social Responsibility		09.12.2015
12	Dr.K.Kannan	TEQIP II Sponsored Workshop on Fly Ash Management for Thermal Power Plants	IIT, Delhi	10.12.2015 – 12.12.2015
13	Dr.S.Saravanan	Fifth International Conference on Trends in Product Lifecycle Modeling, Simulation and Synthesis (PLMSS 2015)	BITs Pilani Hyderabad Campus, Hyderabad	15.12.2015 – 17.12.2015
14	Mr.B.Arunkarthik Mr.R.Rinu Kaarthikeyan Mr.N.Muthuram Ms.R.Priyadarshini	Workshop on Creative Teaching Series – Bloom's Taxonomy	PSG CT, Coimbatore	19.12.2015
15	Mr.S.Hari Chealvan	Seminar on Additive Manufacturing	PSG CT & PSG IAS, Coimbatore	22.12.2015
16	Mr.K.S.Manobala	Workshop in Manufacturing Challenges in Composites	PSG CT, Coimbatore	08.01.2016
17	Dr.P.Sadagopan	Three Day Workshop on Natural Farming	Pulicherala, Andhra Pradesh	28.01.2016 – 30.01.2016
18	Dr.S.Saravanan	Strategy for Higher Education	PSG CT, Coimbatore	30.01.2016
19	Dr.S.Elangovan Mr.N.Muthuram	QEEE Training Programme on Engineering Mechanics – Kinematics of Particles	IIT- Madras	02.02.2016 – 09.02.2016
20	Mr.S.P.Leo Kumar	Workshop on Funding Opportunity and Writing Research Proposal	PSG CARE, Coimbatore	08.02.2016
21	Mr.N.Muthuram	Software Training on Comsol Multi Physics	PSG CT, Coimbatore	12.02.2016
22	Mr.R.Naveen Anthuvan	International Conference on Materials, Design and Manufacturing Process (ICMDM 2016)	Anna University, Chennai	18.02.2016 – 19.02.2016
23	Mr.M.R.Pratheesh Kumar	FDP on Learning Improvement Techniques	IIT-Madras	10.03.2016 – 12.03.2016
24	Dr.K.Kannan Mr.N.Muthuram	QEEE Training Programme on Engineering Thermodynamics	IIT-Madras	15.03.2016 – 17.03.2016
25	Mr.S.Sajin Calvin	RTS & SSCM Training Programme on Recent Trends in Sustainability of Sustainable Supply Chain Management	IIT-Madras	18.04.2016
26	Mr.S.Sajin Calvin	Workshop on Moodle	PSG CARE	22.04.2016
27	Dr.V.Krishnaraj	Machine Tool Summit 2006 at Kochi	-	12.05.2016 – 15.05.2016
28	Mr.S.Hari Chealvan	Seminar on Gear Metrology and Measurement Methods	IMTMA, Bangalore	18.05.2016

S.No.	Name of faculty	Programme	Organizer	Period
29	Dr.V.Krishnaraj	Day Workshop on Leadership Enhancement for Professors	The Coimbatore Productivity Council, Coimbatore	24.05.2016 – 26.05.2016

2.4 Special lectures delivered

S. No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr.S.R.Devadasan	Special Lecture and tutorial session	Achieving Global Competitiveness in Engineering Education by Implementing Quality Models via ABET based Accreditation	Ranganathan Engineering College, Coimbatore	10.06.2015
2		Special Lecture	Engineering and Technology of Developing Internationally Publishable Research Papers	Karunya University, Coimbatore	26.06.2015
3		One Day Workshop on “Agile Manufacturing”	The Importance of Application Oriented Engineering Education and Agile Manufacturing	Department of Mechanical Engineering, Anna University Regional Centre, Somyampalayam, Coimbatore	25.07.2015
4		Three Day Faculty Development Programme on “Research Methodology”	Publications and Research Paper Writing-Considerations in Publishing-Journals, Impact Factor, Citation	Government Engineering College, Thrissur, Kerala	31.07.2015
5		Two Day Workshop Titled “Art and Skill of Writing Project Reports and Publishing Journal Papers”	Art and Skill of Writing Project Reports and theses and Art and Skill of Developing Internationally Publishable Research Papers, Sharpening the Knowledge on English Language while Preparing Papers for Publishing in Reputed Journals	Trivandrum Management Association, Thiruvananthapuram and chapter of Indian Institution of Industrial Engineering	14.11.2015 – 15.11.2015
6		Special Lecture	Art and Skill of Writing Project Reports and Publishing Journal	Government Engineering College, Thrissur,	24.11.2015

S. No.	Name of faculty	Title of programme	Topic	Organizer	Date
	Dr.S.R.Devadasan		Papers / Art and Skill of Developing Internationally Publishable Research Papers	Kerala	
7		Three day Staff Development Programme Titled "Art and Skill of Writing Project Reports and Publishing Journal Papers"	Art and Skill of Writing Project Reports and theses and Art and Skill of Developing Internationally Publishable Research Papers	Noorul Islam University, Thuckalay, Nagercoil, Kanyakumari district	16.12.2015 – 18.12.2015
8		International Conference on Modern, Intelligent and Green Manufacturing (ICMIGM 2015)	Innovation in Engineering	Erode Sengunthar Engineering College, Erode	12.12.2015
9		Multi-disciplinary Research Conference	Expectations of editors of high ranked journals	PSG Institute of Management, Dubai centre of Newyork Technology University and Anna University	18.02.2016
10		International Conference on Advanced Engineering and Technology for Sustainable Development (ICAETSD 2016)	Technologies, management models, innovations and Engineers	Karpagam College of Engineering, Coimbatore	19.02.2016
11		inaugural ceremony of the Mechanical Engineering Association	i) Role of Mechanical Engineering Association in the Outcome based Engineering Education ii) Impacts of lean tools and techniques in manufacturing industries	RVS Faculty of Engineering of RVS Technical Campus, Coimbatore	07.03.2016
12		One Day National Level Technical Symposium	i) Past and future of Engineering Education ii) Innovation in Engineering	Maharaja Engineering College, Coimbatore	29.03.2016

S. No.	Name of faculty	Title of programme	Topic	Organizer	Date
13	Dr.S.R.Devadasan	National Conference on Innovation in Engineering & Technology	Innovation in Engineering and Technology	Narasu's Sarathy Institute of Technology, Salem	11.04.2016
14		Workshop titled "Writing effective project proposals/ Research Article/ Ph.D. thesis	Writing Ph.D Thesis and Journal papers	Kumaraguru College of Technology, Coimbatore	04.05.2016
15	Dr.V.Krishnaraj	Workshop	Machining Challenges in Composite Materials	Department of Production Engineering, PSG CT	08.01.2016

2.5 Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr.S.R.Devadasan	Chairman – Coimbatore Chapter	Indian Institution of Industrial Engineering (IIIE)
2	Dr.M.Senthil kumar	Honorary Joint Secretary	IEI Coimbatore Chapter
3		National Executive Council Member	ISTE, New Delhi
4	Dr.S.Saravanan	Flight Commander	NCC Air Wing

2.6 Award won by faculty

S.No.	Name of faculty	Nature of award	Awarded by	Date
1	Dr.S.R.Devadasan	Best Emerging researcher award in Mechanical Engineering - Coimbatore region	Sri Easwar College of Engineering, Coimbatore	22.01.2016

3. DEPARTMENT ACTIVITIES

3.1 Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Centre for Advanced Tooling and Precision Dies	Column & base for surf test, SJ-411 fixture for small pin – 1 no.	0.57
2	Production Engineering Laboratory	Tool presetter for CNC vertical machine centre Model 3040 – 1 no.	1.57
3		LEGO brick set, code no. 9384 – 5 nos.	0.31
4	Ergonomics Laboratory	Trigno wireless EMG systems, Goniometer, EKG sensor – 1no.	14.71
5	Metrology Laboratory	Monochromatic light source PIPL No. MLS-01, S.No.	0.62

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
		152 – 1no. Optical Parallel PIPL No. OP 01A – 1no.	
6		Mitutoyo - Japan make digital dial gauge LC-0.001mm range 0-12.7 mm code: 543-309 – 1no. Mitutoyo – Japan make universal magnetic stand code: 7033B – 1no.	0.31
7		Measurement Trainer module kit	0.85

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (lakhs)
1	Mathematical Modeling and Simulation of Temperature and Stress Distribution While Joining Cylindrical Flat Metallic Profile by Ultrasonic Vibration	Mr.J.Pradeep Kumar Mr.K.SomasundaraVinoth	UGC, New Delhi	2013 In progress	4 years	8.01
2	Experimental and Numerical Investigations on Fatigue Life Prediction of Lead (Pb) Free Bore Array Electronic Packages under Vibration Loads	Dr.S.Saravanan Mr.R.Arun Prakash	AICTE, New Delhi	Completed in 2016	3 years	16.30
3	Development and Performance Testing of Metal Matrix Composite Gears using Powder Metallurgy	Dr.M.Senthil kumar Mr.V.Vijaya kumar	UGC, New Delhi	2013 In progress	3 years	5.60
4	Design and Development of Tool Geometry for Drilling of CFRP/Ti Stacks	Dr.V.Krishnaraj Dr.M.Senthil kumar Mr.A.Prabhukarthi	UGC, New Delhi	2013 Completed	2 years	7.50
5	Development of Mathematical Models using Experimental and Numerical Investigations In End Milling of Titanium Alloy (Ti6Al4V)	Dr.V.Krishnaraj Dr.K.Ganesan	DRDL, Hyderabad	2013 Completed	1 ½ years	9.9
6	Investigations to Control Distortion During End Milling of Thin Walled Ti6Al4V Alloy	Dr.K.Ganesan Dr.V.Krishnaraj	DRDL, Hyderabad	2013 Completed	1 ½ years	9.9
7	Manufacturing of Micro Components through	Dr.V.Krishnaraj Mr.M.Parthiban	ARDB, New Delhi	2014 In progress	2 years	15.18

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (lakhs)
	Wire Electric Discharge Grinding (WEDG)					
8	Development of an adaptive control system for precision machining of aircraft aluminium alloys at near minimum material zone with targeted mean	Mr.K.Ganesh kumar Dr.Selvaraj, ADA Dr.V.Krishnaraj Dr.B.Vinod	ARDB, New Delhi	2014 In progress	2 years	23.41
9	Development of Cored Brick Air Heater Design Model	Dr.T.Prabu Dr.K.Kannan Dr.R.Rudra moorthy	DRDL	Completed i in 2016		9.56
10	Development of Green Sandwich Composite for Transport & Construction Applications	Dr.M.Senthil kumar Dr.V.Krishnaraj Mr.S.Prabhakaran	CSIR, New Delhi	2014 In progress	2 years	8.53
11	Development and Realization of Piezoelectric Nano Material based Vibration ccelerometer	Dr.V.Krishnaraj	Dept. of Space, ISRO Propulsion Complex, Mahendra giri	2015 In progress	1 year	9.0
12	High Speed Machining of CFRP using Router Tools and Online Tool life Monitoring using Acoustic Emission	Mr.R.Prakash Dr.V.Krishnaraj	UGC, Hyderabad	2015 In progress	2 years	4.1
13	High Speed Machining of aerospace alloys using PVD coated cutters	Dr.J.Kanchana Dr.V.Krishnaraj Dr.Geetha Priyadharshini	DRDL, Hydrabad	2015 In progress	2 Years	9.85
14	Experimental Investigation on Sound and Vibration Damping Characteristics of Green Sandwich Composites	Dr.M.Senthil kumar Dr.V.Krishnaraj Mr.S.Prabhakaran	AICTE, New Delhi	2015 In progress	3 Years	17.64
15	Ergonomic Investigations on Manual Tasks in Manufacturing Workplaces to Reduce Fatigue and Improve Productivity	Dr.G.Madhan Mohan	AICTE, New Delhi	2015 In progress	3 Years	18.82

3.2.1 Sponsored research activities – Abstract

Mathematical modeling and simulation of temperature and stress distribution while joining cylindrical flat metallic profiles by ultrasonic vibration

Ultrasonic bonding has a wide range of applications in many industries including electronics, automotive and aerospace. Ultrasonically bonded aluminum sheets have been accepted for use in automobiles and aircrafts. Mostly, ultrasonic bonding is used to join non-ferrous metals and alloys like aluminum, copper and brass. In this current industrial scenario, there exists a demand for superior quality joints between wires and wire to flat substrates in various applications at minimum cost. When a cylindrical specimen such as a wire is bonded with a flat specimen, the quality of the joint formed depends on the interface between specimens. The transient distributions and evolution of the in-process variables, including normal stress, shear stress, slide distance, heat generation, temperature, plastic deformation on the contact interface and their interactions play critical roles in understanding the developed bonding mechanism. Hence, there is a necessity for understanding and making a systematic study in this area. Many of the industries posed a requirement for understanding the performance of the joints before making the joint as the processes and procedures involved in rectifying the defects are not cost effective. Keeping in mind the requirements, it has been decided to carry out a research in this area and to contribute to the development of metal joining technology using ultrasonic bonding.

Experimental and numerical investigations on fatigue life prediction of lead (Pb) free ball grid array electronic packages under vibration loads

This research work aims at developing a methodology based on a combination of experiments and finite element analysis (FEA) for predicting the fatigue life of lead (Pb)-free solder joints of ball grid array (BGA) electronic packages used in automotive and consumer electronic industries. Electronic components used in automotive and consumer electronics field experience a great amount of vibration during their life service. Vibration induced fatigue failure of these electronic components is one of the most important reliability issue in this field.

Due to European legislations on Waste Electrical and Electronic Equipment (WEEE) and on the Restriction of the use of Hazardous Substances (RoHS) from July 2006, the use of Pb-based solders were restricted and were replaced with Pb-free solders in electronic products. A Pb-free solder application in electronic products requires extensive knowledge in mechanics and the reliability performance of Pb-free soldered assemblies under vibration loading

Development and performance testing of metal matrix composite gears using powder metallurgy

Several aircraft, aerospace, automotive and sport application components are manufactured by using composite materials which provide considerable savings in strength-to-weight and stiffness-to-weight ratio when compared to the traditional materials. The present composite component manufacturing techniques have not fulfilled the industrial needs.

Gears made from metals, metal alloys and thermoplastic materials are well known and used in many applications. Metal and metal alloy gears generate more noise when they mesh with the other gears. Thermoplastic gears have been used to reduce the noise, but they cannot withstand the high torque load forces which damage their gears. Therefore, their applicability is limited with low torque application only. Gears used in automobile power transmission require high torque and load carrying capability. In this application, weight reduction without losing the strength needs to be achieved by means of alternative materials.

Attempting to solve this problem, the research is proposed to be carried out in the area of development of MMC gears for industrial application. This research includes design of gears,

selection of MMC materials, manufacturing of composite gears, and finally, testing the performance of developed MMC gears.

Design and development of tool geometry for drilling of CFRP/Ti stacks

Recent trends in the aerospace industry have increased the use of composites and aluminium and/or titanium alloys because of the outstanding mechanical properties that can be provided at critical load carrying locations of the aircraft. The central wing box is a critical component made of CFRP/Ti stacks. Located at the top of the fuselage, it forms the attachment point for both wings and all the engines. Holes are drilled through composite-metal stacks instead of drilling each composite and metallic material separately to minimize the positional errors and to obtain tight tolerances during the manufacturing and assembly processes. However, drilling of dissimilar materials like composite and metal stack is a challenging task for the manufacturing engineers because of the issues such as chip evacuation, effective production, and tolerance demands are made more difficult due to the drastic difference in material properties.

Development of mathematical models using experimental and numerical investigations in end milling of titanium alloy (Ti6Al4V)

Ti6Al4V (grade 5) alloy is classed as an alpha-beta alloy and is the most commonly used in aerospace, medical, marine, and chemical processing industries. Ti6Al4V is significantly stronger than the other commercially pure titanium while still retaining the same stiffness and thermal properties (excluding thermal conductivity). The alloy has a good combination of mechanical strength and low density with excellent corrosion resistance in many media. But, machining of the alloy is difficult and costly because of its poor machinability. The machinability is due to its peculiar characteristics such as poor thermal conductivity, high strength at elevated temperature, resistance to wear and chemical degradation during machining. The literature detailing the effects of various machining parameters and machining conditions on the tool life are comprehensive. However, relatively little of this data refers to their effects on milling, particularly end milling of thin Ti6Al4V aerospace components. Greater knowledge on the effects of the operating parameters on the machinability of Ti6Al4V under the selected cutting environment, cutting path, and cutting sequence on machining helps to increase the productivity and reduces the cost of manufacturing.

Investigations to control distortion during end milling of thin Walled Ti6Al4V alloy

Machining of Ti6Al4V alloy is difficult because of its poor thermal conductivity and its high strength even at elevated temperature. The machining produces severe plastic deformation in layers closer to the machined surface. The difficulty in machining and plastic deformation may be the main reasons for the induced residual stress during machining. The residual stress developed during machining induces distortion in the machined component which leads to the reduction of components fatigue life and also creates problems in the assembly. The knowledge of the effects of the operating parameters on residual stress under the selected cutting environment, cutting path and cutting sequence during pocket milling helps to control the induced residual stress and distortion in Ti6Al4V alloy thin components during and after end milling. In this research work, the influence of different machining parameters (speed, feed and depth of cut) on induced residual stress and distortion during end milling of Ti6Al4V alloy are discussed. First, the various end milling conditions using combinations of machining parameters under the selected cutting environment will be simulated using Advantage FEM software. The selected simulation results producing lesser residual stress will be validated experimentally by machining pockets in thin specimens. After pocket milling, the induced residual stress and distortion are to be measured. Finally, the process models for predicting the induced residual stress and distortion will be established.

Manufacturing of Micro Components through Wire Electric Discharge Grinding (WEDG)

Manufacturing of micro-pins with diameter less than 1 mm is a field of great interest both in research and industrial application. There is a wide variety of components of low-diameter

cylindrical geometry for various applications, including precision products such as gear shafts, valves, shafts, and parts for micro-pumps and turbines, etc. Increasing interest can also be found in the manufacturing of micro-electrodes for micro-hole EDM drilling of Ti- and Ni-base alloys for the aerospace industry. Wire electric discharge grinding (WEDG) has been considered as an economical option for the manufacturing of high-aspect ratio low-diameter cylindrical parts. However, application of the process requires an understanding of the influence of the process variables. The technological data available for WEDM are not valid for this process due to the relative rotation movement of the part with respect to the electrode. The geometrical characteristics of the cylindrical part, its rotational speed, and the energy of the discharge have been considered in the study as main input variables. Their effect on material removal rate, surface finish, and micro pin accuracy will be studied. In this project, it is planned to manufacture micro components like micro probes, core pins, round electrodes (with an $(L/D = 25/0.2)$ aspect ratio of 125 and more), and micro tools on hard and difficult to machine materials [Carbide, Tool steel & copper] which subsequently can be used for micro-EDM, micro-cutting, and micro parts for aeronautical applications by installing an improved setup in the existing WEDM.

Development of an adaptive control system for precision machining of aircraft aluminium alloys at near minimum material zone with targeted mean

The project aims at machining aircraft aluminium structures and measuring its dimension online. The dimensions measured online in a CNC machine will be compared with the design dimension and the CNC code (Program) will be altered to maintain the dimensions of the part to near minimum material zone so as to reduce the weight of the component.

Development of Green Sandwich Composite for Transport & Construction Applications

Regulatory constraints on energy consumption have influenced vehicle development for over three decades. Due to the increasing demand in oil prices, the prominence of global warming and other environmental concerns, technological advances to improve the vehicle efficiency are becoming increasingly important to compete in the global automobile market. Though there are many other ways to increase the vehicle efficiency, weight reduction of the parts is the most prominent one. Not only in the automobile market, but also in the railways, marine, and construction areas the focus on weight reduction is a major concern.

The use of lightweight structures with high strength to weight ratio has been an enduring characteristic in the transport and construction industry. The rising demand for new materials has induced a significant growth in sandwich composite technology, where sandwich core laminates are used to stiffen various composite applications such as boat hulls, automobile bonnet, hood lid, train structures, aircraft panels, flooring panels and roofs in the houses etc. The structure thus obtained possesses higher bending stiffness and high strength to weight ratio when compared to the monolithic structure. The weight reductions of upto 20% can be achieved by using sandwich structures in the place of monolithic composites.

To manufacture composite sandwich products, manual lay-up of pre-impregnated fibers over a mold surface followed by the introduction of resin using brush or roller is quite common. However this process tends to be very expensive and consumes more resin. In addition, the process is highly labor intensive and the quality control is difficult since the quality of the final product is highly dependent on the operator skills. Many of the limitations are eliminated in the vacuum assisted resin transfer molding (VARTM) process which generally reduces lay-up times and makes the fabrication process more reproducible and consistent and less dependent upon operator skills. Therefore, in this project, an attempt will be made to develop a green sandwich composite for transport and applications.

Development and Realization of piezoelectric nano material based vibration accelerometer.

This project aims at manufacturing a nano disc made of PZT+PVDF and characterizing for vibration sensing applications. The major objective of the project is to realize Nano Sensor based Piezoelectric Accelerometer.

High Speed Machining of CFRP using Router Tools and Online Tool life Monitoring using Acoustic Emission

Trimming of CFRP is one of the major processes in the aerospace industry. New tools such as routers have been developed for machining CFRP at high speeds. Edge quality of the CFRP is one of the important concerns of the manufacturing engineers; hence, it is necessary to predict the life of the routers. Predicting the tool life of routers is really difficult during machining because of the complex geometry. This project aims at machining of CFRP at high speeds using router tools with high tool life and better machined surface quality. The major objectives of the project are

- To investigate the effect of various router tool geometry and coatings on tool life using Acoustic emission.
- To investigate the effect of coatings on tool life, surface finish, and quality of the CFRP part.
- To optimize the process parameters during routing of composite components made of CFRP.

High Speed machining of aerospace alloys using PVD coated cutters

High speed machining of custom steel 465 leads to better surface finish, dimensional accuracy, and low cutting forces. The main disadvantage of high speed machining is excessive tool wear. The temperature rises more rapidly when the machining aerospace alloy is at a low cutting speed. Custom steel 465 alloys also benefit with coatings, especially when not using high-pressure coolant. The present project aims at nano-coating on cutting tools in order to machine custom steel 465 alloys at high speeds. The major objective of this work is to study the improvement in machinability of custom 465 alloys using carbide inserts with multiple nano coatings

Experimental Investigation on Sound and Vibration Damping Characteristics of Green Sandwich Composites

Traditional fiber reinforced composite materials consist of either glass or carbon fibers, coupled with a resin. These materials are strong, stiff, and light in weight, often providing superior mechanical performance at a reduced weight compared to their metallic counterparts. Utilizing these materials as face sheets for sandwich structures provide a much greater improvement in mechanical performance and are preferred in many applications with weight constraints.

Recently, considerable attention has been paid on the utilization of natural materials in structures. Utilizing natural materials over traditional, synthetic structures results in a reduction of carbon emissions from material synthesis; such a source of materials could also be renewable and recyclable. Natural fibers such as kenaf, hemp, flax, jute, and sisal provide reinforcement due to the above advantages. Among the natural fibers, flax has good mechanical properties. Properties of the Flax are nearly equal to the E-glass fiber. This cellular configuration has a strong influence on the mechanical properties of cork-based materials. Green sandwich composite material has minimal sacrifices in their mechanical properties to weight ratios. However, their vibration and acoustic properties are known less. Here, in this proposed project, a new ultra light weight green sandwich composite made of flax/ epoxy as skin and agglomerated cork as core will be developed and their sound and vibration damping properties are characterized.

Ergonomic Investigations on Manual Tasks in Manufacturing Workplaces to Reduce Fatigue and Improve Productivity

Manufacturing sector plays a vital role in Indian economy. This sector provides ample employment opportunity, as manual tasks are involved in manufacturing workplaces like foundry, machining, and

assembly. This project aims to investigate the manual tasks in manufacturing workplaces to reduce worker fatigue and improve productivity. The investigation uses ergonomic principles, which emphasises on fit-work-to-man. Manual tasks like lifting heavy weight, pull-push jobs are common in these workplaces. These tasks are to be designed based on appropriate human anthropometric data. This will reduce wrong work posture of men in work, which in turn reduces fatigue. Physiological aspects of the work men like heart rate, respiration rate, muscle activity, limb movements, and effects of force exerted by body parts indicates the level of worker fatigue. An investigation on these data is needed to reduce the fatigue. This not only reduces fatigue, but also improves the productivity levels and increases the comfort of the worker. The investigation will reveal the cause for fatigue and the methods to reduce fatigue. Work rest cycles based on fatigue rate of muscles can be arrived to improve productivity levels.

3.3 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Ms.M.Roopaa Rani	Design and Analysis of Horns for Ultrasonic Plastic Welding	Dr.R.Rudramoorthy Principal, PSG CT, Coimbatore	Completed in 05.10.2015
2	Mr.A.Nagamani	Piezoelectric Valveless Micropump	Dr.K.Prakasan Professor & Head, Dept. of Production Engg., PSG CT, Coimbatore.	2006, In progress
3	Mr.R.Rajamani	A Study on Sloshing Behavior of Liquid in a Closed Container		2009, In progress
4	Mr.M.R.Pratheesh Kumar	Modeling and Simulation of Electro Chemical Machining Process		2010, In progress
5	Mr.J.Pradeep Kumar	Studies on Ultrasonic Welding		2010, In progress
6	Mr.M.Madhu	Creation of Virtual Environment for Product Evaluation		2011, In progress
7	Mr.R.Arun Prakash	Integration of Product Reliability Test Data with PLM Solutions		2011, In progress
8	Mr.Sunilkumar S. Honnungar (QIP)	Thermal Error Modelling and Determination of Compensation Strategies in Vertical Machining Center	Dr.S.R.Devadasan, Professor, Dept. of Production Engg., PSG CT, Coimbatore	Completed 15.03.2016
9	Mr.D.T.Sunil (QIP)	Investigations on the Application of Agile Manufacturing Paradigm on the Production Regenerative Heat Air Dryers	Dr.S.R.Devadasan, Professor, Dept. of Production Engg., PSG CT, Coimbatore	2012, In progress
10	Mr.V.M.M.Thilak (QIP)	Investigations on the Implementation of Agile Manufacturing through CAD/CAM in Pump Manufacturing Industries		2013, In Progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
11	Mr.U.Abdul Kadar	Investigations on Developing Agile Supply Chain in Shoe Manufacturing Industry		2013, In Progress
12	Ms. R.Jeya Girubha	Sustainability Improvement through the Applications of Multi Criteria Decision Making Methods		In Progress
13	Mr.S.Dhinakara Rajan	Target Costing	Dr.R.Gandhinathan Professor, Dept. of Production Engg., PSG CT, Coimbatore.	2008, In progress
14	Mr.S.V.Anil Kumar (QIP)	Super Alloys Brazing		2013, In Progress
15	Mr.T.Kumaresan	Bio Compatible Material Development using RPT Technique		2015, In Progress
16	Mr.D.Manivel	Machine Tool structure vibration		2015, In Progress
17	Mr.R.Rajeev	Analysis and Improvement of Forging Tools	Dr.P.Sadagopan Professor, Dept. of Production Engg. Sandwich, PSG CT, Coimbatore.	2013, In progress
18	Mr.C.Pradip Udayakanth	Analysis of Improvement of Transmission Chains		2013, In progress
19	Mr.S.R.Durairaju	Study and Development of Composites for Auto Components		2013, In progress
20	Mr.V.Govindarajulu	Influence of Tolerance Stack up on Performance of Assemblies		2013, In progress
21	Mr.M.Selvaraj	Solar Drier for Drying the Tapioca Pappad		2014, In progress
22	Mr.M.Sankar	Metal Matrix Composite		2015, In progress
23	Mr.V.Harish	Master Science Research in transmission chains		2012, In progress
24	Mr.L.Prabhu	Composite Materials	Dr.V.Krishnaraj, Associate Professor, Dept. of Prod. Engg., PSG CT, Coimbatore.	2013, In Progress
25	Mr.R.Naveen Anthuvan	Micro Manufacturing	Dr.M.Senthil kumar, Associate Professor, Dept. of Prod. Engg., PSG CT, Coimbatore.	2016, In Progress
26	Mr.P.Govindaraj	Vibration Study on Piping	Dr.S.Saravanan, Associate Professor, Dept. of Production Engg., PSG CT, Coimbatore.	2013, In Progress
27	Mr.S.Kannan	Material Characterisation for Stent Application	Dr.S.Saravanan, Associate Professor, Dept. of Production Engg., PSG CT, Coimbatore.	2014, In Progress
28	Mr.R.Rajesh	Sheet Metal Forming	Dr.S.Saravanan, Associate Professor, Dept. of Production Engg., PSG CT, Coimbatore.	2014, In Progress
29	Mr.K.Saravanakumar	Fatigue in Electronic Packages		2015, In Progress
30	Mr.S.Sajin Calvin	Combinatorial optimization of scheduling problem		2016, In Progress
31	Mr.S.Pratheesh Kumar	Sheet Metal Forming	Dr.S.Elangovan, Associate Professor,	2015, In Progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
32	Mr.K.Anand	Ultrasonic Inserting and Staking of Industrial Components	Dept. of Production Engg., PSG CT, Coimbatore.	2013, In Progress
33	Mr.K.R.Kiron (QIP)	Technological Innovation in SMEs	Dr.K.Kannan Asst. Professor, Dept. of Prod. Engg., PSG CT, Coimbatore	2013, In progress
34	Mr.S.A.Binoosh (QIP)	Ergonomics	Dr.G.Madhan Mohan Asst. Professor, Dept. of Production Engg., PSG CT, Coimbatore.	2010, In progress
35	Mr.V.Narendra	Ergonomics		2013, In progress
36	Mr.M.Senthil Kumar	Virtual Manufacturing		2013, In Progress
37	Mr.P.Ashok	Industrial Ergonomics		2015, In Progress
38	Mr.D.Vasanth Kumar	Supply Chain Management		2013, In Progress
39	Mr.V.Viswanathan	Manufacturing		2009, In Progress
40	Mr.N.Krishnakumar	Functionally Coated Components	Dr.K.Somasundara Vinoth, Associate Professor, Dept. of Production Engg., PSG CT, Coimbatore.	2016, In Progress
41	Mr.S.P.Leo Kumar	Investigations on Intelligent Process Planning System for Tool based Micromachining Processes	Dr.J.Jerald, Assistant Professor, Dept. of Production Engineering, National Institute of Technology, Trichirappalli	Completed in 18.04.2016

3.3.1 Doctoral research - Abstract

Design and Analysis of Horns for Ultrasonic Plastic Welding

Supervisor

Dr.R.Rudramoorthy

Candidate

Ms.M.Roopa Rani

Ultrasonic welding (USW) is widely used for joining of plastics because it offers advantages in speed, economy and efficiency and frequently chosen while joining parts that are too complex or expensive to be moulded in one piece. Weld times of less than one second are typical. In USW, the parts to be joined are held together under pressure and are then subjected to ultrasonic vibrations, at a frequency of ~20 kHz. The consequent alternating stresses generate localized heat in the plastic which soften, melt and solidify to form a bond. When compared to the other joining processes like hot plate welding, vibration welding and spin welding processes the heat affected zone is minimum in USW. The 'ultrasonic horn' is the key tool used for welding which has two main functions: 1) to

introduce ultrasonic vibrations into parts being welded and 2) to apply pressure to form a weld once joined surfaces have been melted.

Horn is a specialised tool designed to vibrate in a longitudinal mode at ultrasonic frequencies. Reliable performance of such horns is decided by the uniformity of vibration amplitude at the working surface and the severity of stress developed during loading condition. The horn design engineer must pay particular attention to designing a tool that will produce the desired amplitude without damaging the horn. Considerable literature explaining the dynamics of the horn both analytically as well by finite element methods is available.

In the first Phase the 'Study of different horn profiles made of Al alloy' is taken up. The objectives of this phase are to (a) characterize the dynamic performance of different horn profiles used in the industry and by horn profiles from literature and develop a methodology for designing an ultrasonic horn and understand the performance of each horn by welding ABS plastic components as each horn has different amplitude which affects the heating mechanism responsible for welding.

In the second phase the 'Design and optimization of a large tubular slotted horn' is attempted. The objectives of this phase are (a) to develop a large tubular slotted horn for welding a large industrial component for obtaining uniform amplitude at the face of the horn (b) to formulate an optimization problem using design of experiment (DOE) and (3) to develop regression equations and graphs from which the dimensions and positions of the slots can be optimized.

In the third Phase 'The thermo-elastic heating of horns made of different materials' is investigated. The objectives of this phase are (1) to evaluate the stress levels due to cycling loading experienced by the horn for different amplitudes and determine the maximum amplitude limit for each horn material for safe operation (2) develop a model for temperature distribution in the horn for predicting the thermo elastic heating effects and (3) to estimate the safe working temperature of the horn. Different materials have different thermo elastic behavior and hence different stresses / temperatures at their nodal regions.

A methodology is formulated to carry out the research work with these objectives. In the first phase different horn profiles (Catenoidal, Gaussian, Stepped) used by the industry and a Bezier horn profile (from literature) have been characterized in terms of their dynamic behavior using mathematical modeling and FEA. The dynamic characteristics are the natural frequency, displacement amplitude and the von Mises stresses of the horns. Standard ABS plastic parts are welded using these horns. To validate the simulated results, the horns with different profiles are fabricated using Aluminum (AA6351), tested and tuned to the operating frequency. Standard ABS plastic parts are welded using these horns. Temperature developed during the welding of ABS test parts using different horns is recorded using sensors and National Instruments (NI) data acquisition system. The recorded temperature values are compared with the predicted values. Further, the weld strength of the joints is correlated to the weld interface temperature. These results are useful to the industry for selecting a suitable horn profile for their application.

In the second phase of the study, a large horn of complex geometry is designed for welding an industrial thermoplastic component. Large horns are to control the modal characteristics designed with slots parallel to the longitudinal motion. The position and dimensions of the slots are critical in achieving the desired longitudinal mode with uniform amplitude at the horn face. The design of experiment (DOE) is adopted to optimize the position and dimension of the slot. The optimum design parameters are arrived at based on the analysis of the regression equation and the graphs of main effects of the slot parameters. The design parameters are expressed as a fraction of the diameter ' D_h ' of the horn to form the empirical design equation.

The third phase of the study reports the internal heating of the horn due to stresses developed from high frequency vibrations and understanding the failure of horns arising from thermo-elastic effects. Four horns of different materials: aluminum, titanium, stainless steel and mild steel with same end dimensions were fabricated. The temperature developed in the horn during welding is captured using an Infra-red camera (Fluke and smart view software) and the same has been simulated using the multi-physics software 'COMSOL'. Stresses developed in the horn were determined using harmonic analysis and these stresses were used as an input to the fatigue module of ANSYS. The horns of different materials are compared from these results for their performance.

Thus, a systematic study which connects horn profile, displacement amplitude, stresses, temperature at the weld interface and safe stress limits for the horn under cyclic loading is attempted and these findings can be utilized by the industry. Also, optimising a large horn with the help of slots keeping the requirement of longitudinal motion, uniformity of displacement amplitude and reduction in mass of the horn is presented in this work.

Thermal Error Modelling and Determination of Compensation Strategies in Vertical Machining Center

Supervisor

Dr.S.R.Devadasan

Candidate

Mr.Sunilkumar S. Honnungar

The high-volatility in the present market scenario has a great impact on all manufacturing industries including engineering. This is due to the globalization and urge for responding to manufacturing agility. Further, responding quickly by manufacturers is not only the requirement but also the cost effectiveness is the need of the hour. One such impact is also on metal cutting machine tool market that has put the machine tool manufacturers across globe to manufacture more flexible machines at competitive price. The flexibility required is in terms of performance over a wide range of cutting parameters with close tolerance of components being produced. High-speed machine tool is one of the basic needs in high-speed machining that caters to above said manufacturing flexibility.

As the urge for high-speed machines is increasing, on the contrary manufacturers are posed with several challenges associated with machine tool accuracy. This is due to the fact that, the inaccuracy of machine tools themselves is a major contributor to work piece errors. Machine tool errors can be categorized into two main streams namely quasi-static or time independent errors and dynamic or time dependent errors. Out of these two, quasi-static errors are difficult to predict as well to control. In quasi-static type, thermal deformation due to thermal errors is the prime factor that influences accuracy level of component and is directly proportional to the spindle speed as well as machine table feed rate. Thermal deformation comprises more than 50% of distortions for kinematically well-aligned machines.

Most of the research outcomes as on date for thermal error compensation are not being adopted and accepted by the machine tool manufacturers. It was observed through the survey among Indian machine tool manufacturers that, there was a possibility for exploring in thermal errors for understanding as well as implementation of the same.

In order to fulfil the requirements of machine tool manufacturers with respect to the designing and manufacturing of Vertical Machining Center (VMC), the following contributions were made by carrying out the doctoral work presented in this thesis.

- i. Predicting the thermal behavior of machine tool structure by conducting the experiments for non-cutting duty cycles on VMC and mapping the temperatures obtained at different heat sources with thermal deformations.

- ii. Estimating the heat generation and heat dissipations using classical approach. Using Finite Element Method to analyse the feed-drive system of VMC for thermal behavior.
- iii. Suggesting a design modification for minimization of the temperature effect in feed-drive system so as to bring down the thermal error at tool cutting point.

Above mentioned contributions were made by developing a testing set-up for thermal error mapping. Further mathematical models developed for predicting thermal errors were compared which can be very much suited for implementation on VMC. A simple method for predicting thermal errors was suggested by carrying out Finite Element Simulation which will avoid disturbance of shop floor activities. Finally, a through-hole ball-screw was proposed and its performance was compared with and without passing coolants and it was found to be a very good option in reducing the thermal deformation of ball-screw which in turn has direct impact on tool cutting point of spindle unit.

Investigations on Intelligent Process Planning System for Tool based Micromachining Processes

Supervisor

Dr.J.Jerald,

Assistant Professor, Dept. of Production Engineering,
National Institute of Technology, Trichirappalli

Candidate

Mr.S.P.Leo Kumar

Miniaturization of product plays an important role for technological development in the field of aerospace, automobile, bio medical, semi conductor industries, etc. Micromachining is the key technology for the realization of miniaturized products with augmented number of functions. Micro machine tools are capable enough to produce precision parts with desired accuracy, but deficient in decision making. It purely depends on expertise skill and inconsistent in nature. Hence, the development of decision support system for manufacturing planning in micromachining needs research attention.

Process planning using computer is an effective approach to automate the range of decision required to convert the raw material into finished parts. In this research work, an effort has been made to develop Intelligent Process Planning System (IPPS) for conventional tool based micromachining processes. DT110 Multi process micromachining centre is considered for the investigation. Tool based micro turning, micro drilling and end milling processes are taken into account. IPPS development activities comprise of four essential elements; it includes 1.Data acquisition through experimentation, 2.Feature based modeling and part feature extraction, 3.Manufacturing logic formulation and process planning system development and 4.Validation.

Primarily, experimentation on Poly-methyl methacrylate and C360 Brass work materials were carried out for micro end milling process. C360 Brass material is chosen for micro turning and micro drilling processes. Response surface methodology and Taguchi based design of experiments were carried out. Analysis of variance has been performed to examine the influence of process variables. Process parameters optimization have been carried out using Genetic Algorithm and validated with confirmation experiments. Apart from experimentation, parameters established from literatures, manufacturer catalogues and user's manuals are stored into the system database.

Feature based modeling for part model generation and Extensible markup language schema has been incorporated for part feature extraction. Part feature verification is also carried out for Micromachining centre capability. There by, the proposed approach avoids complex feature extraction process and ensures integration of design and process planning system.

Manufacturing logic was formulated for the execution of various process planning activities. Accordingly, database has been developed for process sequence, tools, fixtures, process parameters and setup selection. Knowledge based system has been developed by incorporating the production rules. Hence, based on part feature information, IPPS performs autonomous decision making in process plan generation.

A new methodology for automatic Computer Numerical Control (CNC) code generation is exemplified for 2D micromachining. Hence, based on the feature information, work material and parameters, CNC code generation takes place automatically. It minimizes the program development time and compatibility issues. Proposed IPPS is integrated with Micromachining centre online. Validation has been carried out through the production of axis symmetry and prismatic components. There by, the developed IPPS assist in decision making for process plan and CNC code generation for the production of miniature and micro parts and it ensures true CAD/CAM integration.

3.4 Consultancy

S.No.	Name of faculty	Name of Industry	Title of work	Amount in INR (lakhs)
1	Dr.K.Prakasan Dr.G.Madhan Mohan Mr.T.Anantharaj	M/s. Metcast, Coimbatore	Modeling	-
2	Dr.P.Sadagopan	Knitvel Needles Ltd., Coimbatore	Angular riveting of needles so that lock does not fail I quickly during knitting operation. Needle life is improved	-
3		Sharadha Terry Tech, Coimbatore	Machine replacement with minimum modification of beds	-
4	Dr.V.Krishnaraj	Kongu Engineering College, Perundurai	Force measurement using drilling dynamometer	0.02
5	Dr.V.Krishnaraj	St. Joseph College of Engineering & Tech, Palai, Kerala	Force and temperature measurement and analysis	0.15
6		Mar Athanasius College of Engineering, Kothamangalam, Kerala	Surface roughness measurement and analysis	0.05
7		Mar Baselios Institute of Technology and Science, Kothamangalam, Kerala	Force measurement using drilling dynamometer	0.11
8		Mar Baselios Institute of Technology and Science, Kothamangalam, Kerala	Measurement of cutting forces using Kistler dynamometer and surface roughness measurement	0.17
9		Mar Athanasius College of Engineering, Kothamangalam, Kerala	Surface roughness measurement and analysis	0.015
10		Kongu Engineering College, Perundurai	Drilling force measurement using tool dynamometer	0.025

S.No.	Name of faculty	Name of Industry	Title of work	Amount in INR (lakhs)
11		NSS College of Engineering, Palakkad, Kerala	Surface roughness measurement and analysis	0.025
12		NSS College of Engineering, Palakkad, Kerala	Surface roughness measurement	0.017
13		RVS Technical Campus, Sulur, Coimbatore	Drilling force measurement using Dynamometer	0.068
14		Nehru Institute of Engineering and Technology, Coimbatore	Surface roughness Measurement	0.013
15		Kongu Engineering College, Perudurai-638052	Force measurement & analysis using drill dynamometer	0.080
16		N.S.S. College of Engineering Palakkad , Kerala	Machining using MQL & surface roughness measurement	0.039
17		St. Joseph's College of Engg & Technology, Kerala	Drilling force measurement using Dynamometer	0.068
18		SSN College of Engineering, Kalavakkam	Drilling force measurement using Dynamometer	0.034

3.5. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	461	-	-	-	-	-
2	GRD Library – Production Engineering	22942	5292	2794	1	26	-

3.6. Board of studies

S.No.	Date	Agenda	External experts
1	31.10.2015	<ul style="list-style-type: none"> Discussion on subjects of study and the detailed syllabi for 2015 Regulation (3-8 semester regular, 3-10 semester, sandwich). Approval of the subjects of study and detailed syllabi as in (1) Review of the revised PEO / PO and checking for sufficiency. Any other academic matter 	<p>Academic Experts</p> <ol style="list-style-type: none"> Dr.B.Mohan, Professor, Department of Mechanical Engineering, College of Engineering Guindy Campus, Anna University Chennai, Chennai Prof.A.Jothilingam, Professor & Head, Department of Production Technology, Madras Institute of Technology, Anna University , Chennai <p>Industrial Expert</p> <ol style="list-style-type: none"> Mr.Amol M Gadre Deputy General Manager, Manufacturing Services, Larsen & Toubro Limited, Precision Machining Centre, E2-C, L&T Bypass Rd,
2	09.04.2016	<ul style="list-style-type: none"> Discussion on subjects of 	

S.No.	Date	Agenda	External experts
		study and the detailed syllabi for 2015 Regulation (3-8 semester regular, 3-10 semester, sandwich) <ul style="list-style-type: none"> • Approval of the subjects of study and detailed syllabi as in (1) • Introduction of New elective for ME 2015 regulation • Any other academic matter 	Malumichampatti, Coimbatore PG alumnus 1. Mr.C.S.Ramshankar Managing Director, M/s. Maxbyte Technology, 101, AK Nagar, Saibaba Colony, Coimbatore – 641 101. University Nominee 1. Dr.M.Nataraj , Professor, Department of Mechanical Engineering, Government College of Technology, Coimbatore – 641 013.

3.7 Research publications

3.7.1 Papers published in national journals

1. Jaiganesh V and Prakasan K, "Influence of Hydraulic and Geometric Variables on the Performance of Gating Systems", *Indian Foundry Journal*, Institute of Indian Foundrymen, Vol. 61, No. 2, February 2015.
2. Senthil kumar M, "Design and Analysis of Vibration Based Tunable Dual Resonator Generator", *National Journal of Technology*, Vol. 11, No. 1, pp. 581, March 2015.
3. Kannan K, "Design Development and Analysis of Supersonic Nozzle", *National Journal of Technology*, Vol. 11, No. 2, pp. 1 - 8, June 2015.
4. Senthil kumar M, "Design and Fabrication of a Glass Fiber Reinforced Polymer Wheel for an All-Terrain Vehicle", *National Journal of Technology*, Vol. 11, No. 2, pp. 64 - 68, June 2015.
5. Senthil kumar M, "Fault Diagnosis of Automobile Starting System using Electronic Control Unit", *National Journal of Technology*, Vol. 11, No. 3, pp. 67-84, September 2015.
6. Raviprakash S K, Iniyam G, Prasanth A S and Devadasan S R, "Barriers for Effective Lean Implementation - A Literature Survey", *National Journal of Technology*, Volume 11, No.3, pp.93-101, September 2015.
7. R.Rajiev, P.Sadagopan, "Plastic Deformation Analysis of Wear on Insert Component and Die Service Life in Hot Forging Process", *Indian Journal of Engineering & Materials Sciences (IJEMS)*, Vol. 22, pp. 686-692, December 2015.
8. Rinu kaarthikeyen R and Krishnaraj V, Tool Wear Study on High Speed Machining of Ti-6Al-4V Alloy, *National Journal of Technology*, Vol.11, No.3, pp. 57 – 62, ISSN 0973 – 1334, December 2015.

3.7.2 Papers published in international journals

1. Senthil kumar M, "Shape Memory Alloy-Based Adaptive-Passive Dynamic Vibration Absorber for Vibration Control in Piping Applications", *Journal of Vibration and Control*, Vol. 21(9), pp. 1838-1847, June 2015.
2. Senthil kumar M, "Synthesis of New Aluminium Nano Hybrid Composite Liner for Energy Saving in Diesel Engines", *Energy Conservation and Management*, Vol. 98, pp. 440-448, June 2015.
3. Thiruvengadam N, Thyla P R, Senthilkumar M, Bharathiraja M and Murugesan A, "Synthesis of New Aluminum Nano Hybrid Composite Liner for Energy Saving in Diesel Engines", *Energy Conversion and Management*, Vol.98, pp. 440-448, June 2015.
4. Yuvaraja M, and Senthilkumar M, "Shape Memory Alloy-Based Adaptive-Passive Dynamic Vibration Absorber for Vibration Control in Piping Applications", *Journal of Vibration and Control*, Vol.21, No. 9, pp. 1838-1847, June 2015.
5. Senthilkumar M and Senthilkumar S, "Vibration Diagnostics for Rotating Machinery using an Expert System", *International Journal of Applied Engineering*, Vol.10, No.8, pp. 6274-6278 [ISSN.0973-4562], June 2015.

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3.7.3 Papers presented in international conferences

1. Saravanan S, Prabhu S and Muthukumar R, “Fatigue Life Prediction of Pb-free Electronic Packages under Vibration Loads”, *Fifth International Conference on Trends in Product Lifecycle Modeling, Simulation and Synthesis (PLMSS 2015)* held at BITS Pilani Hyderabad Campus, Hyderabad. Organized by ASL, Hyderabad and BITS Pilani, Hyderabad Campus, 15 - 17 December, 2015.
2. Partiban M, Krishnaraj V and Naveen Anthuvan R, “Manufacturing of Micro Electrodes through Wire Electric Discharge Grinding Process”, *International Conference on Materials, Design and Manufacturing Process (ICMDM 2016)* held at Anna University, Chennai, 17 – 19 February 2016.
3. Ashok P, Madhan Mohan G and Aravindh N., “Analysis and Improvement of Work Postures in an Automobile Industry”, *International Ergonomics Conference on Humanizing Work & Work Environment (HWWWE2015)* held at IIT Bombay, 6-9 December 2015.

3.8. Visits abroad

3.8.1. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1	Gowtham.T (12P613)	University of Leeds, United Kingdom	02.08.2015 - 10.08.2015	Internship

4. STUDENT ACTIVITIES

4.1 Student strength

S. No.	Class	No. of students
1	B.E. Production Engineering - I year	58
2	B.E. Production Engineering - II year	73
3	B.E. Production Engineering - III year	69
4	B.E. Production Engineering - IV year	74
5	B.E. (SW) Production Engineering - I year	60
6	B.E. (SW) Production Engineering - II year	72
7	B.E. (SW) Production Engineering - III year	64
8	B.E. (SW) Production Engineering - IV year	69
9	B.E. (SW) Production Engineering - V year	69
10	M.E. Manufacturing Engineering - I year	15
11	M.E. Manufacturing Engineering - II year	18
12	M.E. Product Design and Commerce - I year	12
13	M.E. Product Design and Commerce - II year	17
14	M.E. Virtual Prototyping and Digital Manufacturing - I year	8
15	M.E. Virtual Prototyping and Digital Manufacturing - II year	13
16	M.E. (PT) Production Engineering - I year	2
17	M.E. (PT) Production Engineering - III year	8

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1	Guest Lecture on Heat Treatment	Mr.Dhanapal, Manager, Best Heat Treatment, Coimbatore	80	09.10.2015
2	Guest Lecture on role of materials in design	Mr.Ravikumar, Engineer, Best Heat Treatment, Coimbatore	80	09.10.2015
2	Guest Lecture on Ergonomics	Dr.Soumyajit Ghosal, Director, SoDS University of Petroleum and Energy Studies, Dehradun	150	09.02.2016
3	Guest Lecture on Lean Manufacturing and Six Sigma	Mr.Balasubramaniam Somasundaram, Manager, ZF Pvt. Ltd., Coimbatore	80	01.04.2016

4.3. Activities of Technical Society – Student chapter

S.No.	Society name	Topic	Chief guest & affiliation	No. of participants	Date
1	Society of Manufacturing Engineers	Kriya	-	70	12.02.2016 – 14.02.2016
2		Prodigy	-	65	16.03.2016
3		Manufacturing Quiz	-	50	14.10.2016
4		Forum	-	70	28.01.2016 – 30.01.2016 & 01.02.2016

4.4. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1	NCC	2	6
2	General Quiz	3	3
3	Centies'16 Volley ball, Handball, Football, Kho, Kho, Basket ball	4	4
4	Anna University Zonal	4	4
5	Inter State Sepak Takraw	3	1
6	NSS	2	2

4.5. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1	K.Vishnu Prashanth	15P132	Inter College Thiran Brahma 15'	II Place	PSG Tech	March 2016
			ZEPHYR 16'	III Place	Coimbatore Institute of Technology, Coimbatore	August 2015
				II Place	SNR College of Management, Coimbatore	February 2016
2	M.Aravinth	15P103	Impulse Blitzwiz	II Place	PSG Tech	March 2016
			Hostel Day –Chess	II Place	PSG Tech	
3	S.Sanakiyan	15P220	PSG Tech Mini Marathon	52 nd Place	PSG Tech	February 2016
	P.Rajesh Kumar	15P120		66 th Place		
4	P.Rajesh Kumar	15P120	Intramurals - Volley Ball	I Place	PSG Tech	September 2015
			Intra college 3's Volley Ball	III Place	PSG Tech	January 2016
			Hostel Day – Foot ball	II Place	PSG Tech	February 2016
5	S.Hari Kishore	14P210	Anna University Badminton	I Place	Anna University, Chennai	November 2015
			Centie's Badminton	II Place	PSG Tech	March 2016
6	R.Rajesh	14P226	Centie's Foot Ball	I Place	PSG Tech	March 2016
			Anna University – Foot Ball	I Place	Anna University, Chennai	November 2015
			Coimbatore League Foot Ball	I Place	CDFA	December 2015
			CIT Trophy	I Place	Coimbatore Institute of Technology, Coimbatore	March 2016
7	M.Jaikrishna	14P110	Excellence in Machine Drawing	V Place	PSG Tech	July 2015
	S.Hari Kishore	14P210				

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
8	P.Manimuthu S.Janarthanan	14P220 14P111	Quiz	III Place	NSS, PSG Tech	August 2015
9	S.Hari Kishore	14P210	Shuttle – Zonal Level	Winners	Anna University, Chennai	August 2015
10	M.D.Ari Prasath	13P106	Paper Presentation Project Presentation	II Place III Place	Dr.Mahalingam College, Pollachi	March 2016 March 2016
11	K.S.Divya Prakash	14P432	Paper Presentation Project Presentation	II Place I Place	Dr.Mahalingam College, Pollachi KPR College of Engineering, Coimbatore	March 2016 March 2016
12	R.Dhivakar	13P209	Project Presentation	I Place	KPR College of Engineering, Coimbatore	March 2016
13	S.Krithikraj S.Gowrimanohar an	13P213 13P115	Paper Presentation	I Place	KPR College of Engineering, Coimbatore	March 2016
14	R.Tamilselvan A.P.Kavin R.S.Vetrivel	13P127 13P117 13P129	Interstate Sepak Takraw	II Place	PSG Tech	March 2016
15	V.Vishnu Priyan	13P130	Centies Volleyball Tournament	II Place	Erode Builders Educational Trust	February 2016
16	M.Santhosh	13P225	Baja SAE India 2016	II Place	Baja SAE India	February 2016
17	V.Aswath	13P207	Anna University	III Place	Anna University, Chennai	12.12.2015
18	K.Nirmal Kumar	13P120	Zonal Cricket Tournament	Runner	Anna University, Chennai	12.12.2015
19	M.Kishor Kumar	12P110	Centies '07	Runners	Erode Builder Engineering Trust	13 – 15 February 2016
20	A.Manoj	12P113	Zonal Level Football Winners – 'B' Division Football	Winner	Anna University, Chennai Coimbatore District Football Association	September 2015 December 2015
21	D.Mukesh N.Vignesh Keshav P.Harihara Vignesh	12P213 12P228 12P209	Zonal Level Handball	III Place	Anna University, Chennai	September 2015
22	M.Kishor Kumar	12P110	Zonal Level Volleyball SNR Trophy Volleyball	IV Place IV Place	Anna University, Chennai SREC, Coimbatore	September 2015 August 2015
23	R.R.Raakesh	15P642	Inter Zonal Chess	III Place	SA Engineering College	09.09.2015
24	N.Adhavraj Nithin Balaji	15P602 15P636	Maths Quiz	III Place	PSG Tech	November 2015

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
25	B.Karthik E.Sathyan	14P616 14P644	CIT Trophy	IV Place	Coimbatore Institute of Technology, Coimbatore	February 2016
26	G.Siddarth	14P646	SNR Trophy Basket ball Anna University Zonals Basketball CIT Trophy Basketball Sri Krishna Trophy, Basketball	I Place I Place I Place III Place	Sri Ramakrishna College, Coimbatore KPR Institute of Technology Coimbatore Institute of Technology, Coimbatore Sri Krishna Engg. College, Coimbatore	August 2015 September 2015 March 2016 February 2016
27	K.Vaibhav G.Siddarth	14P653 14P656	SREC Trophy Basket Ball	I Place	Sri Ramakrishna Engineering College, CBE	16.07.2015
28	C.Vishnu Vardhan	14P922	PSG Tech Mini Marathon	13 th Place	PSG Tech	March 2016
29	S.Balakrishnan A.Manikandan	13P608 13P622	Pneumo '16	II Place	PSG Tech	March 2016
30	R.Vignesh	14P920	Forum '16	II Place	PSG Tech	February 2016
31	S.Manikandan	13P623	Zonal Football Centies Football CIT Football Trophy Coimbatore 'B' Division Winners	Winners Winners Winners Winners	Anna University, Chennai PSG Tech Coimbatore Institute of Technology, Coimbatore Coimbatore District Football Association	August 2015 August 2015 March 2016 27.12.2015
32	S.Mohanraj A.Tamilmani	13P626 13P651	Forum '16 Observer	I Place	PSG Tech	February 2016
33	R.Sundar J.Shivaraman	14P919 13P643	Build Your Imagination Kriya '16	I Place	PSG Tech	February 2016
34	R.Asha Priyanga	11P604	Alumni Award	All rounder	PSG Tech	March 2016
35	S.Balaji	11P606	Best Outgoing Student Treasure hunt	Tech day I Place	PSG Tech PSG Tech	March 2016 September 2015
36	S.Deepak	11P610	Treasure hunt	I Place	PSG Tech	September 2015

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
37	V.Viswadeep	11P652	Basketball Hostel council	I Place	PSG Tech	March 2016
38	M.Prakash E.Krishna Kumar	11P634 11P625	Cleanest room	I Place	PSG Tech	March 2016
39	V.Shanthosh	12P917	Baja Bhais	IX Place	SAE India	March 2016
40	P.Chandrasekaran S.Deepak	11P609 11P610	Proficiency Award	I Place	PEA & SME, PSG Tech	March 2016
41	C.Bala gurunathan	11P605	Proficiency Award	II Place	PEA & SME, PSG Tech	March 2016
42	R.Asha Priyanga	11P604	Proficiency Award	III Place	PEA & SME, PSG Tech	March 2016
43	Balsami Purushothaman	15MP04	Mini Marathon (10 km)	Bronze Medal	PSG Tech	28.02.2016
44	E.Naveen	14MP34	Muthamizh Mandram Award for Debate Yuvashree Kala Bharathi Award for Debate	Award	Muthamizh Mandram, Salem Yuva Kendra, Madurai	11.12.2015
45	S.Saravana Prabhu	14MJ17	Best Outgoing Student	Tech day	PSG Tech	14.03.2016
46	B.Ramasubramanian	14MJ13	Best All Rounder	Tech day	PSG Tech	29.02.2016
47	R.Santhosh	15PV05	Centies Volley ball	II Place	EBET, Erode	February 2016
48	N.Bhavana B.Mhalakshmi	15PV01 15PV03	Women of Tech	II Place	PSG Tech	March 2016
49	S.M.Bairavi	14PV03	Alumni Coordinator	All Rounder	PSG Tech	March 2016
50	S.Arun Kumar	14PV31	Tech Day	Out Standing Student	PSG Tech	March 2016

4.6. Final year project work

4.6.1. UG project (regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
1	12P102	U.P.Anandharupan	Design of fins for transverse fin heat exchanger	Mr.R.Rajamani	Asian Cooling Systems, Coimbatore
2	12P103 12P106 12P225 13P436	Anushkrishna J Ramdass S.Haribhaskar M.Sivadharson B.Vignesh	Analysis of the influence of different types of TiAlN coated inserts on surface roughness, tool wear and material removal rate in turning of inconel 600 Alloy	Mr.M.R.Pratheesh Kumar	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
3	12P104 12P210 12P224	N.Asok Ram U.K.Kamalesh M.G.Sidhu Mahabalistan	Hardfacing on wedge guide rib and body guide rib of gate valve using automated only fuel spraying	Dr.S.Elangovan	L & T Valves Limited, Chennai
4	12P105 12P127 12P226	G.Dhananzhehiyan S.Shrinivas Raghul R.M.Suresh Krishna	Finite element analysis and fabrication of composite leaf spring	Mr.S.P.Leo Kumar Mr.B.Arun Karthik	-
5	12P107 12P121 12P129	E.Jayabharathi S.Rahul E.Siranjeevi	Modelling and parametric optimization of ultrasonic plastic welding process using RSM-GA integration technique	Mr.K.Anand	-
6	12P108 12P114 12P228 13P402	J.Jebin K Mohamed Ismail N.Vignesh Keshav S.M.MohamedFaizal	Investigation on high speed drilling of Ti-6Al-4V alloy	Dr.V.Krishnaraj	-
7	12P109 12P110 12P207 13P403	M.S.Kiran Lara M.Kishor Kumar S.Balaji S.Sumanesh	Design and development of recumbent type Indian tricycle	Mr.R.Rajesh	-
8	12P111 12P130 12P227 12P229	S.Logavigneshwaran G.Sriram M.Vignesh T.Vigneshwaran	Productivity improvement in sand casting through automation and lean techniques	Mr.R.ArunPrakash	Craftsman Automation, Coimbatore
9	12P112 12P115	P.Madhumithran S.S.Mouneesh Raja	Design of automotive planetary gearbox for hybrid electric vehicle	Mr.M.R.Pratheesh Kumar	Cloud Tews, Coimbatore
10	12P113 12P209 13P432 13P437	A.Manoj P.Hari Hara Vignesh P.Krishna Vignesh P.Vishnuvardhan	Design and development of multipurpose wheel chair	Dr.M.Senthil kumar	-
11	12P116 12P120 12P131 12P202	R.Muhilan S.Raghul S.Sutharsan G.Abilash	Development and analysis of tea leaf fibre composite	Dr.S.R.Devadasan	-
12	12P117 12P208 13P407	J.Nandhakumar V.Govindharaj S.Vinothkumar	Inspection of balancing ring using machine vision system	Mr.R.Rajamani	-
13	12P118 12P211 12P230 13P435	S.Narayanan P.Mahi R.Vishnu RamMohan K.Prakash	Ergonomic evaluation of manual material handling task in a manufacturing industry	Dr.G.Madhan Mohan	-
14	12P119 12P201 12P212 13P406	K.Prabhu J.Abishek D.Manoj R.K.Varunadithya	High speed trimming of CFRP using router tool and online monitoring of tool life	Dr.V.Krishnaraj	-
15	12P122 12P124	T.Rajesh Kumar K.J.SaiAbilash	Numerical study on joining cylindrical flat metallic	Mr.J.Pradeep Kumar	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
	12P125 12P133	N.Sampath Kumar G.Viswanathan	specimens by ultrasonic vibrations		
16	12P123 12P206 12P219 13P405	K.Ramalingam S.BalaMurugan S.P.Prem Kumar P.Varatharaj	Design and fabrication of forming die for impeller vanes of a submersible pump	Dr.S.Saravanan	Mahendra Pumps (P) Limited, Coimbatore
17	12P132 12P203	T.Udhaya Kumar S.Amir Sohail	Optimisation of material removal rate of AlSiTmg/WC/g using wire cut electrical discharge machining process	Dr.K.Somasundara Vinoth	-
18	12P204 12P214 12P216 12P217	T.K.Aravindh Kumar K.N.Mukhil S.Navin Kumar M.Prasad	Optimisation of cutting parameters for cutting forces, cutting temperature and surface roughness in face milling of Al-7010 alloy using RSM	Mr.K.Anand	-
19	12P205	P.Arun Kumar	Increasing the productivity and performance of a steel bar and wire rod rolling process	Mr.S.P.Leo Kumar Mr.B.ArunKarthik	Lal Steels Private Limited, Palakkad
20	12P213 12P222 12P223 12P128	D.Mukesh M.Shanthosh S.M.Shibi M.Siddharthan	Development of spur gear using Al-SiC-WC composite	Dr.M.Senthil kumar	-
21	12P215 13P401 13P431 13P433	K.Naveenkumaran M.Karuppusamy A.Kishore Kumar B.Nagarajan	Experimental analysis of petrol hydrogen engine	Dr.K.Kannan Mr.N.Krishna Kumar	-
22	12P218 12P220 12P221 13P404	M.Praveen R.Raaghav E.RagulGowtham D.Vaidhyaprasath	Experimental investigation to study the forming limit of Al6061 sheet metal by incremental sheet metal forming	Dr.S.Elangovan	-

4.6.2. UG project (Sandwich)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
1	11P603 11P613 11P644 11P650	K.Arun Kannan V.K.Elango S.A.Siva Sooryan K.Vijay Krishna	Parametric analysis of electric discharge machining (drilling) on carbon fiber reinforced plastic	Dr.V.Krishnaraj	-
2	11P604 11P605 11P625	R.Asha Priyanga C.Bala Guru Nathan E.Krishnakumar	Manufacture of functionally coated component	Dr.K.Somasundara Vinoth	PSG IAS, Coimbatore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
	11P645	P.Sreniivasan			
3	11P606 11P608 12P917	S.Balaji S.Chachin V.Shantosh	Studies on flow visualisation in a syringe and interaction of blood and drug flow during intravenous injection process	Mr.M.Madhu	PSG IMSR, Coimbatore
4	11P609 11P614 11P646 12P923	P.Chandra Sekaran M.Gokul P.Sudharsan K.Ramalingam	Application of value stream mapping technique in the production of power take-off gearbox	Dr.S.R.Devadasan	Alpha Drives
5	11P610 11P619 11P626 11P652	S.Deepak S.Jayamurugan M.Krishnakumar V.Viswadeep	Studies on application of brain-computer interface for quantification of pain using electro encephalogram	Mr.M.Madhu	PSG IMSR
6	11P612 12P901 12P908 12P914	A.Dinesh S.Shafath Ahamed S.Gowtham B.Sathishkumar	Investigations on the effect of cutting conditions on surface roughness and circularity in drilling of A356 Aluminum Alloy	Mr.S.P.Leo kumar	-
7	11P616 11P628 11P632	A.Gopal Ganesh S.Madhan S.A.Naveenkrishnan	Re-design and fabrication of silk saree polishing machine	Dr.P.Sadagopan	Gem Equipments Limited, Coimbatore
8	11P627 11P631	A.Leo Joison R.Naveen	Implementation of lean manufacturing in the production of phase selector switch (PS63)	Dr.S.R.Devadasan	Salzer Electronics Limited, Coimbatore
9	11P618 11P624 11P643 12P921	K.Jagadishkumar S.V.Koushik S.Sibi Vishvak C.M.Anbarasan	Development of light weight composite gears for automobile	Dr.P.Sadagopan	PSG IAS, Coimbatore
10	12P904 12P909 12P911 12P913	M.Deepak L.Vignesh D.Pranesh Ram M.Santhosh Kumar	Prediction of pull-out strength in ultrasonic insertion using artificial neural network	Mr.K.Anand	-
11	11P637 11P640 12P903 12P906	S.Ramgopal T.Ravisankar T.Rajiv S.Ashwanth	Visualization of sand movement during jolting, squeezing and simultaneous jolting and squeezing actions	Dr.V.Jaiganesh	-
12	11P601 11P623 12P910	S.Aravindh T.Kirubhakaran D.Amarnath	Improving productivity using lean tools	Mr.S.Sajin Calvin	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
13	11P602 11P630 11P634 12P924	A.Arun F.Mohamed Nawaz Khan M.Prakash R.Saravanan	Investigation on hot cracking sensitivity of AA7075 alloy during GTAW	Dr.S.Elangovan	Santha Engineering Products, Coimbatore
14	11P611 11P615 11P638 12P907	K.Dhivaakar R.Gokul Raj T.Ramprasad K.Satheesh Pandian	Investigation on the failures of lead free electronic packages subjected to thermal cyclic loads	Dr.S.Saravanan	Aries Biomed Technologies Pvt Limited, Coimbatore
15	11P617 11P641 12P918 12P922	R.Gopi Prasanth R.Sampath Kumar J.Khaarthik K.Sivachandran	Executive support system on league supply chain performance measurement	Dr.S.R.Devadasan	-
16	11P621 11P635 11P647	R.Kameshwaranath P.Prasanna Kumaar R.Thasarathan	Measurement of roundness error using algorithm	Mr.M.R.Pratheesh Kumar	Tespa Calibration Pvt. Ltd., Coimbatore
17	11P622 12P920	J.Kaushik G.Baskar	Friction stir welding of zirconia reinforced aluminium metal matrix composite	Dr.M.Senthil kumar	Ultimate Alloys, Coimbatore
18	11P629 11P636 11P648	V.Manivannan M.Rajesh D.Vignesh	Productivity improvement in open-well submersible pump assembly line	Dr.K.Somasundara Vinoth	CRI Pumps, Coimbatore
19	11P642 12P915 12P916	D.Shankar R.Kannadasan C.Jaisankar	Design and fabrication of tomato storage device using U-V technique	Dr.K.Kannan	Krishna Drives, Coimbatore
20	11P651	C.Vimalesh Raja	Assembly line balancing with ergonomics paradigm	Mr.S.Sajin Calvin	Archana Industries, Coimbatore
21	12P905 12P912	M.Udhayakumar S.Murali	Prevalence of awkward posture and consequent discomforts among workers in drilling machines	Mr.P.Ashok	-

4.6.3. PG project

4.6.3.1. Manufacturing Engineering

S.No	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
1	14MP01	C.Govindha rajan	Ergonomic evaluation of working posture with heart rate variability monitoring in radial drilling machine	Dr.G.Madhan Mohan	-

S.No	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
2	14MP02	S.Jaya chandran	Modelling of ultrasonic insertion process using artificial neural network and conventional regression analysis	Dr.S.Elangovan	-
3	14MP03	Jose V Eapen	Experimental study on resistance spot welding of AISI 304 stainless steel	Mr.J.Pradeep Kumar	-
4	14MP04	M.Krishnan	Proof of concept of industrial equipment remote monitoring using industrial internet of things (IIOT)	Mr.M.Madhu / Mr.R.Rajesh	Maxbyte Technologies, Coimbatore
5	14MP05	Lalu P Skaria	Improvement of part accuracy for wire-electric discharge grinding machined component	Dr.V.Krishnaraj	-
6	14MP06	Mandapalli Yadidya Dutt	Experimental analysis on electrochemical machining of haste alloy	Mr.S.P.Leo Kumar	-
7	14MP07	P.Manojkumar	Statistical analysis of the tensile and microhardness properties of friction stir welded AA6061/10 vol % SiC composite	Mr.M.R. PratheeshKumar	-
8	14MP08	Mohamed Abdul Salam	Simulation and analysis of flow through gating systems for green sand casting process	Dr.V.Jaiganesh	-
9	14MP09	P.U.Natarajan Deepu	Production planning and control of air compressor manufacturing system	Dr.S.R.Devadasan	Frank Technology Pvt. Ltd., Coimbatore
10	14MP10	S.Sakthivel	Experimental studies on improvement of machinability and tool life during machining of grey cast iron	Dr.V.Jaiganesh	-
11	14MP11	Subaham Sharma	Comparative analysis on dynamic impact (crash) testing of automotive materials	Dr.P.Sadagopan	-
12	14MP12	A.K.Udhaya selvakumar	Experimental investigation on composite glass cutting in abrasive water jet machine	Dr.K.Kannan	-
13	14MP31	R.L.Balaji	Experimental study on electrical discharge machining of monel metal	Mr.J.Pradeep Kumar	-
14	14MP32	G.Deepak	Increase productivity of the cable manufacturing by increasing the availability of the machine	Dr.R. Gandhinathan	Magna Closures Automotive Pvt. Ltd., Coimbatore

S.No	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
15	14MP33	A.Hari Baskar	Microstructure and mechanical characterization of friction stir welding aluminium alloy 6061-T6 and AISI 304 stainless steel	Mr.R.Rajamani	-
16	14MP34	E.Naveen	Influence of chromium carbide addition on the electrical discharge machining of aluminium metal matrix composite	Dr.K.Somasundara Vinoth	-
17	14MP35	P.Rajdev	Flow manufacturing in post curing process of tyres	Mr.K.Anand	TVS Srichakra Limited, Madurai
18	14MP36	R.Thulasi Raman	Occupational heat stress evaluation and heart rate variability monitoring among foundry workers	Dr.G.Madhan Mohan	-

4.6.3.2. Product Design and Commerce

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
1	14MJ02	K.Dinesh	Attribute structuring method for part traceability in the product life cycle	Dr.G.Madhan Mohan	Mahindra & Mahindra Ltd., Chennai
2	14MJ03	M.Dinesh	Deformation of thin wall component during clamping and its influence on the roundness	Dr.S.Saravanan	Larsen & Toubro Limited, Coimbatore
3	14MJ04	S.Gokulranga rajan	Design and development of orthopaedic vehicle for indoor and outdoor transportation	Mr.R.Rajesh	-
4	14MJ05	E.Jayakumar	Proof of concept of product development performance analytics	Dr.S.Saravanan	Maxbyte Technologies Coimbatore
5	14MJ06	R.Kalaimani	Investigation on the effect of wood concentration on wood-recycled ABS polymer matrix composite material	Mr.S.P.Leo Kumar	-
6	14MJ08	P.Karthik	Analysis of fuselage aircraft stiffener panel to resist deformation	Mr.P.Ashok	-
7	14MJ09	V.Manikandan	Tribological behavior of aluminium 356/WC metal matrix composite	Dr.K.Somasundara Vinoth	-
8	14MJ12	R.Pawnkumar	Effect of rice husk ash and SiC particles on hardness and	Dr.M.Senthil kumar	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
			microstructure of friction stir welded MMC's		
9	14MJ13	B.Rama Subramanian	Proof of concept for integration of statistical tools with manufacturing process management	Mr.R.Arun Prakash	-
10	14MJ14	P.Ruthuresh Kumar	Design and development of automatic contamination remover for raw cotton (KAPPAS) cleaning process	Dr.K.Kannan	Sritex Hi-Tech Machines, Coimbatore
11	14MJ15	S.Samraj	Data linkage mechanism for better CAD and CAE data exchange management	Mr.R.Rajamani	Mahindra & Mahindra Ltd., Chennai
12	14MJ16	P.Sarathkumar	A study on effect of geometry on sloshing behaviour of liquid in a fuel tank	Mr.R.Rajamani	-
13	14MJ17	S.Saravana Prabhu	Configurable BOM management process template based approach	Dr.R.Gandhinathan	Mahindra & Mahindra Ltd., Chennai
14	14MJ18	A.Thangadurai	Failure analysis of boring and roaming operation	Dr.K.Prakasan	Larsen & Toubro Ltd., Coimbatore
15	14MJ19	K.R.Vijoy	Design of automotive interior door trim with bio-degradable material and moulding analysis	Mr.J.Pradeep Kumar	Pioneer Design & Engineering Pvt. Ltd., Chennai
16	14MJ31	D.Anish	Improving customer experience of water purifier using design thinking methodology	Mr.T.Anantharaj	Maxbyte Technologies Coimbatore
17	14MJ32	K.Rambabu	Design and development of standing wheel chair	Mr.R.Rajesh	-

4.6.3.3. Virtual Prototyping and Digital Manufacturing

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
1	14PV01	K.Ashok	Virtual reality training simulator for learning craniotomy surgical operation	Mr.R.Arun Prakash	-
2	14PV02	V.Aswin	Virtual training of CNC operations	Mr.T.Anantharaj	-
3	14PV03	S.M.Bairavi	Creation of an interactive VR platform using leap motion controller for training in tympanoplasty surgery	Mr.M.R. PratheeshKumar	-
4	14PV04	M.Guna	Virtual interior designing and interaction	Mr.R.Arun Prakash	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
5	14PV05	G.Kalaimathi	Physics based simulation of intravenous injection process	Mr.M.Madhu	-
6	14PV06	R.Kaliammal	Creation of user interactions for a virtual intravenous injection process trainer	Mr.M.Madhu	-
7	14PV07	D.Lokesh Kumar	Development of an interactive virtual touch whiteboard system using WIIMOTE	Mr.T.Anantharaj	-
8	14PV08	S.Mahesh Babu	Product and process flow visualization of sheetmetal operation in a web page	Mr.T.Anantharaj	-
9	14PV09	M.Ravikumar	Virtual training on spinal cord tumor removal treatment using WIIMOTE and data glove	Mr.T.Anantharaj	-
10	14PV10	S.Siva Kavin	Creation of virtual environment for Arc Welding Simulation using WIIMOTE	Mr.R.Arun Prakash	-
11	14PV11	S.Sunderraja	Performance analysis of drowsiness detection system in automobiles at moderate level	Mr.R.Rajamani	-
12	14PV12	S.Swaroop anand	Proof of concept of augmented reality in product service	Mr.M.R. PratheeshKumar	Maxbyte Technologies, Coimbatore
13	14PV31	S.Arunkumar	Visualisation of flow interaction between drug and blood in human vein	Mr.M.Madhu	-

4.6.3.4. Production Engineering (Part Time)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
1	13MP61	J.Chandra Prasath	Experimental Investigation of the effect of process parameters and tool end shapes on response parameter in machining Inconel 625 using EDM process	Mr.M.R.Pratheesh Kumar	-
2	13MP62	S.Govindaraj	Design and Analysis of Horn for Ultrasonic Insertion Process	Mr.K.Anand	-
3	13MP64	V.Jeya Raman	Productivity improvement in Main assembly process of wind turbine gearbox	Mr.R.Rajamani	-
4	13MP66	S.Nithinkumar	Capacity Improvement in Tandem Master Cylinder Machining Cell	Mr.M.Madhu	-
5	13MP67	U.Prasad	Multicavity optimization of castings using methoding and simulation	Dr.K.Somasundara Vinoth	-
6	13MP70	S.Siddharth	Design and Development of oil strainer assembly automation unit with PLC control system	Mr.M.Madhu Mr.N.Krishna Kumar	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry / Institute associated
7	13MP71	D.Suresh	Design and Development of Hydraulic baling Press	Mr.C.Vigneswaran	-

4.7. Competitive examinations

S.No.	Exam	No. of students appeared	Students qualified	
			Roll. No.	Name
1	GATE	41	12P102	U.P.Anandha Rupan
			12P104	N.Asok Ram
			12P108	J.Jebin
			12P109	M.S.Kiranlara
			12P118	S.Narayanan
			12P122	T.Rajesh Kumar
			12P124	K.J.Sai Abilash
			12P125	N.Sampath Kumar
			12P206	S.Bala Murugan
			12P213	D.Mukesh
			12P214	K.N.Mukhil
			12P216	S.Navin Kumar
			12P224	M.G.Sidhu Mahabalistan
			12P227	M.Vignesh
			12P229	T.Vigneshwaran
			13P402	S.M.Mohamed Faizal
			13P437	P.Vishnu Vardhan
			11P612	A.Dinesh
			11P617	R.Gopi Prasanth
			11P618	K.Jagadish Kumar
			11P625	E.Krishna Kumar
			11P648	D.Vignesh
			12P905	M.Udhaya Kumar
12P908	S.Gowtham			
12P909	L.Vignesh			
14MJ04	S.Gokul Rangarajan			
14MJ05	E.Jayakumar			
14MJ13	B.Rama Subramanian			
14MJ19	K.R.Vijay			
2	GRE	6	12P104	N.Asok Ram
			12P127	S.Shrinivas Raghul
			12P205	P.Arun Kumar
			12P210	U.K.Kamalaesh
			11P638	T.Ramprasad
			11P650	K.Vijay Krishna
3	CAT	17	12P104	N.Asok Ram
			12P124	K.J.Sai Abilash
			12P128	M.Siddharthan
			12P133	G.Viswanathan
			12P218	M.Praveen

S.No.	Exam	No. of students appeared	Students qualified	
			Roll. No.	Name
			11P609	P.Chandrasekaran
			11P626	M.Krishna Kumar
			11P632	S.A.Naveen Krishnan
			11P636	M.Rajesh
			11P651	C.Vimalesh Raja
4	CMAT	1	11P627	A.Leo Joison
5	MAT	1	11P627	A.Leo Joison
6	CEED	1	12P209	P.Harihara Vignesh
7	XAT	2	11P626	M.Krishna Kumar
			12P133	G.Viswanathan
8	IELTS	3	11P614	M.Gokul
			12P210	U.K.Kamalaesh
			14MP34	E.Naveen
9	TOEFL	2	12P103	Anush Krishna J Ramdass
			12P104	N.Asok Ram
10	GMAT	1	12P103	Anush Krishna J Ramdass
11	GERMAN	1	12P210	U.K.Kamalaesh

4.8. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Accenture, Bangalore	13	12P114	Mohamed Ismail K	3.40
			12P206	Bala Murugan S	
			12P209	Harihara Vignesh P	
			12P214	Mukhil K N	
			12P216	Navin Kumar S	
			11P608	Chachin S	
			11P621	Kameshwaranath R	
			11P631	Naveen R	
			11P634	Prakash M	
			11P642	Shankar D	
			11P645	Sreniivasan P	
			12P920	Baskar G	
11P651	Vimalesh Raja C				
2	Brakes India Private Limited, Chennai	2	12P223	Shibi S M	2.88
			11P638	Ram Prasad T	
3	Cognizant, Chennai	17	12P105	Dhananchezhiyan G	3.35
			12P110	Kishor Kumar A	
			12P122	Rajesh Kumar T	
			12P125	Sampath Kumar N	
			12P129	Siranjeevi E	
			12P202	Abilash G	
			11P624	Koushik S V	
			11P627	Leo Joison A	
11P630	Mohamed Nawaz Khan				

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
				F	
			11P644	Siva Sooryan S A	
			11P650	Vijay Krishna K	
			14MJ09	Manikandan V	
			14MJ18	Thangadurai A	
			14MJ31	Anish D	
			14MP02	Jayachandran S	
			14MP11	Shubham Sharma	
			14PV05	Kalaimathi G	
4	Ford India Pvt. Ltd., Chennai	1	11P652	Viswadeep V	5.50
5	Gilbarco Veeder Root India Pvt. Ltd., Mumbai	5	12P124	Sai Abilash K J	3.75
			11P629	Manivannan V	
			11P643	Sibi Vishvak S	
			11P646	Sudharsan P	
			11P647	Thasarathan R	
6	Hyundai Motor India Ltd., Chennai	4	12P219	Prem Kumar S P	6.0
			12P222	Shanthosh M	
			14MJ17	Saravana Prabhu S	
			14PV31	Arun Kumar S	
7	Infosys Technologies Ltd., Bangalore	6	12P106	Hari Baskar S	3.25
			12P112	Madhu Mithiran P	
			12P128	Siddharthan M	
			13P431	Kishore Kumar A	
			11P602	Arun A	
			11P628	Madhan S	
8	Infosys Technologies Ltd., Bangalore	2	14MP31	Balaji R L	3.50
			14PV01	Ashok K	
9	IBM India Pvt. Ltd., Bangalore	5	12P108	Jebin J	3.35
			12P915	Kannadasan R	
			14MP04	Krishnan M	
			14PV12	Swaroopanand S	
			11P622	Kaushik J	
10	ITC Infotech Limited, Bangalore	1	12P225	Sivadharson M	3.30
11	ITC ABD Ltd., Guntur	1	11P606	Balaji S	8.50
12	Latent View Analytics, Chennai	1	12P103	Anush Krishna J Ramdass	4.50
13	Larsen & Toubro Ltd., Mumbai	4	12P111	Logavigneshwaran S	4.80
			12P130	Sriram G	
			11P604	Asha Priyanga R	
			11P609	Chandra Sekaran P	
14	Laxmi Machine Works, Coimbatore	1	11P625	Krishnakumar E	1.80
15	Mu Sigma Business	1	11P626	Krishna Kumar M	4.50

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
	Solutions, Bangalore				
16	Pricol Technologies Ltd., Coimbatore	1	12P924	Saravanan R	2.16
17	Royal Enfield, Chennai	1	12P115	Mouneeshraja S S	3.60
18	Sundram Fasteners Limited, Chennai	1	12P102	Anandha Rupan U P	3.25
19	Solvanni Tech. India Pvt. Ltd., Bangalore	2	12P121	Rahul S	3.15
			12P227	Vignesh M	
20	Tata Motors Limited, Pune	4	12P104	Asok Ram N	5.75
			11P610	Deepak S	
			11P636	Rajesh M	
			11P648	Vignesh D	
21	Tata Consultancy Services Limited., Chennai	7	12P113	Manoj A	3.30
			12P131	Sutharsan S	
			12P133	Viswanathan G	
			12P220	Raaghav R	
			13P405	Varatharaj P	
			11P603	Arun Kannan K	
			12P901	Shafath Ahamed S	
22	Triad Software Pvt. Ltd., Chennai	2	12P228	Vignesh Keshav N	3.70
			11P605	Bala Guru Nathan C	
23	Triad Software Pvt. Ltd., Chennai	1	14MJ13	Rama Subramanian B	4.00
24	Tata Consultancy Services Limited., Chennai	6	14MP05	Lalu P Skaria	3.50
			14MP06	Yadidya Dutt M	
			14MP07	Manojkumar P	
			14MP08	Mohamed Abdul Salam J	
			14MP36	Thulasi R	
			14PV03	Bairavi S M	
25	Vadanta Limited, Thoothukudi	1	12P123	Ramalingam K	4.50
26	Wells Fargo, Bangalore	1	11P635	Prasanna Kumar P	5.50

4.9. Industrial training and project

4.9.1. Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	TVS Motor India Private Limited, Hosur	55, UG-3 rd Sem	06.09.2015	Vehicle Assembly
2	PSG Foundry Division, Neelambur	12, PG-4 th Sem	16.09.2015	Production
3	Bagavathi Precision Products, Coimbatore	57, UG-8 th Sem	21.03.2016	Press Tools
4	Ashok Leyland Phase II, Hosur	54, UG-4 th Sem	26.02.2016	Assembly Section

S.No.	Name of company	No. of students & course	Period	Area of training
5	Wendt India Limited, SIPCOT, Hosur	54, UG-4 th Sem	26.02.2016	Manufacturing Section
6	HAAS Automation Limited, Factory Outlet, Coimbatore	15, PG-4 th Sem	24.02.2016	CNC Machine

4.9.2. Short term training

S.No.	Name of company	No. of students & course	Period	Area of training
1	LAPP India, Bangalore	2 UG-8 th Sem	11.05.2015 - 24.07.2015	Optimization of cycle time in insulation
2	Larsen & Toubro, Coimbatore	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Optimization using vericut software
3	Ambarish Automation, Coimbatore	6 UG-8 th Sem	11.05.2015 - 24.07.2015	Fixture design for internal part of clutch plate assembly
4	Bull Machines Private Limited, Coimbatore	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Implementation of value stream mapping in front end loader
5	Sail, Salem	3 UG-8 th Sem	11.05.2015 - 24.07.2015	Pass schedule determination at hot roll mill
6	Balavigna Weaving Mills, Dindigul	3 UG-8 th Sem	11.05.2015 - 24.07.2015	Optimization process in weaving industry
7	Rane Limited, Pondicherry	4 UG-8 th Sem	11.05.2015 - 14.07.2015	Analysis on steering column assembly
8	Harihar Alloys, Viralimalai	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Optimization on furnace oil consumption
9	Ucal Fuel Systems Ltd., Chennai	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Rejection reduction
10	Bull Machines, Chindamanipudur	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Value stream mapping
11	BHEL, Ranipet	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Time study and welding process automation
12	Roots Polycraft, Kanuvai, Coimbatore	2 UG-8 th Sem	11.05.2015 - 24.07.2015	Design and fabrication of gauge for wheel rim mn&v pulley
13	Tata Motors, Coimbatore	3 UG-8 th Sem	11.05.2015 - 24.07.2015	Press Shop, paint shop and Assembly line
14	L&T Ship building, Chennai	1 UG-8 th Sem	11.05.2015 - 24.07.2015	Exfoliation in A1-5083 H116
15	SAIL, Rourkela Steel Plant, Orissa	3 UG-8 th Sem	11.05.2015 - 24.07.2015	Development of TTT diagram for CDA-47
16	Kusters Calico Machinery Pvt Ltd., Vadodhara	4 UG-8 th Sem	11.05.2015 - 24.07.2015	Design Modifications of washer range
17	Caterpillar, Thiruvallur	2 UG-8 th Sem	11.05.2015 - 24.07.2015	Process failure mode and effect analysis study on line
18	IIT, Guwahati	1 UG-8 th Sem	11.05.2015 - 24.07.2015	Bio-Mechanics
19	University of Leeds,	1	11.05.2015 -	Nanomaterials (Composite)

S.No.	Name of company	No. of students & course	Period	Area of training
	United Kingdom	UG-8 th Sem	24.07.2015	
20	Lucas TVS, Chennai	1 UG-8 th Sem	11.05.2015 - 24.07.2015	Process optimization
21	DMW CNC Solutions India Private Limited, Erode	3 UG-8 th Sem	11.05.2015 - 24.07.2015	Fixture design
22	TAFE Motors Private Limited, Bangalore	5 UG-8 th Sem	11.05.2015 - 24.07.2015	Tractor Assembly

4.9.3 Project work and Internships

S.No.	Name of company	No. of students & course	Period	Area of work
1	Asian Cooling Systems, Coimbatore	1 UG – 8 th Sem	01.12.2015 - 30.04.2016	Design optimization of transverse extended surface heat exchanger
2	Larsen & Toubro Valves Limited, Chennai	3 UG – 8 th Sem	07.12.2015 - 25.04.2016	Hardfacing on wedge guide and body guide rib region of gate valve using oxy fuel automation process
3	Craftsman Automation Coimbatore	4 UG – 8 th Sem	21.12.2015 - 25.04.2016	Productivity improvement through automation and other industrial engineering technique
4	Cloud Tews, Coimbatore	2 UG – 8 th Sem	21.12.2015 - 09.04.2016	Design of automotive planetary gear box for hybrid electric vehicle
5	Mahendra Pumps (P) Limited, Coimbatore	4 UG – 8 th Sem	07.12.2015 - 31.03.2016	Design and fabrication of die for impeller vanes
6	Lal Steels Private Limited, Palakkad	1 UG – 8 th Sem	21.12.2015 - 25.04.2016	Increasing productivity and performance of steel bar rolling process
7	Santha Engineering Products, Coimbatore	4 UG (SW) 10 th Sem	11.12.2015 - 30.04.2016	Investigation on hot cracking sensitivity of AA7075 alloy during GTAW
8	PSG IAS, Coimbatore	4 UG (SW) 10 th Sem	02.12.2015 - 30.04.2016	Manufacture of functionally coated component
9	PSG IMSR, Coimbatore	3 UG (SW) 10 th Sem	02.12.2015 - 30.04.2016	Studies on flow visualisation in a syringe and interaction of blood and drug flow during intravenous injection process
10	Alpha Drives, Coimbatore	4 UG (SW) 10 th Sem	09.12.2015 - 30.04.2016	Application of value stream mapping technique in the production of power take-off gearbox
11	Aries Biomed Technologies Private Limited, Coimbatore	4 UG (SW) 10 th Sem	30.11.2015 - 30.04.2016	Investigation on the failures of lead free electronic packages subjected to thermal cyclic loads
12	Gem Equipments Limited, Coimbatore	3 UG (SW) 10 th Sem	21.12.2015 - 30.04.2016	Re-design and fabrication of silk saree polishing machine

S.No.	Name of company	No. of students & course	Period	Area of work
13	PSG IAS, Coimbatore	4 UG (SW) 10 th Sem	02.12.2015 - 30.04.2016	Development of light weight composite gears for automobile
14	TESPA Calibration Pvt. Ltd., Coimbatore	3 UG (SW) 10 th Sem	22.12.2015 - 30.04.2016	Measurement of roundness error using algorithm
15	Ultimate Alloys, Coimbatore	2 UG (SW) 10 th Sem	29.12.2015 - 30.04.2016	Friction stir welding of zirconia reinforced aluminium metal matrix composite
16	PSG IMSR, Coimbatore	2 UG (SW) 10 th Sem	02.12.2015 - 30.04.2016	Studies on application of brain-computer interface for quantification of pain using electro encephalogram
17	Salzer Electronics Limited, Coimbatore	2 UG (SW) 10 th Sem	01.12.2015 - 30.04.2016	Implementation of lean manufacturing in the production of phase selector switch (PS63)
18	CRI Pumps, Coimbatore	3 UG (SW) 10 th Sem	17.12.2015 - 30.04.2016	Productivity improvement in open-well submersible pump assembly line
19	Krishna Drives, Coimbatore	3 UG (SW) 10 th Sem	16.12.2015 - 30.04.2016	Design and fabrication of tomato storage device using U-V technique
20	Archana Industries, Coimbatore	1 UG (SW) 10 th Sem	29.12.2015 - 30.04.2016	Assembly line balancing with ergonomics paradigm
21	Maxbyte Technologies, Coimbatore	1 PG – 4 th Sem	15.12.2015 - 30.04.2016	Proof of concept of industrial equipment remote monitoring using industrial internet of things (IIOT)
22	Frank Technology Pvt. Ltd, Coimbatore.	1 PG – 4 th Sem	20.12.2015 - 20.05.2016	Production planning and control of air compressor manufacturing system
23	M/s Magna Closures Automotive Pvt. Ltd.	1 PG – 4 th Sem	04.01.2016 - 31.03.2016	Increase productivity of the cable manufacturing by increasing the availability of the machine
24	TVS Srichakra limited, Madurai	1 PG – 4 th Sem	4.01.2016 - 30.04.2016	Flow manufacturing in post curing process of tyres
25	Mahindra & Mahindra Ltd., Chennai	1 PG – 4 th Sem	06.01.2016 - 31.05.2016	Attribute structuring method for part traceability in the product life cycle
26	Larsen & Toubro Limited, Coimbatore.	1 PG – 4 th Sem	12.12.2015 - 30.04.2016	Deformation of thin wall component during clamping and its influence on the roundness
27	Maxbyte Technologies, Coimbatore.	1 PG – 4 th Sem	14.12.2015 - 30.04.2016	Proof of concept of product development performance analytics
28	Sritex Hi-Tech Machines, Coimbatore.	1 PG – 4 th Sem	21.12.2015 - 15.04.2016	Design and development of automatic contamination remover for raw cotton (KAPPAS) cleaning process
29	Mahindra & Mahindra Ltd., Chennai	1 PG – 4 th Sem	06.01.2016 - 31.05.2016	Data linkage mechanism for better CAD and CAE data

S.No.	Name of company	No. of students & course	Period	Area of work
				exchange management
30	Mahindra & Mahindra Ltd., Chennai	1 PG – 4 th Sem	06.01.2016 - 31.05.2016	Configurable BOM management process template based approach
31	Larsen & Toubro Limited, Coimbatore	1 PG – 4 th Sem	12.12.2015 - 30.04.2016	Failure analysis of boring and roaming operation
32	Pioneer Design & Engineering Pvt. Ltd., Chennai	1 PG – 4 th Sem	21.12.2015 - 05.05.2016	Design of automotive interior door trim with bio-degradable material and moulding analysis
33	Maxbyte Technologies, Coimbatore	1 PG – 4 th Sem	14.12.2015 - 30.04.2016	Improving customer experience of water purifier using design thinking methodology
34	Maxbyte Technologies, Coimbatore	1 PG – 4 th Sem	14.12.2015 - 30.04.2016	Proof of concept of augmented reality in product service

4.10. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1	U.Gopalakrishnan (11P202)	MS Industrial Engineering	University of Wisconsin, Madison
2	S.Srinivasa Raghavan (11P221)		State University of Newyork, Buffalo
3	T.Prabakar (11P120)		State University of Newyork, Buffalo
4	S.V.Aditya (11P102)	MS (by Research) Production Engineering	National Institute of Technology, Trichy
5	S.Singaravelan (11P127)	ME CIM	PSG College of Technology, Coimbatore
6	J.Saravananaraj (11P217)	MS Product Design	Sheffield University, Sheffield, UK
7	N.Akash Niruban (10P601)	MS - Industrial Engineering	University of Illinois Chicago, USA
8	A.M.Gautham (10P611)	MBA	SRM University, Kancheepuram
9	B.Nandhini (10P624)	MTech -Nano Technology	National Institute of Technology, Kozhikode

4.11. No. of students passed out

Year	UG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1983	23	1993	26	-	2003	34	22	2013	132	35
1984	33	1994	21	-	2004	32	38	2014	136	63
1985	25	1995	26	-	2005	31	29	2015	137	49
1986	36	1996	29	-	2006	36	55	2016	142	56
1987	32	1997	30	13	2007	79	33			
1988	33	1998	35	-	2008	83	39			
1989	21	1999	32	20	2009	97	32			
1990	30	2000	27	7	2010	103	41			
1991	26	2001	41	22	2011	95	37			
1992	26	2002	47	16	2012	129	38			

5. Summary

S. No.	Activity	No.	
1.	National conferences conducted	2	
2.	Workshops conducted	6	
3.	Short-term training programs conducted	2	
4.	Sponsored research projects ongoing	10	
5.	Sponsored research projects completed till date	48	
6.	Scholars pursuing doctoral research	41	
7.	Doctorates produced till date	3	
8.	Papers published in international journals	36	
9.	Papers published in national journals	8	
10.	Papers presented in international conferences	3	
11.	Awards won by faculty	1	
12.	Awards won by students	50	
13.	No. of. students passed out during 2015-16	UG	142
		PG	56
14.	No. of. students passed out till date	UG	1865
		PG	645

**DEPARTMENT OF ROBOTICS AND AUTOMATION
ENGINEERING**

ABOUT THE DEPARTMENT

The Department of Robotics and Automation Engineering was established in 2011 with an undergraduate programme. The department was established to meet the growing demand for trained engineers in the field of Industrial Automation. Automation Engineering is a cross-sectional discipline that requires sound, proportional knowledge in hardware as well as software development and their applications. This unique programme is tailored to prepare quality automation engineers for various application segments like manufacturing, defence, food, aerospace, medicine and other services.

Apart from experienced academicians, the department is also manned by competent and committed experts drawn from industry and practicing professionals in order to enhance the quality of the programme. And also, the international experience and exposure of the faculty enable them to provide international level of education to the students. The specialization areas of faculty include Power Electronics & Drives, Electrical Machines, Automation & Control, Micro/ Nano Manufacturing, Optical Engineering, Composite materials, Applied Electronics, Image processing, VLSI, Digital Signal processing and Instrumentation & control.

The department has a Research & Development Laboratory, E-Yantra Robotics Laboratory and a computer centre. The department has already established Centres of Excellence, namely, PSG-Adept Centre for Robotics with Adept Robotics USA, Centre for Advanced CNC and Robotics with Fanuc India Limited, PSG- Siemens Centre of Excellence in Automation with Siemens, PSG-Danfoss Centre of Excellence for Climate and Energy with Danfoss. Additionally, the department is in the process of establishing many laboratories for research as well as academic purposes.

A brief on research activities

The department is currently engaged in six research projects and is waiting for the approval of a few more projects. The projects are sponsored by different sponsoring agencies like BHAVINI, DST, RCI (Govt. of India Ministry of Defense Research Centre, Hyderabad), AR&DB (Govt. of India Ministry of Defense, DRDO) and Avon Corporation Limited.

Innovations can be made only with the help of research centers. A full-fledged centre for Robotics is operational within the premises of the institute and it supports the training and research project needs of students and faculty in the area of Robotics. The centre houses various kinds of robots like Industrial Robots, Mobile Robots, Robotic Arm and Flying Robots. Currently the department has four doctorates and eight faculty members pursuing their research projects.

Additionally, the department is establishing many laboratories in tie-up with other industries for research as well as academic purposes.

Major areas of research

- Humanoid Robot
- Industrial Robots
- Mobile Robots
- Robotic Arm
- Flying Robots
- Under water robots
- Medical Robots
- Vision System for Robots
- CNC Technology

- Micro-machining
- Totally Integrated Automation
- Composite Materials
- Robotized Pumps

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr. B. Vinod Ph.D. HoD In-charge	bvin@rae.psgtech.ac.in	2011	Power Electronics and Drives, Automation & Control, CNC
2	Dr. K.Fathima Patham Ph.D. Professor	kfp@rae.psgtech.ac.in	2011	Micro/Nano Manufacturing, Optical Engineering
3	Prof.A.R.Ramakrishnan M.E. Associate Professor	arr@rae.psgtech.ac.in	2014	Applied Electronics, Personal Computer Systems
4	Dr. M. Sundaram Ph.D. Associate Professor	msm@rae.psgtech.ac.in	2011	Electrical Machines & Power Electronics
5	Dr. K.S. Sujatha Ph.D. Associate Professor	kss@ece.psgtech.ac.in	2013	Robotics, Instrumentation and Control
6	Mr. M. Vasanthakumar M.E. Assistant Professor (Sr.Gr.)	mvk@rae.psgtech.ac.in	2013	Embedded Systems, Power Electronics, and Electrical Machines
7	Mr. C.S.Sundar Ganesh M.E. Assistant Professor (Sr.Gr.)	css@rae.psgtech.ac.in	2011	Digital Electronics Microprocessors and Microcontrollers
8	Ms. B. Bindu M.E. Assistant Professor (Sr.Gr.)	bdu@rae.psgtech.ac.in	2014	Control Systems, Electric Machines
9	Ms. V. Vishwa Priya M.E. Assistant Professor	vvp@rae.psgtech.ac.in	2015	Fluid Power Systems
10	Mr.T.Subramani M.E.(Hons) Assistant Professor	tsm@rae.psgtech.ac.in	2012	Image Processing, VLSI, Digital Signal Processing
11	Ms. A. Sivaranjani M.E. Assistant Professor	asr@rae.psgtech.ac.in	2012	Power Electronics, Mobile Robotics
12	Mr. S. Prabhakaran M.E. Assistant Professor	spk@rae.psgtech.ac.in	2012	Strength of Materials, Composite Materials
13	Ms. J. Joe Brislin M.E. Assistant Professor	jjb@rae.psgtech.ac.in	2014	Power Electronics and Drives, Microcontrollers
14	Ms.R.Gowri M.E. Assistant Professor	rgi@rae.psgtech.ac.in	2015	Computer Graphics, Artificial Intelligence

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining &status
1	Ms. B. Bindu	Ph.D.	2011, Ongoing
2	Mr. M.Vasanthakumar	Ph.D.	2012, Ongoing

S.No.	Name of faculty	Programme	Year of joining & status
3	Ms. A. Sivaranjani	Ph.D.	2013, Ongoing
4	Mr. S. Prabhakaran	Ph.D.	2013, Ongoing
5	Mr. C. S. Sundar Ganesh	Ph.D.	2014, Ongoing
6	Mr. T. Subramani	Ph.D.	2014, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.K.S.Sujatha	Embedded Robotics	-	10.07.2015 - 11.07.2015
2	Mr.C.S.Sundar Ganesh	Arduino Applications in Robotics	-	28.08.2015 - 29.08.2015
3	Mr.T.Subramani	Embedded Robotics	-	29.01.2016 - 30.01.2016
4	Ms.J.Joe Brislin,	National Workshop on "FPGA Based Control of Permanent Magnet & Reluctance Motors for Energy Efficient Industrial Drives".	Entuple Technologies, Bangalore	06.08.2015 - 08.08.2015
5	Ms.A.Sivaranjani, Ms.B.Bindu	National Workshop on "Mobile Robots".	-	16.07.2015 - 17.07.2015
6		National Workshop on "Modelling and Simulation of Power Electronic Converters Using Simulink".	-	02.07.2015 - 03.07.2015
7	Mr.T.Subramani	Introduction to Robotics	-	29.10.2015

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1		Training programme on COMSOL Multiphysics	Dept of Bio-Medical, PSG CT	19.06.2015
2		Didactic seminar on Cadence OrCAD Pspice and OrCAD PCB	Entuple Technologies, Bangalore	24.06.2015
3	Ms J.Joe Brislin	Design and Hardware Implementation of Control Systems using MATLAB and Simulink	MathWorks & Dept of I&CE, PSG CT	29.08.2015
4		Food Safe 2016 Symposium	ISA, Bangalore Section	26.02.2016 - 27.02.2016
5		"Model-Based Development of Mechatronic Controls with dSPACE"	PSG CT	16.10.2015 - 17.10.2015
6	Ms. B. Bindu	"Modeling and Simulation of Mechanical systems using MATLAB and Simulink"	MathWorks & Dept of EEE, PSG CT	13.10.2015
7		"Didactic Seminar on Cadence OrCAD PSpice and OrCAD"	PSG CT	23.06.2015

S.No.	Name of faculty	Programme	Organizer	Period
8	Ms R.Gowri	Microsoft 's Hadoop Big-data workshop	CIT, Coimbatore	11.09. 2015
9		Faculty Orientation Programme	PSG Centre for Academic and Research Excellence	11.12.2015 - 12.11.2015
10		Workshop on Creative Teaching Series – Bloom's Taxonomy		19.12 2015
11	Mr.C.S.Sundar Ganesh	One day training Programme on COMSOL Multiphysics	Department of BME, PSG CT	19.06.2015
12		Dictatic one day workshop on ORCAD Cadence and PSpice	Department of ECE, PSGCT	24.06.2015
13	Mr.T.Subramani	IMTEX - 2015	Indian machine Tool Manufacturers Association, Bangalore	23.01.2016 - 26.01.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Mr.C.S.Sundar Ganesh	Embedded Robotics	Arduino Basics	Dept. of RAE, PSGCT	10.07.2015
2		Mobile Robots	Basics of Lab view		16.07.2015
3		Arduino Applications in Robotics	Basics of Arduino		28.08.2015
4	Mr.C.S.Sundar Ganesh	Guest Lecture	Role of Digital logic Circuits in Automation	Bannari Amman Institute of Technology, Sathyamangalam	19.10.2015
5		Introduction to Robotics	Robot Subsystems	Department of Robotics, PSGCT	27.10.2015
6		Guest Lecture	Embedded C	GRD college of Science, Coimbatore	23.11.2015
7		Embedded Robotics	Basics of Arduino	Department of Robotics, PSGCT	29.01.2016
8	Ms.J.Joe Breslin	Embedded Robotics	Mobile Robots	Dept. of RAE, PSGCT	29.01.2016
9	Embedded Robotics	10.07.2015			
10	Mr.T.Subramani	Arduino Applications in Robotics			28.08.2015
11	Mr.T.Subramani	Introduction to Robotics	Introduction to Robotics	Dept. of RAE, PSGCT	29.10.2015

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr. B. Vinod	Governing Council Member	Southern India Engineering Manufacturers' Association (SIEMA)
		Vice-Chairman	Forum for Automation CII
		Executive Member	Indian Open Technology Alliance (IOTA)
2	Dr.K.Fathima Patham	Active Member	German Indian Round Table – Coimbatore (GIRT-CBE)
3	Mr.T.Subramani	Member of Editorial Board	Austin Journal of Robotics and Automation
4		Reviewer	Journal of Advance Research in Intelligence Systems and Robotics
5	Mr.C.S.Sundar Ganesh	Member of Editorial Board	International Scientific Academy of Engineering & Technology (ISAET)
6			International Journal of Engineering Trends and Technology
7			International Journal of Recent Research Aspects
8			ASDF Automation, Control and Intelligent Systems
9		Reviewer	World Academy of Science, Engineering and Technology
10			International Journal of Engineering research and Technology
11			International Journal of Scientific Engineering and Technology
12			International Journal of New Computer Architectures and their Applications
13			International Journal of Multidisciplinary Research and Modern Education
14			Journal of Electrical and Electronic Engineering
15			Indian journal of science and Technology
16			IASTER International Journals
17			International Journal of Current Research and Modern Education
18			Journal of Advanced Research in intelligent systems and robotics
19			International Journal of Scientific Research and Modern Education
20			International Journal of Engineering Research and Modern Education

3. DEPARTMENT ACTIVITIES

3.1. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration (Years)	Grant in INR (lakhs)
1	Design and Development of an open CNC Controller based on LINUX	Dr.B.Vinod Dr.M.Sundaram	DST, SERB, New Delhi	2012 In progress	3	27.0
2	Underwater Robot for tunnel cleaning	Dr.B.Vinod Dr.M.Sundaram	BHAVINI, Kalpakkam	2012 In progress	1.5	32.21
3	High-squint mode SAR data simulation and algorithm for image formation	Dr.B.Vinod Mr.T.Subramani	RCI, Hyderabad	2012 In progress	1	9.9
4	Vision-based precision entry into buildings and landing on elevated flat Surface	Dr.B.Vinod Mr.T.Subramani	AR&DB, DRDO Hyderabad	2012 In progress	1.5	47.64
5	Design and Development of Robotic Endotrainer	Dr.B.Vinod Dr.M.Sundaram Mr.M.Vasanthakumar Mr.S.Prabhakaran	DST GITA, New Delhi	2015 In progress	2	176.13
6	Design & Development of Smart Autonomous In service Inspection and Cleaning Ground Vehicle for Large Scale Solar PV Farms	Dr.M.Sundaram Mr.S.Prabhakaran	Solar Energy Research Initiative (SERI)	2015 In progress	3	68.6

3.1.1. Sponsored research activities – Abstract

Design and Development of an Open CNC Controller Based on Linux

This project proposes the design and development of an Open Architecture CNC System based on LINUX that will enable the system architecture to be manufacturer independent and characterized by interoperability, portability, scalability, and interchangeability.

The open architecture supports different machine tool makers, control and software vendors, system integrators, end users and academics. Most of the open CNC systems developed are extensions of the existing systems with some software modifications. Most of them do not include

any real-time component. The proposed system runs on LINUX with Open Real-Time extensions. The main characteristics of such software platforms primarily include stability, performance and security. Linux operating system is chosen as it is freely available in the global market with Free General Public License. It is secure and has high reliability over other CNC soft systems.

Development and Testing of a Prototype Underwater Cleaning and Inspection Robot (PUCR) at PFBR, Kalpakkam

The biological fuels are scarce as they are limited in quantity on earth. As the rate of utilization of these fuels is much more than the rate at which they are formed, they would certainly become extinct. On the other side increasing industrialization and development of science and technology have created an exponentially increasing demand for energy sources. Nuclear reactors have been an effective alternate source of energy in developed and developing countries in the past and countries all over the world are resorting to this source of energy. So the number of nuclear reactors and use of nuclear energy would only increase in future.

Nuclear reactor produces enormous amount of heat and the temperature needs to be controlled. All over the world nuclear reactors use sea water for cooling as it is an effective and easily available means to cool the reactors. Suction pipe line which sucks the sea water is dimensionally huge and completely submerged in sea water. Over a period of time layers of mud and biological growth are formed inside the pipe line. Even under water living organisms enter the pipeline. All these affect the flow of sea water and there by affecting the cooling system. For efficient functioning of this system suction pipe lines are to be cleaned periodically. These pipe lines are about 0.5 km long with diameter of about 3.6 m and submerged at a depth where pressures are high enough to affect the human system. It is hazardous for human beings to enter at such depths and undertake cleaning operations in such a lengthy pipeline where dangerous and poisoning under water organisms can exist. Also, the area of cleaning is large and depending upon the nature of the substance, removal and cleaning can take many hours. Undertaking diving operations for such a long time with limited life supported system under such hazardous conditions pose greater challenges to find an alternate method of achieving the requirement through mechanized means. Robots emerged to be the best alternative to undertake the task. These applications are specialized in nature and not many consumers exist, therefore there is no standard robot available in the market. Also each reactor requires customized robot with different functional, dimensional and technological requirements. The aim of this project is to design and develop a Remote Controlled Underwater Robot for Inspection and Cleaning of Water Tunnel for Bhavini Kalpakkam, Tamilnadu.

High Squint Mode SAR Data Simulation and Algorithm for Image Formation

RCI has been involved in the development of active RF seeker, based on the principle of mono pulse tracking. In mono pulse based system the down range resolution can be improved by using pulse coding techniques, however the cross range resolution is limited by the beam width, which again is dictated by the antenna dimensions.

The system works best within the targets which are separated by some distance. However, in ground based scenario, the targets are closely spaced, making precision homing guidance difficult as the missile homes on to the phase centroid of the multiple targets within the beam instead of engaging a single target.

Therefore, a requirement is being felt for RF imaging based seeker, which works on the principle of synthetic aperture radar. In case of SAR, the cross range resolution is improved by simulating a larger aperture. In normal SAR case the target is scanned in the direction perpendicular to the direction of motion of platform.

In missile based application this configuration is not feasible as the missile has to go past the target in order to scan it and then come back thus reduce the range. Hence, it is imperative to use a squint mode SAR, where the scanned seeker is placed such that the target is at some angle from the missile axis. The SAR based homing can be aided by the monopulse based guidance in the last stages when the target is very near.

Vision-Based Precision Entry into Buildings and Landing on Elevated Flat Surfaces

Many years of research in vision-assisted navigation has brought to the fore significant challenges related to robustness, computation requirements and even fundamental limitations of traditional methods when applied to real-world implementation. This motivates the need to outline the concepts of typical operations of such vehicles, define system requirements from there, and explore fundamentally new techniques within that envelope to achieve the required accuracies.

This project considers an operational scenario in which a MAV is to reach a designated place by following a broadly defined route. The proposed algorithm suite selects 'landmark' locations that are easy to identify, stores snapshots of these landmarks in a parsimonious form, and uses the best combination of available sensors to navigate to the desired location. The 'landmark' images could be from DLTV or IR, and the onboard sensor could be DLTV or IR; matching is achieved through human-inspired algorithms that allow cross-modality registration.

The proposed methods have been judiciously selected using a systems approach that combines innovative algorithms, preprocessing, and online processing to reduce the time, and potentially the expertise, required for selecting the route that is likely to guarantee a best match. Our research effort will make novel contributions in the areas of efficient feature storage and retrieval, invariant and robust cross modal registration of scene and reference images, fast optimized search for objects of interest, and an efficient system that can run on a low SWAP computing platform. Most importantly, it is expected to enhance navigation accuracy in GPS-denied/outage scenarios and with nil or poor-quality inertial sensors at any time of day or night. The algorithms shall be implemented on PC and demonstrated live with MAV in loop.

Design and Development of Robotic Endotrainer

The use of surgical robots in India is increasing, and so the demand for training. The deliverable from this project will be a prototype robotic Endotrainer. This robot will be used for training the surgeons and medical students, in hospitals, research intuitions and colleges in the field of minimally invasive robotic surgery. The final outcome of this project is a prototype Robotic Endotrainer which will serve as a proof of concept model for further commercial product development. This endotrainer will be used by Medical students, practicing surgeons, surgeons new to robotics surgery, across India and abroad for training in the usage of Robotic Surgical Systems. The endotrainer to be developed from this project will focus on the low cost market that is affordable in the developing countries.

Design & Development of Smart Autonomous In-service Inspection and Cleaning Ground Vehicle for Large Scale Solar PV Farms

The Indian government has launched Jawaharlal Nehru National Solar Mission (JNNSM) with a target of achieving 20000 MW by 2022. The goal is to make India one of the leaders in solar energy. The mission will be carried out in three phases and aims to do the following: to create a policy framework for deployment of 20,000 MW by 2022; to add 1,000 MW of grid solar power by 2013, and another 3,000 MW by 2017. The target for 2017 may be higher based on the availability of international finance and technology transfer. The performance of the PV system depends on the following Parameters:

- Irradiation
- Performance ratio
- Degradation

Irradiation is based on the climatic conditions and degradation is due to the manufacturing techniques and materials. Degradation is measured as per the standards.

The Performance ratio is significantly reduced by the dust accumulation on the panel, which is a severe issue in northern part of India. Soiling of solar panels can occur as a result of dust and dirt accumulation. In most cases, the material is washed off the panel surface by rainfall; however, dirt like bird droppings may stay even after heavy rains. The most critical part of a module is the lower edge. Especially with rather low inclinations, soiling at the edge of the frame occurs. By often repeated water collection in the shallow puddle between frame and glass and consecutive evaporation dirt accumulates. Once it causes shading of the cells, this dirt reduces the available power from a module.

3.2. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Mr.Aji Joy	Embedded Control of Power	Dr.B.Vinod Associate Professor & Head of Department of RAE, PSG CT Coimbatore	2008, In Progress
2	Mr.J.Chelladurai	Power Electronic Systems		2009, In Progress
3	Mr.P.Sivakumar	Automotive Embedded System		2011, In Progress
4	Ms.B.Bindu	CNC Control System		2011, In Progress
5	Mr.M.Anand	Power Electronics & Drives		2012, In Progress
6	Mr. M.Vasanthakumar	Personal Robotics		2012, In Progress
7	Ms. A. Sivaranjan	Mobile Robot Navigation		2013, In Progress

3.3. Board of studies

S.No.	Date	Agenda	External experts
1	10.10.2015	<ul style="list-style-type: none"> Preparation UG scheme and detailed Syllabi for Semester 3rd to Semester 8th (2015 regulations) New electives for UG. New one credit courses for UG 	<ol style="list-style-type: none"> Dr. AsokanThondiyath Associate Professor, Dept. of Engineering Design, IIT-Madras, Chennai-600 036 Dr. M. Santhakumar Assistant Professor, Mechanical Engineering, Indian Institute of Technology, Indore, Madhya Pradesh. Mr. A. K. Menon, Director, Strategi Automation Solutions Pvt Ltd, Plot No.25/B, DoddanankundiIndl Estate, Off Whitefield Road, Bangalore Mr. M. Krishnamoorthy Head- Industrial Projects, L&T Technologies Service Ltd., Bangalore- 560045

S.No.	Date	Agenda	External experts
2.	26.03.2016	<ul style="list-style-type: none"> • Finalization of UG detailed Syllabi for Semester 3 to Semester 8 (2015 Regulations) • New electives for UG. • New one credit courses for UG 	<ol style="list-style-type: none"> 1. Dr. AsokanThondiyath Associate Professor, Dept. of Engineering Design, IIT-Madras, Chennai-600 036 2. Dr. M.Santhakumar Assistant Professor, Mechanical Engineering, Indian Institute of Technology, Indore, Madhyapradesh. 3. Mr. M. Krishnamoorthy Head- Industrial Projects, L&T Technologies Service Ltd., Bangalore- 560045

3.4. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	97	-	-	-	1	-
2	GRD Library - Robotics & Automation Engineering	1714	28	120	6	3	NIL

3.5. Research publications

3.5.1. Papers published in international journals

1. Vinod B, Sundar Ganesh C S, Senthilkumar S K, Aashika Srinivas, Maria Kuriachan, Sibi S M, Veerabhadhran, "Development of Automated Coconut Harvester Prototype" in *International Journal of Innovative Research in Science, Engineering and Technology*, ISSN(Online): 2319-8753, ISSN (Print): 2347-6710, Vol 4, Issue 8, August 2015.
2. Sundar Ganesh C S, Subramani T, Rajadurai S, "Face Detection and Object Detection Using Image Processing" in *International Journal of Multidisciplinary Research and Modern Education (IJMRME)*, ISSN (Online): 2454 – 6119, Volume I, Issue I, 2015.
3. Sundar Ganesh C S, Sundareshan M, Dinesh Kumar M, Vinoth S, Vivekanandhan P, Mugesh S, Subramani T, "Automation in Autoconer Section of the Spinning Mill" in *International Journal of Innovative Research in Science, Engineering and Technology*, ISSN (Online): 2319-8753, ISSN (Print): 2347-6710, Vol 5, Issue 1, January 2016
4. Sundar Ganesh C S, Suriyamadhan P, "Intelligent Communication between Multiple Robots" in *International Journal of Multidisciplinary Research and Modern Education (IJMRME)*, ISSN (Online): 2454 – 6119, Vol II, Issue 1, 2016.
5. Fathima Patham K, Sundar Ganesh C S, Pradeep Rajan S, Sivabalan S, "Embedded based Home Automation" in *International Journal of Scientific Research and Modern Education (IJMRME)* ISSN (Online): 2455 – 5630, Vol I, Issue 1, 2016.
6. Sundar Ganesh C S, Arun J, Arunmozhi R, Parthiban M, Ponnusamy R, Lakshmiopathy P, "Flexible Control of Spatial Hyper Redundant Robot" in *International Journal of Advanced Engineering Research and Applications (IJAERA)*, ISSN: 2454-2377, Volume1, Issue11, March 2016.
7. Bindu B, Vigneswari Muthukumaresan, "Deluminator - An Energy Saving Device", *International Journal of Scientific & Technology Research*, Vol 5, Issue 2, Feb 2016.
8. Sundar Ganesh C S and Balaji S, "GSM enabled Automated Radio Station" in *International Journal of Advanced Engineering Research and Applications (IJAERA)*, ISSN: 2454-2377, Volume1, Issue12, April 2016.
9. M.Umamurugan, C.S.Sundar Ganesh, R.T.Karthick, "Object recognition using Robotic Vision" in *KIET International Journal of Communications & Electronics*, ISSN: 2320 – 8996, Volume. No. 4, Issue No. 1, January-June 2016.

10. Sundar Ganesh C S, Suriya Madhan P, "ZigBee Implementation on Multi Robot System", in *International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS)*, ISSN: 2393-994X, Vol: 5, 1, Special Issue on 2016.

3.5.2. Papers published in national journals

1. C.S.Sundar Ganesh, S.Balaji, D.S.Ramprasad, "Autonomous solar panel cleaning robot" in *National Journal of Technology*, ISSN -0973 – 1334, Vol 11, No.4, 2015, Coimbatore.

3.5.3. Papers published in national conferences

1. C.S.Sundar Ganesh, D.M.Hemachand Priyan and S.Ramkumar, "GSM enabled Screen tester" on *National Conference on Advances in Vehicle technology*, May 13, 2016 at PSG College of Technology, Coimbatore.

3.6. Visits abroad

3.6.1. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1	V. Anush Lakshmanan(12R203)	London, UK	21.06.2015 - 25.06.2015	eTail 2015, Trade Show
2.	N.Shanthasivam(13R446)	Colombo, Sri Lanka	21.02.2016 - 28.02.2016	INNEX 3.0 Automation Project Expo
3.	K.Aditya Varma (12R201)	Carnegie Mellon University, USA	15.01.2016 - 20.05.2016	Final year UG project
4.	K.Amrita (12R202)			
5.	D.Shakthi Sharavanan (12R237)			
6.	V.Anush Lakshmanan(12R203)	Purdue University, USA	23.11.2015 - 25.04.2016	
7.	S.A.Shree Sanjana(12R243)			
8.	Arun C Mathew (12R206)	Taylor's Engineering & Welding Services, Australia	30.11.2015 - 08.04.2016	
9.	V.Hemanarayana Prabhu (12R215)	University of Düsseldorf, Germany	01.12.2015 - 31.05.2016	
10.	M.P.Pradheep Krishna M P (12R228)			
11.	R.Aswin Karthikeyen (12R205)	Bosch Rexorth, Germany	24.12.2015 - 04.05.2016	

4. STUDENT ACTIVITIES

4.1. Student strength

S.No.	Class	No. of students
1	BE Robotics & Automation Engg - I Year	56
2	BE Robotics & Automation Engg - II Year	72
3	BE Robotics & Automation Engg - III Year	70
4	BE Robotics & Automation Engg - IV Year	71

4.2. Association Activity

S.No.	Topic	Chief guest	No. of Participants	Date
1	Automation Opportunities in Automobile Industries	Mr. Geeth Narayanan, Hirotec India, Coimbatore.	250	25.08.2015

S.No.	Topic	Chief guest	No. of Participants	Date
2	Under Water Robotics	Mr. Satish Ramachandran, Technical Manager, Tricks Innovations, Singapore	150	21.09.2015
3	Initiate Your Own Robotic Start-Up	Mr. S. Vigneshwaran, Virtual Frontier Pvt. Ltd., Chennai	140	20.10.2015
4	Robotic Activities in Bhabha Atomic Research Centre (BARC)	Dr. D. N. Badodkar, Head - Remote Handling & Robotics Division, BARC, Mumbai	150	31.10.2015
5	Surgical Robots	Prof. Dong-Soo, Kwon, Korea Advanced Institute of Science Technology, Korea	150	15.01.2016
6	Robotics and Drones	Mr. Fahad Azad, Founder – Robosoft & Engineering Manager, Grey Orange India, Gurgaon.	60	23.01.2016
7	Future of Artificial Intelligence	Prof. Dr.-Ing. Jürgen Dunker, Westfälische Hochschule, Germany	150	02.03.2016
8	Machine Vision Systems	Dr. Khemraj Emrith Professor, Centre for Machine Vision, University of the West of England, United Kingdom.	150	07.03.2016

4.3. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1	K.Amrita	12R202	Tech Day	RAE Best outgoing student	PSG CT	14.03.2016
2	S.A.Shree Sanjana	12R243	Alumni Induction	RAE Best outgoing student	PSG Tech Alumni Association	29.02.2016
3	V.Palaniappan	12R227	Belt Test	1 st Place	Alan Tilak International Karate School	20.10.2015
4	A.Kumar M.Sankar kumar	12R223 13R445	Kho-Kho Anna University Zonals	Winners	Anna University	22.09.2015
5			Kho-Kho	Winners	PSG CT	08.03.2016
6	A.Kumar M.Sankar umar C.Tamilarasan	12R223 13R445 14R445	Kho-Kho Centies	Winners	Centies	02.02.2016
7	A.Kumar M.Sankar Kumar C.Tamilarasan	12R223 13R445 14R445	Kho-Kho	3 rd place	Thiagarajar College of Engineering, Madurai	23.02.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
8	B.Sathiyavel	12R241	Volleyball Centies	Runners	Centies Volley Ball Association	13.02.2016
9			Intermurals Volleyball	Runners	PSG Tech	08.03.2016
10	L. Soundarya	15R250	Top Coders	I Place	PSG CT	05.03.2016
11			IPL Auction (E Club)	II Place	PSG CT	12.03.2016
12	E. Abinash	15R201	Marathon	72 nd Place	PSG CT	28.02.2016
13	S. Ashfia Fathima	15R211	YLGC-Mun 1 (GLF Club)	Verbal Mention	PSG CT	06.03.2016
14	S. Fiona Victoria	15R214	IPL Auction (E Club)	II Place	PSG CT	12.03.2016
15	T. Rashid Ahmed Meeran	15R240	IPL Auction (E Club)	II Place	PSG CT	12.03.2016
16	B. Rahul	15R237	IPL Auction (E Club)	II Place	PSG CT	12.03.2016
17	R. Sakthi Krishna	15R245	IPL Auction (E Club)	II Place	PSG CT	12.03.2016
18	S. Ramesh Kumar	15R238	IPL Auction (E Club)	II Place	PSG CT	12.03.2016
19	V. Manikandan	15R226	JavelinThrow	III Place	PSG CT	04.03.2016
20			Intramurals (Volley Ball)	Winner	PSG CT	04.03.2016
21			Intramurals (Cricket)	Runner	PSG CT	04.03.2016
22	S. Karthikeyan	15R222	Intramurals (Volley Ball)	Winner	PSG CT	04.03.2016
23	S. Sridhar Krishna	15R251	E-Connections (E-Club)	I Place	PSGCT	12.03.2016
24	G. Sajitha	15R244	7-S Throwball	I Place	PSGCT	12.01.2016
25	P. Sahithya	15R242	Zonal Tournament (Shuttle)	Runner	PSGCT	19.08.2015
26	M. Priscilla	15R236	Marathon	47 th Place	PSGCT	28.02.2016
27	M. Sanjay Raj	15R247	Air Wars	I Place	Sri Ramakrishna College of Engineering, Coimbatore	06.03.2016
28			Aero Modelling	Dr.A.P.J. Abdul Kalam Award	SRM University, Chennai	02.03.2016
29			National level Aero Modelling	I Place	MIT, Chennai	12.03.2016
30	A. Kavin	15R223	Quiz	I Place	Punyah Foundation, Coimbatore	12.10.2015

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
31			Ergo	I Place	Sri Ramakrishna Engineering College, Coimbatore	07.03.2016
32			Brahma	III Place	CIT, Coimbatore	29.08.2015
33			Zephyr	II Place	SNR Institutions, Coimbatore	01.03.2016

4.4. Final year project work

4.4.1. UG project (regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
1	12R212 13R439	S.Gokul Narayanan M.J.Niranjana	Software Development for Hospitality	Dr.B.Vinod	ASIMoV Robotics, Cochin
2	12R248 13R438 13R235 13R431	S.Surayarajan D.Nagarasu P.Koushik M.S.Abdul Majeed	Diamond Polishing Machine	Dr.B.Vinod	-
3	12R232	A.Ram Prakash	Automate the digitization of Badminton Videos	Mr.A.R.Rama krishnan	Messsy Fractals, Bangalore
4	12R251	S.Varun	Design and Development of Destacker Machine for 3500T Press	Mr.A.R.Rama krishnan	Maruti Suzuki, Gurgaon
5	12R237	D.Shakthi Sharavanan	Auto-Pilot Parking in Automated Vehicles	Dr.M.Sundaram	Carnegie Mellon University, USA
6	12R201	K.Aditya Varma	LIDAR Integration for Autonomous Vehicles		
7	12R202	K.Amrita	Interaction system between Driverless Car and Passenger Device		
8	12R239 12R229	H.R.Sanath Kumar S.Pragadheesh Raj	Home Automation	Dr.M.Sundaram	Karsen Technologies, Coimbatore
9	13R443 12R234 12R221 12R209 12R242	T.J.Reshmi M.Ramya M.Keerthana R.Dravida Selvi M.Seyathali Fatima	Face Recognition and Spoofing	Dr.K.S.Sujatha	-
10	12R243 12R203	S.A.Shree Sanjana V.Anush Lakshmanan	Gesture Based Programming with Baxter for Assembly Line Task	Dr.K.S.Sujatha	Purdue University, USA
11	13R446	N.Shanthasivam	Garment Measurements	Dr.K.S.Sujatha	Intimate Fashions,

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
12	12R235 12R255	M.Rohit Krishnan P.M.Yuvaraj	Automatic Sewing of Garments in XY Plane	Mr.M.Vasanth kumar	Chennai
13	12R230 12R253	M.Praveen Kumar A.Vignesh	Transportation of Panel in Sewing Industry		
14	12R247	S.Subash	Cloth Manipulation using 7 DoF Serial manipulator		
15	12R236 12R250 12R226	R.Roopika P.Vaishnavi P.C.Niveditha	Automated Painting of Industrial Components	Mr.C.S.Sundar Ganesh	Millenium Machine Works, Coimbatore
16	12R207	R.Aswin Karthikeyen	Programming and Commissioning of a Kuka Agilius Robot with Rexorth PLC for Didactic Process	Mr.C.S.Sundar Ganesh	Bosch Rexorth, Germany
17	12R206	Arun C Mathew	Monitoring Pressure Vessel and Heat Exchanger	Mr.C.S.Sundar Ganesh	Taylor's Engineering & Welding Services, Australia
18	12R216 13R448	K.Hemasuganya V.Srilekha	Automatic Winding Machine	Ms.B.Bindu	Indian Hitachy Pumps, Coimbatore
19	12R254 12R214 12R233	R.Vignesh Kumar D.M.Hemchand Priyan S.Ramkumar	Testa Robotic Arm	Ms.B.Bindu	Robert Bosch Business & Engineering Solutions, Coimbatore
20	12R240 12R241 12R224 12R440	S.Saravanan B.Sathiyavel V.Lakeshwaran S.Godwinzenith	Cone Yarn Packing in Textile Industry	Ms.V.Viswa Priya	Ram Enterprises
21	12R204	M.Aravind	CNC Autoloader	Ms.V.Vishwa Priya	Synetics Automation, Coimbatore
22	13R436 13R440 13R444	M.Mohanraj A.Prakash R.Sabareswaran	Process Automation for Spot Welding Application	Ms.V.Vishwa Priya	Hirotech, Coimbatore
23	12R246	V.V.Soundarya	Underbody Stud Welding Automation	Mr.T.Subramani	Mercedes Benz Research & Development India Pvt. Ltd., Bangalore
24	12R215 12R228	V.Hemanarayana Prabhu M.P.Pradheep Krishna	A Bulk Material Dispensing Unit	Mr.T.Subramani	University of Düsseldorf, Germany

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry/ Institute associated
25	13R445 13R442 13R441 12R231	M.Sankarkumar R.Ranganathan S.Prasanth K.Raja	Coconut Harvester	Ms.A.Sivaranjani	IOTA
26	12R218	R.Jeevaraj	Smart Scheduling	Ms.A.Sivaranjani	BSNL, Chennai
27	12R249	A.Thirthagiri	System Integration for Spinning Machine	Ms.A.Sivaranjani	Siemens, Coimbatore
28	12R238 12R223 13R449 12R210	R.Sampath Kumar A.Kumar K.Vasanthanayagam A.Elanthamilan	Solar Panel Cleaning Robot	Mr.S.Prabhakaran	-
29	12R244	R.Sivakami	Arc Welding For Clutch	Mr.S.Prabhakaran	ABB, Bangalore
30	12R208	M.Deepan	Welding Robot	Mr.S.Prabhakaran	ABB, Bangalore
31	12R227 12R225 12R211 13R437	V.Palaniappan S.Milesh R.Femina M.Nagarani	Centrifugal Control System	Ms.J.Joe Brislin	IPCS Automation, Coimbatore
32	13R432	V.Balasubramani	PLC Interfacing with ABB Robot IRB 2400 by Profibus	Ms.J.Joe Brislin	Titan Automation, Hosur
33	12R222 12R213 12R252	S.T.Keerthana R.Gowtham M.Venkateshwar	Intelligent Public Washroom	Ms.J.Joe Brislin	Accubot, Coimbatore
34	13R447 13R433	U.Siragiriguhan G.Gowtham	Fruit Grader using Machine Vision System	Ms.R.Gowri	-
35	13R434	G.Karthikeyan	Design and Programming in 5 Axis Machining Centre	Ms.R.Gowri	Kaarthi Enterprise, Coimbatore
36	12R205	R.Aravind	Report Logging Using PLC	Ms.R.Gowri	Maarks Engineering, Coimbatore

4.5. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
1	GATE	3	NIL	
2	GRE	5	12R225	S.Milesh
			12R207	R.Aswin Karthikeyan
			12R232	A.Ram Prakash
			12R228	M.P.Pradheep Krishna
			12R229	S.Pragadheesh Raj
3	IELTS	1	12R228	M.P.Pradheep Krishna
4	MAT	1	13R446	N.Shanthasivam

4.6. Placement

S.No.	Name of Company	No. of Students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Fanuc India Pvt. Ltd., Bangalore	1	13R440	A.Prakash	2.62
2	Mercedes Benz Research & Development India Pvt. Ltd., Bangalore	1	12R246	V.V.Soundarya	4.75
3	Robert Bosch Business & Engineering Solutions, Coimbatore	3	12R214	D.M.Hemachand Priyan	4.00
			12R233	S.Ramkumar	
			12R254	R.Vignesh Kumar	
4	L&T Technology Services, Bangalore	1	12R247	S.Subash	3.60
5	ASIMoV Robotics, Cochin	1	12R212	S.Gokul Narayanan	3.00
6	Hirotech Automation, Coimbatore	1	13R444	R.Sabareswaran	2.75
7	Payoda, Coimbatore	1	12R440	S.Godwinzenith	2.80
8	Igarashi Motors, Chennai	1	13R438	D.Nagarasu	1.80
9	Intimate Fashions, Chennai	1	13R446	N.Shanthasivam	2.00
10	Strategi Automation Ltd.,	1	13R433	G.Gowtham	2.80
11	Mu Sigma Business Solutions Pvt. Ltd., Bangalore	3	12R202	K.Amrita	6.00
			12R236	R.Roopika	
			12R243	S.A.Shree Sanjana	
12	Tata Consultancy Services Ltd.	6	12R205	R.Aravind	3.33
			12R208	M.Deepan	
			12R216	K.Hemasuganya	
			12R225	S.Milesh	
			12R227	V.Palaniappan	
13	Cognizant	8	12R242	M.Seyathali Fatima	3.25
			12R209	R.Dravida Selvi R	
			12R215	V.Hema Narayana Prabhu	
			12R218	R.Jeevaraj	
			12R226	P.C.Niveditha	
			12R241	B.Sathiyavel	
			13R436	M.Mohan Raj	
13R443	T.J.Reshmi				
14	Accenture	7	13R445	M.Sankar Kumar	3.5
			12R211	R.Femina	
			12R213	R.Gowtham	
			12R221	M.Keerthana	
			12R230	M.Praveen Kumar	
			12R235	M.Rohit Krishnan	
			12R240	S.Saravanan	
13R437	M.Nagarani				

S.No.	Name of Company	No. of Students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
15	IBM India Pvt. Ltd.,	4	12R222	S.T.Keerthana	3.15
			12R237	D.Shakthi Sharavanan	
			12R251	S.Varun	
			12R255	P.M.Yuvaraj	
16	Infosys Technologies Ltd.	3	13R432	V.Balasubramani	3.25
			13R439	M.J.Niranjan	
			13R442	R.Ranganathan	
17	IDBI Federal Bank	1	12R250	P.Vaishnavi	2.40

4.7. Industrial training and project

4.7.1 Project work / Internship

S.No.	Name of company	No. of students & course	Period	Area of work
1	ASIMoV Robotics, Cochin	2(UG)	Jan '16 – Jun '16	Software Development for Hospitality
2	Messsy Fractals, Bangalore	1(UG)	Jan '16 – Apr '16	Automate the digitization of Badminton Videos
3	Maruti Suzuki, Gurgaon	1(UG)	Jan '16 – Apr '16	Improvising the efficiency of the gear system
4	Karsen Technologies, Coimbatore	2(UG)	Dec '15 – Apr '16	Home Automation
5	Intimate Fashions, Chennai	5(UG)	Dec '15 – Mar '16	Garment Measurements, Automatic Sewing, Transportation of Panel and Multi axis Motion Control
6	Millenium Machine Works, Coimbatore	3(UG)	Dec '15 – Apr '16	Automated Paint Drying
7	Indian Hitachy Pumps, Coimbatore	2(UG)	Dec '15 – Apr '16	Automatic Winding Machine
8	Robert Bosch Business & Engineering Solutions, Coimbatore	3(UG)	Dec '15 – Apr '16	Touch Emulated Smart Testing Arm
9	Synetics Automation, Coimbatore	1(UG)	Dec '15 – Mar '16	CNC Autoloader
10	Hirotech, Coimbatore	3(UG)	Dec '15 – Apr '16	Process Automation for Spot Welding Application
11	Mercedes Benz Research & Development India Pvt. Ltd., Bangalore	1(UG)	Dec '15 – Jun '16	Underbody Stud Welding Automation
12	BSNL, Chennai	1(UG)	Dec '15 – Apr '16	Smart Scheduling
13	Siemens, Coimbatore	1(UG)	Dec '15 – Apr '16	System Integration for Spinning Automation
14	ABB, Bangalore	2(UG)	Nov '15 – Mar '16	Welding Robot
15	Titan Automation, Hosur	1(UG)	Dec '15 – Jun '16	PLC Interfacing with ABB Robot IRB 2400 by Profibus
16	Accubot, Coimbatore	3(UG)	Dec '15 – Apr '16	Intelligent Public Washroom

S.No.	Name of company	No. of students & course	Period	Area of work
17	Kaarthi Enterprise, Coimbatore	1(UG)	Dec '15 – Apr '16	Design and Programming in 5 Axis Machining Centre
18	Maarks Engineering	1(UG)	Jan '15 – May '16	Report Logging using PLC

4.7.2 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	IMTEX exhibition, Bangalore	40 , UG- 6 th sem	27.01.2015-29.01.2015	Machine tool

4.7.3 Short term training

S.No.	Name of company	No. of students & course	Period	Area of training
1	BMW India Private Limited, Chennai	2(UG)	11.05.2015 to 30.06.2015	Product Engineering and Support
2	Fanuc India Private limited, Bangalore	5(UG)	28.09.2015 to 20.09.2015	Robot Operation and Programming with Roboguide
3	TVS Motor Company limited, Hosur	1(UG)	13.05.2015 to 24.06.2015	Measurement of Camshaft parameters
4	Hindustan Coca-Cola Beverages Private limited, Thiruvallur	2(UG)	29.05.2015 to 20.06.2015	Process Control

4.8. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1	A.C.Nivethitha	M.S - Electrical Engineering	Indiana Purdue University, USA
2	P.Suriya Madhan	M.S - Robotics	Worcester Polytechnic Institute, USA
3	D.Samyuktha	M.S - Robotics	Worcester Polytechnic Institute, USA
4	M.Sundaresan	M.Tech - Robotics	SRM University, Chennai
5	S.Minu	MBA	PSG IM, Coimbatore
6	S.Balaji	M.S - Robotics and Computer Science	University of Massachusetts Lowell, USA
7	Arun C Mathew	M.E – Automation and Manufacturing Systems	The University of Sydney, Australia
8	P.C.Nivedhita	Masters in Cybernetics and Robotics	Czech Technical University, Prague, Czech Republic
9	S.SurryaRajan	M.Sc – Control Engineering and Robotics	Gdansk University of Technology, Poland

4.9. No. of students passed out

Year	UG	PG	Ph.D
2015	66	-	-
2016	67	-	-

5. SUMMARY

S. No.	Activity		No.
1	Workshops conducted		7
2	Sponsored research projects ongoing		6
3	Scholars pursuing doctoral research		7
4	Papers published in international journals		7
5	Papers published in national journals		1
6	Papers presented in national conferences		1
7	Awards won by students		38
8	No. of. students passed out during 2015-16	UG	67
9	No. of. students passed out till date	UG	133

DEPARTMENT OF BIOTECHNOLOGY

ABOUT THE DEPARTMENT

The Department of Biotechnology was started in July 2000 with the mission to create and transmit state-of-the-art knowledge in biosciences and technology. The department is offering a four-year undergraduate programme (B.Tech. Biotechnology), a two-year masters programme (M.Tech. Biotechnology) and research degree programmes (M.S. and Ph.D.). The B.Tech Biotechnology programme of the department was accredited by the National Board of Accreditation (NBA), New Delhi for a period of three years from Feb. 2009.

The department has good facilities with modern equipments like Fermentors, Gas Chromatograph, HPLC, Thermal Cyclers, Gel Documentation Systems, Phase Contrast/ Dark Field Microscopes, ELISA Reader, CO₂ Incubator, Freeze Drier, Nano-spectrophotometer, Deep freezer and software packages (Fluent and GAMBIT). The department also has well established bioinformatics laboratories with desktop computers with Windows and Linux OS.

The department has established the following laboratories: Bioprocess Engineering, Bioinformatics, Genetic Engineering, Immunology, Microbial Technology, Plant tissue culture, Animal Cell culture, and Chemical engineering. A small scale green house and Zebra fish set up had been installed in the department. Ongoing researches in the department are in the fields of bio-fuel, Photocatalysis, neurodegenerative disorders, transcription control, plant molecular biology, molecular genetics, molecular pathology, Bio-MEMS, Bioinformatics: NGS data analysis, Computational fluid dynamics and Phyto-remediation.

The Department has assisted various agencies through testing and technical consultancy services. The professional expertise of the faculty and staff has been utilized by commercial, manufacturing, start-up, servicing companies as well as academic institutions and research scholars from different organizations to solve their problems in the area of quality assessment, manufacturing, research or clinical endeavours.

The Department is in a position to offer consultancy for technology evaluation, scale-up studies, trouble shooting and specific technology development in fermentation, pollution abatement and food technology.

We have provided analytical services to various clients in the past. We offer the following Analytical Services:

1. Filterable residues in lubricants
2. Optical Absorbance characterization
3. Drug candidate evaluation - bacterial sensitivity
4. Drug candidate evaluation - fungal sensitivity
5. DNA manipulation
6. Water quality and potability testing
7. Spirulina characterization
8. Anti-microbial Testing for:
 - a. Textiles
 - b. Phytoformulations
 - c. Synthetic Molecules
 - d. Drug Candidates
9. Wastewater Quality Analysis
10. Lyophilization
11. In-vitro Analysis of Anticancer Properties

12. AMES Test
13. Y Chromosome Micro-deletion Analysis
14. Endodontic Pathogen Analysis

Consultancy Services

The Department has assisted various clients in the following areas

1. Laboratory Establishment
2. Guidance in Biotech based Venture Development
3. Techno-Commercial evaluation of project proposals to various agencies
4. Assistance to organizations in Curriculum Development and Academic matters.
5. Type Testing
 - a. Microbial
 - b. Plant
 - c. Wool
 - d. Meat
 - e. Cheese
6. Microbial Load Assessment and Containment
7. Establishment of Start-up Ponds for Algal Cultivation
8. Flow Pattern Analysis in Reactors
9. Carbon Credit Analysis
10. Environmental Impact Assessment
11. Setting-up of Plant Tissue Culture Units
12. DNA Based Markers for Diseases

The department has scientific interaction with industries like SAMI labs, Bangalore, Senthil Papain and Food Products (P) Ltd.,-Coimbatore, T. Stanes Company Ltd., Coimbatore, Prathishta Industries, Secunderabad, ITC, Bangalore, Genotypic solutions, Bangalore, Biocon Pvt. Ltd., Bangalore and Institutions like IITM, Chennai, IISc, Bangalore, Bharathiar University, Coimbatore and TNAU, Coimbatore.

1. FACULTY

S. No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.M.Anantha subramanian, Ph.D Professor and Head	mas@bio.psgtech.ac.in	2000	Biofilm, Drug resistance, Phage diversity
2	Dr.V.Ramamurthy, Ph.D Professor	ram@bio.psgtech.ac.in	2000	Molecular genetics, Industrial bioprocess
3	Dr.P.Rani, Ph.D Professor	rani@bio.psgtech.ac.in	2001	Biochemistry, enzyme application, immunological sensors
4	Dr.SelviSubramanian, Ph.D Professor	selvi@bio.psgtech.ac.in	2002	Molecular biology, plasmid genetics
5	Dr.J.Hema, Ph.D Associate Professor	jhema@bio.psgtech.ac.in	2007	Phyto-remediation; Waste management
6	Dr.C.Sabarinath, Ph.D Associate Professor	csab@bio.psgtech.ac.in	2002	Bio Chemical engineering, pharmaceuticals
7	Dr.S.Jayanthi, Ph.D Assistant Professor (Sr.Grade)	jay@bio.psgtech.ac.in	2006	Plant Breeding & Genetics, Microbial drug resistance
8	Dr.J.Poongothai, Ph.D Assistant Professor (Sr.Grade)	jpi@bio.psgtech.ac.in	2010	Molecular Biology
9	Dr.S.Vidyalakshmi, Ph.D Assistant Professor(Sr.Grade)	svd@bio.psgtech.ac.in	2008	Biochemistry,
10	Mr.G.Karthik Vijayakumar, M.Tech Assistant Professor	gkv@bio.psgtech.ac.in	2011	Non conventional bioreactor designing
11	Ms.R.Ramalakshmi, M.Tech Assistant Professor	rrl@bio.psgtech.ac.in	2013	Epigenetics
12	Ms.N.Kalaiarasi, M.Tech Assistant Professor	nka@bio.psgtech.ac.in	2013	Computational fluid dynamics & photocatalysis.
13	Ms.G.Hemashree, M.Tech Assistant Professor	ghs@bio.psgtech.ac.in	2014	Molecular allergology, Microarray and NGS data analyses
14	Dr. S.Niju , Ph.D Assistant Professor	nijuwillbe@gmail.com	2015	Biofuels, Heterogenous catalysis & Biomass conversions.
15	Dr.L.Ansel Vishal, Ph.D Assistant Professor	anselvishal@gmail.com	2015	Parasitology and Immunobiology

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mr.G.Karthik Vijayakumar	Ph.D.	2014, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Faculty	Details of Conference	Collaborating agency	Date
1.	Dr.V.Ramamurthy	"Start your own Bio-business"	-	10.07.2015
2.	Mr.G.Karthik Vijayakumar	One credit course on "Quality assurance and control in food industry"	-	26.09.2015- 27.09.2015
3.	Dr. L.Ansel Vishal	One credit course on "Biocatalyst and Biotransformation"	-	13.02.2016- 14.02.2016
4.	Dr. S.Vidyalakshmi & Ms.G.Hemashree	Workshop on "Statistics for Biologists"	-	26.02.2016- 27.02.2016
5.	Mr.G.Karthik Vijayakumar	One credit course on "Challenges in large scale Bioprocess"	-	26.03.2016 -27.03.2016
6.	Mr.G.Karthik Vijayakumar & Ms.S.Jayanthi	National conference on Advances in Bioprocess and Downstream process	-	20.04.2016- 21.04.2016

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of the Faculty	Details of Seminars / Conferences	Organizer	Period
1.	Dr.M.Anantha subramanian	Management Capacity Enhancement Program	Indian Institute of Management, Kozhikode	24.08.2015- 29.08.2015
2.	Dr.P.Rani	Presented a paper on "Association of RAGE G82S polymorphism in Alzheimer's disease- A pilot study on International conference on "Neurodegenerative diseases: Pathogenesis to Therapy"	Centre for Neuroscience, IISC, Bangalore	16.11.2015- 18.11. 2015
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016- 27.02.2016
3.	Dr. J. Hema	Conference (International conference on "Solid Waste 2015")	Hong-Kong Special Administrative region, PR, China	19.05.2015 23.05.2015
		Conference: Global Biotechnology Summit, 2016: Celebrating Biotechnology : "Destination India"	DBT, New Delhi	05.02.2016- 06.02.2016
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016- 27.02.2016
4.	Dr.J.Poongothai	Presented a paper on "Mitochondrial DNA Mutation in Diabetic Infertility" in a conference on " Mitochondria in cancer and Neurodegenerative Disorders"	Aravind Medical Research Foundation, Madurai	06.11.2015- 07.11.2015
		A workshop on "SPSS"	PSGIM, Coimbatore	12.02.2016- 13.02.2016

S.No.	Name of the Faculty	Details of Seminars / Conferences	Organizer	Period
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016-27.02.2016
5.	Dr.S.Vidya laksmi	Conference on "Mitochondria in cancer and Neurodegenerative Disorders"	Aravind Medical Research Foundation, Madurai	06.11.2015-07.11.2015
		A workshop on "SPSS"	PSGIM, Coimbatore	12.02.2016-13.02.2016
		Summer fellowship and training	Indian Institute of Sciences, Bangalore	18.04.2016-12.06.2016
6.	Dr.S. Jayanthi	Workshop on "Dr. Cho's Global Natural Farming"	Pulicherla, Andra Pradesh	28.01.2016-30.01.2016
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016-27.02.2016
7.	Mr.G. Karthik Vijayakumar	Workshop on "Foundation Skills in Integrated product Development"	PSG CT	19.01.2016-23.01.2016
		Conference on "Bioprocessing India -2015"	IIT- Madras, Chennai	17.12.2015-19.12.2015
		Attended a FDP on "Sustainable Technology for waste to energy".	GCT, Coimbatore	10.08.2015 - 14.08.2015
		Workshop on "COMSOL MULTIPHYSICS"	PSG CT	19.06.2015
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016-27.02.2016
8.	Ms.N.Kalaiarasi	Workshop on "COMSOL MULTIPHYSICS"	PSG CT	19.06.2015
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016-27.02.2016
		Summer fellowship and training	Indian Institute of Technology, Delhi & IAS	17.05.2016-16.07.2016
9.	Ms.G.Hema shree	Workshop on " High Performance Computing"	PSGCA -CDAC, Pune	12.08.2015-13.08.2015
		Presented a poster on "Microarray meta analysis on serous ovarian cancer" in symposium on "Algorithms and Applications of Bioinformatics"	IIT Madras Tokyo tech joint symposium	05.11.2015-06.11.2015
		Attended a Training and workshop on "Sequence analysis and molecular simulation"	Anna University, Chennai	19.01.2016-22.01.2016
10.	Dr.L.Ansel Vishal	Workshop on " High Performance Computing"	PSGCA -CDAC, Pune	12.08.2015
		Orientation Programme on " Creative teaching on blooms taxonomy"	PSGCARE	11.12.2015-12.12.2015
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016-27.02.2016

S.No.	Name of the Faculty	Details of Seminars / Conferences	Organizer	Period
11.	Dr.S.Niju	Presented "Green and renewable heterogeneous catalysts for biodiesel production from waste frying oil" in a National Conference on "Recent trends in Clean Technology for Sustainable Development"	SSN College of Engineering, Chennai	25.09.2015
		Foundation skills in Integrated product development (Workshop)	PSG CT	23.11.2015 - 27.11.2015
		Patenting of Bio-Inventions (Workshop)	Tamil Nadu Agricultural University, Coimbatore	09.12.2015,
		Workshop on "Statistics for Biologists"	Department of Biotechnology, PSG CT	26.02.2016- 27.02.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Dr.M.Anantha subramanian	-	Microbiome in Humans	Sri Narayana Guru College, Coimbatore	08.11.2015
		-	Microbial Proteomics	PSG CAS	21.01.2016
2.	Dr. V.Rama murthy	Workshop on "Statistics for Biologists"	Lies, Damn lies and publications	Department of Biotechnology, PSG CT	26.02.2016
3.	Dr.P.Rani	Biochemistry Association Meeting	Recent Trends in genomics and proteomics	Sri Ramakrishna College of Arts and Science for women, Coimbatore	18.02.2016
		Science day Lectures	Alzheimer's Diseases - Unraveling the mystery	Sri Narayana Guru College, Coimbatore	25.02.2016
4.	Dr.Selvi Subramanian	Workshop on "Statistics for Biologists"	Statistics on Genome Wide Associated Studies	Department of Biotechnology, PSG CT	27.02.2016

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr.M.Anantha subramanian	Secretary, Local Chapter Coimbatore	Institute of Smart Structures and Systems
		One credit course: Challenges in large scale bioprocess	Dr. Ramesh Kumar, Salem Microbes, Tamil Nadu
		Project and Paper publication in progress	Collaboration with Auckland University, New Zealand and University of San Diego, USA

S.No.	Name of faculty	Activity / Role	Organization
		Proposal submission for Global Initiative of academic networks (GIAN)	University of Luxembourg, Luxembourg & Victoria University, Melbourne, Australia
2	Dr. V. Ramamurthy	Member (Honorary) Board of Directors	Prathista Industries, Hyderabad
		Member, Engineering/Technology Accreditation Evaluation Committee:	National Board of Accreditation, New Delhi
		Guiding developmental activities for Defluoridation plants in Dharmapuri and Krishnagiri District, Tamil Nadu	TWAD Board, Tamil Nadu and UNICEF
		Editorial Board Member	Journal of Bioengineering and Bioscience
3	Dr. P. Rani	Reviewer	American Journal of Alzheimers disease and other dementias, SAGE Publications
		One credit course: Quality assurance and control in food industry	Dr. K. R. Swaminathan, Olam Agro India Pvt. Ltd, Cochin
		Institution Research review committee	PSG College of Pharmacy, Coimbatore
		Project review committee member	Technovator, PSG STEP, Coimbatore
		Reviewer	PLOS ONE, Elsevier Publications
4	Dr. Selvi Subramanian	Reviewer	Biochemical Genetics, Springer Publications
5	Dr. J. Hema	Guiding developmental activities for Defluoridation plants in Dharmapuri and Krishnagiri District, Tamil Nadu	TWAD Board, Tamil Nadu and UNICEF
6	Dr. C. Sabarinath	Research Colloboration on Project titled "A study into the feasibility of using salivary cues as a non-invasive diagnostic tool for assessing renal health"	Aries Biomed Technology Pvt. Ltd
		Internship Scheme Extramural project	TIFAC- MSME
		Proposal submission for Global Initiative of academic networks (GIAN)	Victoria University, Melbourne, Australia
7	Dr. S. Jayanthi	Insertional sequence based analysis of clinical isolates with NDM (blaNDM 1 gene) resistance.	PSGIMSR
		One credit course "Patents and Copy rights"	METAYAGE IP, IP consultancy services, Bengaluru
8	Dr.S.Vidyalakshmi	Research Colloboration on Project titled "Estimation of oxidative stress markers and granulocyte colony stimulation factor in serum and follicular fluid of	Vamsam fertility centre, Coimbatore

S.No.	Name of faculty	Activity / Role	Organization
		women undergoing IVF" Publication in progress	
9	Ms. G.Hemashree	Proposal submission for Global Initiative of academic networks (GIAN)	University of Luxembourg, Luxembourg
10	Dr. S. Niju	Reviewer	Journal of Environmental Progress and Sustainable Energy, Wiley Publications
		Reviewer	Philippine Journal of Science, Department of Science and Technology

2.6. Award won by faculty

S.No.	Name of faculty	Nature of award	Awarded by	Date
1	Dr. S. Vidyalakshmi	Summer fellowship	Indian Academy of Sciences	18.04.2016
2	Ms. N. Kalaiarasi	Summer fellowship	Indian Institute of Technology, Delhi	17.05.2016

2.7. Book published

S No.	Name of faculty	Details of the book
1	Dr.M.Anantha subramanian	A book chapter "Bioprocessing of natural plant Cellulose polymer materials" in the book named "Handbook of Sustainable Polymers: Processing & Applications", CRC Press, Oct 28, 2015, ISBN 978-9-814-61353-8
2	Dr. J.Hema	A book chapter "Transgenic plants and antioxidative defense: Present & Future?" in the book "Reactive oxygen species and oxidative damage in plants under stress", Springer, Sep 2015, ISBN 978-3-319-20421-5.
3	Dr.V.Rama murthy	A book chapter "Challenges to and Opportunities in Microbial Fuel Cells" in the book "BIOENERGY Opportunities and Challenges", Apple academic press, ISBN: 978-1-77188-109-8

2.8. Patent

S. No.	Name of faculty	Details of the patent
1	Dr. V. Ramamurthy Dr. J. Hema	An adsorbnet for effective fluoride removal from ground water Patent Application No- 4835/CHE/2015

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Instrumentation Lab	M/s. Bio-Rad Laboratories (India) pvt.ltd., CFX96 Touch system w/consumable Percision Melt curve Analysis Software	9.56

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (lakhs)
1.	Development of glycogen synthase kinase 3 inhibitors for neurogenesis in neurodegenerative disorders	Dr.P.Rani	Department of Biotechnology, (DBT), NewDelhi	2011, Completed	5 years	66.11
2.	Role of selenium & selenoproteins in pathology of Alzheimer's disease	Dr.P.Rani		2012, Completed	3 years	31.07
3.	BIOMEMS device for separation of bioparticles	Dr.M.Anantha subramanian		2012, Completed	3 years	40.00
4.	Development of porous scaffold for bone implant	Dr.M.Anantha subramanian	Department of Science & Technology New Delhi	2012, Completed	3 years	14.00
5.	Vetiver based Treatment System for Textile industry Wastewater	Dr.J.Hema	Department of Biotechnology, NewDelhi	2014, In progress	3 years	16.02
6.	Pilot scale demonstration of a novel water defluoridation unit for rural areas.	Dr.V.Rama murthy Dr. J. Hema (Co-PI)	Department of Science & Technology NewDelhi	2014, In progress	2 years	23.94
7.	Studies on omega 3 desaturase genes in <i>Sesamum indicum L.</i> to improve its oil quality	Dr. Selvi Subramanian (Co-PI)	Women Scientist scholarship under scheme –A of DST, New Delhi	2014, In progress	3 years	15.29
8.	Study on RAGE - amyloid interactions with relevance to AD pathology and influence of G82S RAGE polymorphism on the above interaction.	Dr.P.Rani	DST –WOS(A) Women Scientist scholarship under scheme – A of DST, New Delhi	2015, In progress	3 years	23.76
9.	Ultrasound assisted biomass derived heterogeneous catalytic system for biodiesel production from non-edible oils.	Dr.S.Niju	Department of Science & Technology (DST), New Delhi	2016, Yet to start	3 years	20.00

3.2.1. Sponsored research activities -Abstract

Development of glycogen synthase kinase 3 inhibitors for neurogenesis in neurodegenerative disorders

Glycogen synthase kinase (GSK-3) is a protein kinase present in two isoforms GSK-3 α and β which are ubiquitously expressed and constitutively active in many physiological process including cell proliferation, metabolism, gene expression and apoptosis. Between two isoforms GSK-3 β has been expressed mainly in nervous tissue and implicated in molecular pathogenesis of human disease. Currently GSK-3 β has been focused for the therapeutic treatment of most prevalent diseases like type II diabetes, Alzheimer's disease, stroke, bipolar disorders and repopulating the transplanted hematopoietic stem cells. Diverse molecules have been tested for GSK-3 β inhibition and shown efficacy in preclinical testing and currently no GSK-3 β inhibitors has been approved for clinical use. Majority of these molecules reported as GSK-3 β inhibitor has been given through intraperitoneal or intravenous routes of administration. However molecules acting through oral route of administration are required and target specific molecules which can cross blood brain barrier may be beneficial but is currently lacking. The objective of the present study is to study the GSK protein kinase isoforms on their ligand binding sites, design, synthesize and evaluate GSK-3 β inhibitors in neurodegenerative conditions. The expected outcome of the project will be development of new chemical entity which can be patented and commercialized with the help of pharmaceutical companies. Successful molecules will be further investigated for drug ability studies.

Role of selenium and selenoproteins in pathology of alzheimer's disease

Alzheimer's disease is the most common form of dementia. Several observations have emphasized the oxidative stress hypothesis for early onset and sporadic Alzheimer's disease. Selenium is a potent antioxidant and functions by being a component of various selenoproteins. Even under severe selenium deficient conditions, the brain retains selenium for its proper functioning. Preliminary studies in plasma showed decrease in the levels of selenium and selenoproteins in Alzheimer's disease patients. Hence the present study was formulated with the main objective of analyzing selenium, selenoproteins in the CSF of Alzheimer's patients and correlating with the plasma levels and also with the established markers of AD namely β -amyloid and p-tau. These parameters will be analyzed in 50 cases of Alzheimer's and vascular dementia patients and in equal number of age matched controls. The patients for the study will be recruited from Govt. General Hospital and Medical College (MMC), Chennai. The proposed study is approved by the Institutional Ethical Committee of MMC and informed consent will be obtained from the patients. Selenoenzymes like glutathione peroxidase and thioredoxin reductase will be analysed by suitable spectrophotometric procedures while other selenoproteins will be quantified by immunoprecipitation followed by western blotting. β -amyloid and p-tau will be quantified by ELISA. SEL P gene polymorphism will be assessed by PCR-RFLP. Analysis of expression of CSF selenoproteins and studying their correlation with the levels in plasma of AD patients will help to identify the role of selenoproteins in pathology of AD and their importance in differential diagnosis of AD

BIOMEMS device for separation of bioparticles

This work would focus on developing a continuous dielectrophoretic device for separation of particles (cells and bioparticles). Biological sample will be transported through the non-uniform electric field. If the particle gets polarized greater than the surrounding medium at a given frequency, the particle will be attracted to the regions of higher field gradient, termed as positive dielectrophoresis and if vice-versa occurs it is termed as negative dielectrophoresis. Based on the differences in their dielectrophoretic property the bioparticles can be separated.

This involves selecting and designing a device with appropriate microfluidic channels and an approximate flow rate and voltage required for separation using simulation software (COMSOL). This is followed by fabrication of the device on various materials (like glass and silicon) using micro

fabrication techniques. The fabricated devices would then be characterized to ensure the stability of the device, and based on the stability studies the fabrication process may be modified. The fabricated device is then subjected to testing using sample fluids, after preliminary testing the device will then be packaged. Finally the packaged device will be subjected to optimization to standardize the flow rate and the voltage input that needs to be given in order to separate the particles (cells or bioparticles) of interest. The efficiency of the device is calculated using statistical techniques and cost analysis is studied for the devices fabricated on each of the substrates. The same patterns can be extrapolated to form larger arrays to cater industrial needs and larger volumes.

Development of porous scaffold for bone implant

Bone replacement is inevitable when severe bone damages occur due to trauma, tumor resection or congenital disorders. Numerous scaffold materials are available such as stainless steel, titanium, polymer-ceramic composite and alike. This project aims in developing a bioresorbable orthopedic scaffold, the gradual degradation of which will be simultaneously compensated by the deposition of native bone cells. Numerous CAD (computer-aided design) models of the scaffold are developed using Solidworks software. The mechanical properties of the models, substituted to have the properties of Hydroxyapatite/tricalcium phosphate are simulated using ANSYS software. The better models are designed using Rapid Prototyping Technique. The scaffold prototypes are then tested using osteosarcoma cell line, MG 63 for its biocompatibility. The best scaffold is finally implanted in the rat model for further validation.

Vetiver Based Treatment System for Textile Industry Wastewater

The various steps involved in the processing of textiles generate enormous amounts of waste that pollute the environment, mainly soil and water. Every single kilograms of the finished textile consumes about 100 L of water. The very high amount of water consumption by the textile industry necessitates the reuse of water. Textile industry wastewaters are characterized by colour, total dissolved solids, toxic metals, residual chlorine, BOD/COD, etc. Presence of metals, especially iron and manganese, colour and turbidity are the major constraint towards the reuse of the wastewater. The current treatment methods for textile industry wastewater include use of adsorption and membrane filtration methods, including reverse osmosis, ultra-filtration and/or nano-filtration along with primary treatment for the removal of metals, hardness and colour. The cost as well as the inefficiency/improper usage of the various treatment systems have led to environmental problems in the areas around the industries. This project aims to develop a plant-microbe based biological system for the complete and safe treatment of the textile industry wastewater using vetiver and microorganisms and by modifying the anaerobic/aerobic cycles of treatment, ensure that there is complete degradation of dyes and TSS, BOD, COD, metals, etc., so that the water could be reused by the industry. This project is pursued with interactions with two textile industries - M/s SCM Textile Processing Mills, Erode, Tamil Nadu and M/s Dinesh Process, Tirupur, Tamil Nadu, who have both agreed to allow us to conduct the experiments and field trials in their premises.

Pilot Scale Demonstration of a Novel Water Defluoridation Unit for Rural Areas

The existing technologies for defluoridation generate as much as 60% of feed water as rejects which require specialized disposal. The methodology involves use of solid liquid contactors (SLCs) with static mixers and plate settlers wherein feed water and recycled reject are mixed to precipitate fluoride followed by reverse osmosis. The RO rejects are re-circulated through the SLCs. This would reduce reject volume requiring further treatment. Water subjected to RO treatments usually has very less amount of various chemical components, especially calcium, magnesium, sodium, chloride, copper and selenium that have proven health impacts. Drinking water could provide up to 20% of the dietary requirements of calcium and magnesium (Olivares and Uauy, 2005). Membrane filtered waters usually are devoid of these chemicals and have to be stabilized by the addition of lime and/or blending with source water (Cotruvo, 2005) It is proposed to develop a water defluoridation

technology with continuous recirculation of RO reject which can lead to the enrichment of minerals in the feed water to the RO system. Thus the RO permeate will have sufficient amount of minerals and would not require any further addition of mineral making it fit for drinking.

Studies on omega 3 desaturase genes in *Sesamum indicum* L. to improve its oil quality

The main focus of the proposal was improving the oil quality of sesame seed with omega 3 fatty acid. Omega-3 fatty acids have been shown to significantly reduce the risk for sudden death caused by cardiac arrhythmias. Higher dosages of ω 3 fatty acids (2-4g /day) are required to reduce elevated triglyceride levels and blood pressure modestly. *Sesamum indicum* L. is an important oilseed crop widely cultivated in India. In cultivated sesame, seed oil content ranged from 40.4% to 59.8%. At present, the vegetable oils are poor sources of ω 3 with the exception of linseed. The proposed study is aimed at understanding the ω 3 desaturases of sesame in order to exploit them for the over expression of ω 3 fatty acids. Omega3 fatty acids may be better absorbed from food than supplements hence production of ω 3 enriched food becomes vital.

Study on RAGE -amyloid interactions with relevance to AD pathology and influence of G82S RAGE polymorphism on the above interaction.

Alzheimer's disease (AD) is the most prevalent form of dementia. In India there are 3.7 million people with dementia and it is expected to double by 2030 (Dementia India Report, 2010). Oxidative stress and pro-inflammatory reactions play a pivotal role in its pathogenesis. Aging is also a main cause of neurodegeneration, where non enzymatic glycation of proteins and carbohydrates increases significantly, forming advanced glycation end products (AGE) (Ramaswamy et. al., 2005). Immunochemical studies have demonstrated the presence of AGE's in both senile plaques and neurofibrillary tangles (NFT) in AD patients (Smith et al., 1994). AGEs bind to its receptor RAGE (Receptor for advanced glycation end products) which is a multiligand signal transduction receptor of the immunoglobulin superfamily. Apart from AGEs, A β peptides are also reported to bind to RAGE (Yan et al., 1996). RAGE acts as transporter of A β from blood to brain across the blood brain barrier (Deane et al., 2009). The binding of A β /AGEs to RAGE generates oxidative stress and produces pro-inflammatory cytokines via the NF- κ B pathway (Stern et al., 2002). Polymorphism in ligand binding domain of RAGE might alter its binding affinity to A β and would possibly modulate the inflammatory response. Li et al. (2010) and Daborg et al. (2010) reported an association between G82S polymorphism and development of AD.

In our previous study, docking and molecular dynamic analysis of RAGE with different forms (monomeric and fibrillar) of A β indicated that the G82S polymorphism has increased the affinity of RAGE towards fibrillar form of A β (Sreeram et al., 2014). Hence, the current work is aimed to analyse RAGE- A β interactions and also to evaluate the influence of G82S polymorphism of RAGE on A β interaction and its relation to AD pathology.

The results of the study will highlight the following aspects,

- i. RAGE as a high affinity receptor for A β .
- ii. A mechanistic view for association of G82S RAGE polymorphism with Alzheimer's disease
- iii. This could also lead to the development of blocking peptide for RAGE as a lead therapeutic molecule for AD and other inflammatory disorders.

Ultrasound assisted biomass derived heterogeneous catalytic system for biodiesel production from non-edible oils.

Depletion of fossil fuel, high crude oil price in the world market, environmental concern and energy security lead researchers to focus towards an alternative fuel which is not only renewable but also sustainable. Biodiesel is considered as one of the most alternative fuel for diesel engines which can be produced from renewable sources and it is biodegradable, nontoxic and environmentally friendly. It can be used directly or blended with conventional diesel for the application of diesel engine

without the need of extensive engine modifications and it has been found that blending of biodiesel with conventional diesel reduces the emission of particulate matters, hydrocarbons and carbon monoxide. However, high feedstock cost is one of the major barriers in expansion and application of biodiesel for commercial viability. In addition to this, technology advancement is needed at present to reduce the process cost. The present study aimed at exploring the possibility of underutilized non-edible crop as feedstock for biodiesel production using biomass derived heterogeneous catalysts.

3.3. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Mr. K. Sreeram	Selenoproteins and antioxidants in pathogenesis of Alzheimer's disease	Dr. P. Rani Professor Dept. of Biotechnology PSG CT, Coimbatore	2008 In Progress
2	Mr.M. Mohamed Kashith	Biofuel from microalgae	Dr. V. Ramamurthy Professor Dept .of Biotechnology, PSG CT, Coimbatore	2012 In progress
3	Ms. Muthu lakshmi	Transgenic approaches to modify sesame for omega 3 fatty acid production	Dr Selvi Subramanian Professor, Department of Biotechnology , PSGCT, Coimbatore	2013 In progress
4	Ms. Rani Catherine	Study on RAGE- Amyloid interactions with relevance to Alzheimer's Disease (AD) pathology & influence of G82S polymorphism in the above interaction	Dr. P. Rani Professor Dept .of Biotechnology PSG CT, Coimbatore	2014 In progress
5	Ms. K. Banu Pradheepa	Study on role of surface roughness and cell structures in Biomaterial Associated infections	Dr. M. Anantha subramanian Professor and Head Dept. of Biotechnology, PSG CT	2014 In Progress
6	Mr. G. Karthik Vijayakumar	Approaches to modification of agricultural residues for energy applications	Dr. V. Ramamurthy Professor Dept. of Biotechnology, PSG CT,	2014 In progress
7	Ms.J.Mohana priya	Vetiver based Treatment System for Textile Industry Wastewater	Dr.J. Hema Associate Professor Dept. of Biotechnology, PSG CT,	2015, In Progress

3.4. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
1	Dr. S. Vidyalakshmi Dr.C.Sabarath	St.James College of Pharmaceutical Science, Thrissur	Cytotoxicity assay	0.26

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
		Cellzyme Biotech India (P) Ltd.,Coimbatore, Senthil Papain & food products,Coimbatore. Pricol Ltd,Coimbatore		
2	Dr. C. Sabarinath	Cellzyme Biotech India (P) Ltd., Senthil Papain & food products,Coimbatore BTech Fashion Technology, PSGCT	HPLC testing	0.40

3.5. Library

S. No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	149	-	-	-	-	-
2	GRD Library - Department of Biotechnology	4801	457	23	0	10	-

3.6. Board of studies

S. No.	Date	Agenda	External experts
1	10.10.2015	1. Scheme of BTech Biotechnology 2015 regulations 2. Detailed discussion on syllabi for all courses 3. Elective and one credit courses for 2015 regulations	1. Dr.K.B.Ramachandran Emeritus Professor Department of Biotechnology IITM, Chennai. 2. Dr.Sudha Narayana Rao Executive Director Genotype Technology Private Limited Bangalore -94.
2	02.04.2016	1. Finalization of detailed syllabi for BTech Biotechnology 2. Introduction of new electives, Research Electives & one credit courses for UG/ PG	1. Dr.K.B.Ramachandran Emeritus Professor Department of Biotechnology IITM, Chennai.

3.7. Research publications

3.7.1. Papers published in international journals

1. Eswararao Y, Niju S, Meera Sheriffa Begum KM, Anantharaman N, Malik Raj S, "Transesterification of jatropha oil using a mixture of natural shells as solid catalyst", *Biofuels: An international Journal*, 2016.
2. Anjana PS, Niju S, Meera Sheriffa Begum KM, Anantharaman N, Anand R, Babu D, "Studies on biodiesel production from pongamia oil using heterogeneous catalyst and its effect on diesel engine performance and emission characteristics", *Biofuels: An international Journal*, 2016.
3. Angeline Kiruba D, Saranya S, Ananthasubramanian M, "Growth kinetics and stability assessment of siphoviridae like Campylobacter phages", *Journal of Chemical and Pharmaceutical Research*, Volume 8, 2016, Pages 46-55.

4. Banu Pradheepa Kamarajan, Saranya Thankappan, Anathasubramanian Muthusamy, "Relevance of Surface Asperities in Scheming Cellular Attachment to Minimize Biomaterial Associated InfectionsM", *Trends in Biomaterials and Artificial Organs: An International Journal*, Vol. 29, 2015.
5. Rani P, Merlin Rajesh Lal, Uma Maheshwari, & Sreeram Krishnan, 'Antioxidant Potential of Lingzhi or Reishi Medicinal Mushroom, Ganoderma lucidum (Higher Basidiomycetes) Cultivated on Artocarpus heterophyllus Sawdust Substrate in India', *International Journal of Medicinal Mushrooms*, 17(12): 1171–1177, 2015.
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3.7.2. Papers published in national journals

1. Vidyalakshmi Subramanian, Dhamodharan Sahithya, "Preliminary screening of selected plant extracts for Anti Tyrosinase activity" , *Journal of Natural Remedies*, 2016. DOI: 10.18311/jnr/2016/488.

3.7.3. Papers presented in international conferences

1. M. Satheesh Kumar, S. Sarathbabu, N. Senthil Kumar and S Selvi, "Molecular Characterization of piersin genes and investigation on their anti-cancer properties", 6th *International Conference on Stem cells and Cancer (ICSCC-2015): Proliferation, Differentiation and Apoptosis*, October 2015.
2. J. Brindha, RA. G. Privita Edwina, P. K. Rajesh, P. Rani, "Influence of rheological properties of protein bioinks on printability", *Materials Today proceedings of International Conference on Advances in Bioprocess Engineering and Technology 2016 (ICABET 2016)*, January 2016.

3.7.4. Papers presented in national conferences

1. J. Poongothai and N. Arthi, "Mitochondrial DNA mutations in diabetic infertile men", *Proceedings of 5th Annual Conference of the SMRM-2015 on Mitochondria in Cancer and Neurodegenerative Disorders*, November 2015.

3.8. Visits Abroad

3.8.1. Visits by faculty

S.No.	Name of faculty	Place of visit	Period	Purpose
1.	Dr.C.Sabarinath	Victoria University, Melbourne, Australia	Oct 2015 - Feb 2016	Internship
2.	Ms.R.Ramalakshmi	Department of Medicine and genetics, University of North Carolina at Chapel Hill	Nov 2015 - Aug 2016	Internship

3.8.2. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1	Ms. G.Anagadevi	Mote Marine Laboratory, South Florida, USA	Jan 2016- June 2016	Project internship
2	Ms. R. Sangeetha	National University of Singapore, Singapore	Dec 2015 -May 21016	Project internship
3	Ms. G. Vinodhini	National University of Singapore, Singapore	Dec 2015--May 21016	Project internship
4	Ms. C. Sadvika	University of Leeds	02.07.2016-31.07.2016	Internship

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	B Tech Biotechnology - I Year	55
2	B Tech Biotechnology - II Year	53
3	B Tech Biotechnology - III Year	48
4	B Tech Biotechnology - IV Year	54
5	M Tech Biotechnology - I Year	6
6	M Tech Biotechnology - II Year	15

4.2. Association activity

S.No.	Topic	Chief guest and affiliation	No. of participants	Date
1	Introduction of BTA to first year B.Tech students College tour to first year B Tech	-	52	20.07.2015
2	Short Movie Screening -The Atom and Biological Science	-	98	21.08.2015
3	Alumni talk	Mr. Hemanth Prabhakar		18.08.2015
4	Internship Experience	Ms. G. Reshma	35	17.08.2015
		Ms. G. Vinodhini	40	25.08.2015
5	Microphotography Contest	-	5	17.09.2015
6	Video Screening -Stella Young	-	40	09.02.2016
7	Forensist -KRIYA 2016	-	83	13.02.2016
8	Confessions of a Physicist	Dr. Shasidar Nair, Professor and Head, Dept of Applied Science, PSGCT	60	18.02.2016
9	Introducing about awards and clubs to first and second year UG students	Mr. Gokul, Ms. Kalaivani, Ms. Kiruthika Devi R, Mr. Deepak, Mr. Kowthamraj T N	40	19.02.2016
10	Guest lecture	Dr Parthiban, Professor and Head, Dept of Tree Breeding, Forest College and Research Institute, Mettupalayam	60	04.03.2016

S.No.	Topic	Chief guest and affiliation	No. of participants	Date
11	Release of BTA magazine	Dr. V. Ramamurthy Professor, Dept of Biotechnology, PSG CT, Coimbatore	120	20.04.2016

4.3. Co-curricular and extra-curricular activities

S.No.	Nature of activity	No. of students	No. of awards
1	Paper presentation	28	4
2	Poster presentation	7	
3	KRIYA-2k16	2	-
4	Minimarathon, 2016	16	1
5	KICS' 2015 -KHO-KHO	1	1
6	Trekking to Top slip	3	
7	SRC	5	1
8	Sustainable development campaign	3	-
9	Voice for BT organized by Novozymes South Asia Pvt Ltd	1	-
10	QEEE program "Structure Bonding and reactivity in organic molecules"	14	-
11	QEEE program "Chemical reactor design"	26	-
12	Mega plantation event organized VER -A youth organization	3	-
13	Arm wrestling -INTRAMS 2015	1	1
14	Annual sports meet 2016 -Running	1	1
15	Annual sports meet 2016 -High jump	1	1
16	Annual sports meet 2016 -4x400 relay	1	1
17	Annual sports meet 2016 -4x100 relay	1	1
18	6th Centies Championship-kho-kho	1	1
19	Trekking to Thirumoorthi hills	11	-
20	KCT TROPHY	2	3
21	6th Centies Championship-RUNNING	1	1
22	6th Centies Championship- Volleyball	1	1
23	Yugam 2k16 - fun with sequences & career with life sciences	1	-
24	BIOTECHECELENCE 2K16	21	-
25	Ramanujan Association of Mathematics	55	-
26	KCT trophy	1	1
27	Intrameral 400 m	1	1
28	Intrameral relay	1	1
29	Dr.K.Venkataraman Award for "Excellence In Engineering Graphics" (Non-Mechanical Stream)	1	1
30	Quilling competition conducted by Rotract club	1	1
31	Tug of war, conducted by martial arts club 2015 - 16	1	1
32	Photography contest conducted by NSS	1	1

4.4. Awards won by students

S.No.	Roll No	Name of Student	Event	Award	Awarded by	Date
1	12B207	Gokul K	INTRAMS - Arm Wrestling (Men -70 kg)	I	PSG CT, Coimbatore	19.09.2015-20.09.2015
2	12B227	Pavithra S	Annual sports meet 2016 -Running-200 m	III	PSG College of Technology, Coimbatore	08.03.2016
			Annual sports meet 2016 -High jump	III		08.03.2016
			Annual sports meet 2016 -4x400 relay	I		08.03.2016
			Annual sports meet 2016 -4x100 relay	I		08.03.2016
			Minimarathon, 2016	12 th place		28.02.2016
			KICS' 2015 -KHO-KHO	II	KCT, Coimbatore	15.08.2015-17.08.2015
3	14B253	Usha Rani.S	Intramural 400 m	III	PSG CT, Coimbatore	08.03.2016
			Intramural relay	II	PSG CT, Coimbatore	08.03.2016
			Centies- Kho Kho	I	PSG CT, Coimbatore	30.01.2016
4	14B239	Ranjithragavan.M	Dr.K.Venkataraman Award for "Excellence In Engineering Graphics" (Non-Mechanical Stream)	II	PSG CT, Coimbatore	18.07.2015
5	14B238	M.Rajeshwari	Tug of war, conducted by martial arts club 2015-16	I	PSG CT, Coimbatore	20.09.2015
6	14B217	R.Ishwarya	Quilling competition conducted by rotract club	I	PSG CT, Coimbatore	10.03.2016
7	14B206	R.Aishwarya Rajalakshmi	Photography contest conducted by NSS	I	PSG CT, Coimbatore	24.09.2015
8	13B203	Anesha Chandrashekar	Paper presentation	I	National level technical symposium CECRI, Karaikudi	06.02.2016
9	13B202	V. Ananthi	Paper Presentation	III	Ramanujam Association of Mathematics, PSG CT	22.12.2015
10	13B230	R. Priyadharshini	Paper Presentation	III		22.12.2015
11	13B231	Priyanka Rajan	Paper Presentation	I		22.12.2015
12	14B431	V. Barath	Young Kalam	I	SRC PSG CT	19.09.2015-20.09.2015

4.5. Final year project work

4.5.1. UG project (regular)

S.No.	Roll No.	Name of Student	Title of the project	Guide	Industry /Institute associated
1	12B201	D. Aathithya	Computational fluid dynamic studies on Biofiltration reactor	Ms. N. Kalaiarasi	-
2	12B202	D. Anaga Devi	Screening and identification of antibiotic producing bacteria from stringray epidermal mucus	Dr. M. Anantha subramanian External guide: Dr. Kim Beach Ritchie	MOTE marine laboratory, Florida, United State
3	12B203	J.Carmel Jeeva	Identification of unique epitopes of tropomyosin for species specific diagnosis of shell fish allergy	Ms.G Hemashree	-
4	12B204 12B218 12B239 13B434	V.Chandra Kumari Tn. Kowthamraaj K.Santhanalaxmi M. Tamizharasan	Optimization of chemical pre-treatment method for Lignocellulosic biomass	Mr. G. Karthik Vijayakumar	-
5	12B205 12B246	D.Deepak, Sree Vilashini Arjunan	Cloning of full length RAGE from peripheral blood mononuclear cells	Dr. P. Rani	-
6	12B206 12B237 12B244	P. Geetha, M. Samyugdha P. Sowmiyaa	Challenges in delineating pathogenic mutations	Dr. Selvi Subramanian External guide: Dr. Chellappa Gopalakrishnan	Kovai Biosciences, Coimbatore
7	12B207	K. Gokul	Study on enhancing iron content in <i>Spirulina</i> .	Dr.V.Rama murthy	-
8	12B208	A.Hanuvardhini	Identification of unique epitopes of parvalbumin for species specific diagnosis of fish allergy	Ms.G Hemashree	-
9	12B209 12B229	R. Hemamlini P. Preethi	Mass production of AM fungi using cocopeat.	Dr. S. Jayanthi	-
10	12B210 12B214 12B226	R. Himaya, K. Kalaiselvi K. Nivedhitha	Heterogeneous catalyst development for biodiesel production	Dr. S. Niju	-
11	12B211	R. Indhumathi	Design, synthesis, expression and purification of synthetic antigen (RMRCAG4) for diagnosis of lymphatic flariasis	Dr. Ansel Vishal L External guide: Dr. S .L. Hoti	Regional medical research centre, Belgaum
12	12B213 12B240	Joseph Jose K. Sandhiya	Insertional sequence based analysis of clinical isolates with NDM(blaNDM 1 gene) resistance	Dr. S. Jayanthi	-
13	12B215	M. Kalaivani	Analysis and optimisation of droplet formation of bio-inks for inkjet printing	Dr. P. Rani	-

S.No.	Roll No.	Name of Student	Title of the project	Guide	Industry /Institute associated
14	12B216 12B232	K. Keerthana P. Ranjith	Evaluation of nutrients of dried <i>Carcia papaya</i> peel powder and to study the effect of its incorporation on wheat cookies	Dr. J. Poongothai External guide: Dr. Soumen Mukerjee	Senthil Papain and Food products Ltd, Coimbatore
15	12B217 12B225 12B247	R. Kiruthikadevi Nivedh.S.Kumar C. Sridevi Kalaranjani	Water quality analysis and correlation with water hyacinth growth in two ponds in Coimbatore	Dr. J. Hema	-
16	12B220	N.Mahesh Kumar	Levels of select non steroidal anti-inflammatory drugs (NSAIDs) in cattle carcasses and the impact on free ranging vultures in Gujarat	Dr. J Hema External guide: Dr.S.Muralidharan	Salim Ali Centre for ornithology and natural history, Coimbatore
17	12B221 12B251	P. Manisha Taslma Nasreen	Estimation of oxidative stress markers and granulocyte colony stimulating factor in serum and follicular fluid of women undergoing invitro fertilization.	Dr. S. Vidya lakshmi	-
18	12B222	G. Matheswari	Study of expression pattern of genes encoding antioxidant enzymes in bovine and ovine oocytes and pre-implantation embryos	Dr. S. Vidya lakshmi	TANUVAS, Chennai
19	12B224	S. Niranjani	Meta analyses of serous ovarian cancer validates its association to cell cycle pathways	Ms.G.Hemashree	-
20	12B227	S. Pavithra	Y Chromosome micro deletion in infertile male	Dr. J. Poongothai	-
21	12B228	S. Pavithra	Quantification of α -linolenic acid, sesamin and sesamol in sesame varieties and landraces in Tamilnadu	Dr. Selvi Subramanian	-
22	12B230 13B432 13B435	S. Priyanga K. Tamilarasan I. Varshini	Preparation of solid catalyst and its application in biodiesel production	Dr. S. Niju	-
23	12B231 12B254	S. Ram Kumar M. Vishal	Microbial fuel cells using algae	Dr. V. Ramamurthy	-
24	12B234	G. Reshma	Cloning and expression of mannanase in <i>Bacillus subtilis</i>	Dr. P. Rani External guide: Mrs. Rakhi Saikia	Novozymes South Asia Pvt, Ltd, Bengaluru
25	12B235	Rithika Chandrasekhar	Prediction of the interactions in protein dimers using large scale protein-protein docking	Ms. G. Hema shree	NCBS, Bengaluru

S.No.	Roll No.	Name of Student	Title of the project	Guide	Industry /Institute associated
				External guide: Dr Sowdhamini Oommen K Mathew	
26	12B238	R. Sangeetha	Cloning, expression and crystal structure determination of HES-1, a transcriptional repressor protein in complex with DNA	Dr. P. Rani External guide: Dr. K. Swaminathan	National university of Singapore, Singapore
27	12B242	M.Shanmugapriya	Retrospective analysis on the factors responsible for the success of intrauterine insemination	Dr.S.Vidyalakshmi	-
28	12B243	M. Shobana	Analysis of aromatic amines in a sequential anaerobic-aerobic treatment using plant microbe integrated system	Dr. J. Hema	-
29	12B248	P. Suganya	Extraction of flavonoids from <i>Carcia papaya</i> leaves and commercializing in the form of bread for dengue patients	Dr. J. Poongothai External guide: Dr. Soumen Mukerjee	Senthil Papain and Food products ltd, Coimbatore
30	12B249	P. Suriya	Synthesis and characterisation of phytofunctionalised gold nanoparticles and study of its antibacterial property	Dr. Ansel Vishal L External guide: Dr. T. Devasena	Centre for Nano technology, Anna University
31	12B250	P. Suvitha Nandhini	A ¹³ C NMR investigation of pentose phosphate pathway flux in social defeat model of depression	Dr. S. Jayanthi External guide: Dr. Anant B Patel	Centre for cellular and Molecular biology, Hyderabad
32	12B252	S. Vijay	A GFP- based bacterial biosensor with chromosomally integrated sensing cassette for quantitative detection of zinc in environment	Dr. C. Sabarinath External guide: Dr. Aparna Chaudri	Fish Genetics and Biotechnology division, ICAR-CIFE, Mumbai
33	12B253	G. Vinodhini	Structure-function relationship studies of anticoagulant peptides	Dr. P. Rani External guide: Dr.R.Manjunatha Kini	National university of Singapore, Singapore
34	12B255	P. Vishnupriya	Screening for mitochondrial DNA deletions in neuromuscular patients	Dr. J. Poongothai External guide: Dr. Govindraj	NIMHANS, Bengaluru
35	12B256	Vivekhadahrshini	Studying cerebellar circuit function by reconstructing local field potentials (LFPs)	Ms.G Hemashree External guide: Dr. Shyam	Computational Neuroscience Laboratory,

S.No.	Roll No.	Name of Student	Title of the project	Guide	Industry /Institute associated
				Diwakar	Amrita School of Biotechnology Amrita Vishwa Vidyapeetham Kollam
36	13B431 13B433	Karthick V Tamilselvan T	Design of photocatalytic fluidized bed reactor for degradation of organic pollutant in textile wastewater	Ms. N. Kalaiarasi	-

4.5.2. PG project

S.No.	Roll No.	Name of Student	Title of the project	Guide	Industry /Institute associated
1	14MG01	Ashwin. A	Role of mitochondrial genes in fatty acid desaturation in sesame	Dr.Selvi Subramanian	-
2	14MG02	Bhanu Priya V	Bioplastics from agricultural residues	Mr. G. Karthick Vijayakumar	-
3	14MG03	Gokul Priya C	Enhancing Fe and Zn content in Spirulina	Dr.V.Ramamurthy	-
4	14MG04 14MG13	Hamsha Varshini S Shenbagam P	Biochemical parameters of saliva	Dr.C.Sabarinath	Aries Biomed Pvt. Ltd., Coimbatore
5	14MG05	Indhumathi J	Preparation of Bio-fuels from non-edible feedstock	Dr.S.Niju	-
6	14MG06	Jeevethapriya M	Generation of a stable cell line over expressing transcription factor TWIST- 1	Dr.S. Vidyalakshmi	-
7	14MG07	Kandhan S	Peroxidase from local resource	Dr.V. Ramamurthy	-
8	14MG08	Manoj Kumar S	Textile industry wastewater treatment	Dr. J. Hema	-
9	14MG09	Manormani S	Screening of some Type II Diabetes susceptible genetic loci in Tamil Nadu Population	Dr.J. Poongothai	-
10	14MG10	Narayanan M	Identification of RAGE spice variants in Alzheimer's disease	Dr.P. Rani	-
11	14MG11	Perinba Danisha	Toxicity of Azo Dyes and its Degradation Products	Dr. J. Hema	-
12	14MG12	Revathi L	Marker Assisted selection of growth habit in Solanaceous crops	Dr.S. Jayanthi	-

S.No.	Roll No.	Name of Student	Title of the project	Guide	Industry /Institute associated
13	14MG14	Sumitha Saseendram	Identification of factors contributing to Abiotic stress tolerance in plants	Ms. G. Hemashree	-
14	14MG31	Haritha S	Study on role of surface roughness in cell attachment	Dr.M.Anantha subramanian	-

4.6. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
			Roll. No.	Name
1.	GATE	20	12B204	Chandrakumari V
			12B213	Joseph Jose
			12B237	Samyugdha V M
			12B238	Sangeetha R
			12B240	Santhiya K
			12B249	Suriya P
			12B252	Vijay S
			12B253	Vinodhini G
			12B254	Vishal M
			12B255	Vishnupriya G
2.	GRE	3	12B215	Kalaivani M
			12B246	Sree Vilashini Arjunan
			12B250	Suvitha Nandhini L
3.	CAT	1	12B239	Santhanalaxmi K
4.	TANCET	14	12B201	Aathithya D
			12B209	Hemamalini R
			12B210	Himaya R
			12B221	Manisha P
			12B226	Nivethitha K
			12B239	Santhanalaxmi K
			12B240	Santhiya K
12B252	Vijay S			

4.7. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	Mu Sigma Business solutions, Bangalore	1	12B238	Sangeetha R	4.5
2.	Zifo technologies Pvt Ltd, Chennai	1	12B253	Vinodhini G	3.4
3.	Accenture Technologies, Bengaluru	12	12B220	Magesh kumar N	3.41
			12B222	Matheswari G	
			12B224	Nirranjani S	
			12B226	Nivedhitha K	

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
			12B234	Reshma G	
			12B240	Santhiya K	
			12B243	Shobana M	
			12B248	Sugunya S	
			12B251	Taslima Nasreen A	
			12B252	Vijay S	
			12B254	Vishal M	
			12B255	Vishnupriya G	
4.	Cognizant Technologies and Solutions, Chennai	5	12B206	Geetha P	3.35
			12B209	Hemamalini R	
			12B217	Kiruthika Devi R	
			12B221	Manisha P	
			12B232	Ranjith P	
5.	Infosys Technologies Ltd, Bengaluru	4	12B205	Deepak D	3.25
			12B211	Indumathi S	
			12B242	Shanmugapriya M	
			12B244	Sowmiyaa P	

4.8. Industrial training and project

4.8.1. Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1.	SCM textile processing mills, Coimbatore	7, PG-1 st sem	25.09.2015	Waste Management
2.	Senthil papain and food products limited Coimbatore	7, PG-1 st sem	14.11.2015	Downstream processing
3.	Sartorius India Pvt.Ltd.,	7, PG-2 nd sem	29.01.2016	Membrane Technology
4.	SAMI Labs Ltd, Bengaluru	7, PG-2 nd sem	29.01.2016	Downstream Processing
5.	SAMI Labs Ltd, Bengaluru	54, UG-7 th sem	31.07.2015	Extraction, Pharmaceutical products production
6.	Genotypic technologies Pvt Ltd, Bengaluru	54, UG-7 th sem	01.08.2015	Bioinformatics, NGS
7.	Sartorius Stadium India Pvt Ltd	48, UG- 4 th sem	28.01.2016	Membrane preparation
8.	SAMI Labs Ltd, Nelmangala	48, UG- 4 th sem	29.01.2016	Supercritical fluid extraction
9.	SALEM Microbes Pvt Ltd	50 UG-8 th sem & PG-2 nd sem	27.03.2016	Operation & sterilization of industrial reactors, Probiotics production

4.8.2. Short term training

S. No.	Name of company	No. of students & course	Period	Area of training
1.	Syngene International Ltd, Bangalore	1 UG-8 th Sem	05.06.2015 03.07.2015	In-vivo and in vitro pharmacology
2.	Jawaharlal Nehru Centre for Advanced Scientific research, Bangalore	1 UG-8 th Sem	May- June 2015	Gene regulation in Drosophila model for Huntington disease
3.	Grow More Biotech, Hozur	2 UG-6 th Sem	08.06.2015- 15.06.2015	Plant Tissue Culture
4.	Lovely Cards, Bangalore	1 UG-6 th Sem	09.05.2015- 10.06.2015	Costing and Estimation
5.	NIT, Calicut	1 UG-5 th Sem	17.11.2015- 29.11.2015	Microbiology
6.	Andhra Mahila Sabha hospital, Adyar, Chennai	1 UG-6 th Sem	04.06.2015- 06.06.2015	Biochemical and Microbiological analysis
7.	Hatsun, Madurai	2 UG-6 th Sem	19.05.2016- 04.06.2016	Quality Control and Production Unit
8.	TNAU HRS, Ooty	1 UG-6 th Sem	23.05.2016- 10.06.2016	Organic farming, mushroom training, biofertilizer production, biocontrol agents mass multiplication techniques
9.	Pasteur Institute, Conoor	11 UG-6 th Sem	01.06.2015- 06.06.2015	Vaccine Preparation- Rabies and DPT
10.	Sterling Biotech	2 UG-4 th Sem	06.06.2015- 13.06.2015	Pharmaceuticals

4.8.3. Project work / Internship

S.No.	Name of company	No. of students & course	Period	Area of work
1.	MOTE marine laboratory, Florida, United State	1 UG-8 th Sem	January2016- July 2016	Marine Microbiology
2.	Covai Bioscience, Coimbatore	3 UG-8 th Sem	December 2015 - April 2016	Bioinformatics
3.	Regional medical research centre, Belgaum	1 UG-8 th Sem		Molecular diagnostics
4.	Senthil Papain and Food products Ltd, Coimbatore	3 UG-8 th Sem		Product optimization and commercialization
5.	Salim Ali Centre for ornithology and natural history, Coimbatore	1 UG-8 th Sem		Environmental study
6.	TANUVAS, Chennai	1 UG-8 th Sem		December 2015- April 2016
7.	Novozymes South Asia Pvt, Ltd, Bengaluru	1 UG-8 th Sem	December2 015 - April 2016	Molecular biology and genetic engineering
8.	NCBS, Bengaluru	1 UG-8 th Sem		Bioinformatics
9.	National university of Singapore, Singapore	2 UG-8 th Sem		Protein chemistry and molecular biology
10.	Centre for Nanotechnology,	1		Nano-Biotechnology

S.No.	Name of company	No. of students & course	Period	Area of work
	Anna University	UG-8 th Sem		
11.	Centre for cellular and Molecular biology, Hyderabad	1 UG-8 th Sem		Animal study for depression
12.	Fish Genetics and Biotechnology division, ICAR-CIFE, Mumbai	1 UG-8 th Sem		Biosensors
13.	NIMHANS, Bengaluru	1 UG-8 th Sem	December 2015- April 2016	Mitochondrial genetics
14.	Computational Neuroscience Laboratory, Amrita School of Biotechnology, Amrita Vishwa Vidyapeetham, Kollam	1 UG-8 th Sem	December 2015-April 2016	Neuroscience
15.	IAS Summer Research Fellowship- Banaras Hindhu University, Varanasi	1 UG-6 th Sem	11.05.2016- 07.07 2016	Biochemical, molecular and phenotypic characterization of plant growth promoting microorganisms
16.	IAS/NASI/INSA Summer fellowship: INSTEM, Centre for Biological Sciences, NCBS, Bangalore	1 UG-6 th Sem	09.05.2015 - 03.07.2016	Neuroscience
17.	IAS Summer Research Fellowship-University of Delhi, Delhi	1 UG-6 th Sem	16.05.2016- 09.07.2016	Molecular Oncology

4.9. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1	Herald Wilson (11MG02)	Ph. D.	IIT Madras, Chennai
2	Aarthi N (10B202)	MTech	IIT Hyderabad, Hyderabad
3	Harshini B S (10B207)	MS	North Eastern University, Boston
4	Keerthana B (10B209)	MTech	IIT Hyderabad, Hyderabad
5	Shankar Kanna T (10B215)	MBA	Hof University, Germany
6	Sivabakkiyam P (10B216)	MTech	Anna University, Chennai
7	Suriya Narayanan M(10B218)	MTech	Anna University, Chennai
8	Tamilthendral T (10B220)	MTech	Anna University, Chennai
9	Yasodha Kannan S (10B222)	MTech	IIT Bombay, Mumbai
10	Annie Josephine (11B202)	MS	New York University, New York, USA
11	Geethaanjali V (11B204)	MS	University of Illinois, Urbana Campaign, USA
12	Hemanth Prabahar (11B205)	MS	University of Illinois, Urbana Campaign, USA
13	Karpagam U S (11B209)	MTech	IIT Hyderabad, Hyderabad
14	Keerthana B S (11B211)	MS	University of Würzburg, Germany
15	Madhuri M (11B212)	MS	Lund University, Sweden
16	Nikitha Navakshari N(11B214)	MS	University of Pittsburgh, USA
17	Priyanga G (11B218)	MTech	IIT Kharagpur, Kharagpur

S.No.	Name of student	Degree pursuing	University
18	Priyanga J (11B219)	MTech	Anna University, Chennai
19	Rathina Kiruthika S (11B221)	MBA	GRD College, Coimbatore
20	Tamil Ilakkiya K (11B227)	Msc Media	PSG CAS, Coimbatore
21	Yazhini A (11B229)	Ph. D.	IISc, Bangalore
22	Karthick S	Finishing School	Karnataka University

4.10. No. of students passed out

Year	UG	PG	Year	UG	PG
2004	17	-	2011	36	15
2005	27	-	2012	24	17
2006	26	-	2013	21	17
2007	31	-	2014	20	11
2008	31	14	2015	31	17
2009	29	17	2016	48	15
2010	30	15			

4.11. Alumni Achievements

S.No.	Name of Alumnus/Batch	Achievement/Award	Awarded by	Period
1	Ms. P. Kanimozhi BTech Biotech 2011	Young Scientist 2015	CavinKare Research Centre, Chennai	2015

5. SUMMARY

S. No.	Activity	No.	
1.	National conferences conducted	1	
2.	Workshops conducted	1	
3.	Sponsored research projects ongoing	5	
4.	Sponsored research projects completed till date	9	
5.	Scholars pursuing doctoral research	7	
6.	Doctorates produced till date	7	
7.	Papers published in international journals	10	
8.	Papers published in national journals	1	
9.	Papers presented in international conferences	2	
10.	Papers presented in national conferences	1	
11.	Books published	3	
12.	Awards won by faculty	2	
13.	Awards won by students	19	
14.	No. of. students passed out during 2014-15	UG	48
		PG	15
15.	No. of. students passed out till date	UG	371
		PG	138

DEPARTMENT OF FASHION TECHNOLOGY

ABOUT THE DEPARTMENT

The Department of Fashion Technology was constituted in the year 2007. It offers the following undergraduate programme:

- Bachelor of Technology - B.Tech. Fashion Technology (4 years)

B.Tech. Fashion Technology programme has been developed distinctively to train the students to strive and excel in understanding and integrating the areas of technology and management for apparel manufacturing. The programme will develop complete professionals for the apparel industry with wide competence in the entire range of functions in the industry and in addition to the specialization in a particular function to meet their individual needs and aspirations. Students undertake project work in the final year which helps them invariably in developing in-depth knowledge, creative thinking, innovative approach, research aptitude and team spirit.

The department has well equipped laboratories with modern machinery and equipments. The Pattern engineering laboratory is well equipped with a large number of cork top tables, mannequins and dress forms for all standard sizes (Indian, American and European), where the students practice various pattern drafting and draping techniques. The Garment manufacturing laboratory has a wide range of Industrial sewing machinery which comprises of Single needle lock stitch machines, Over lock machines, Flat lock machines, Button holing machines, Button fixing machines and Computerized embroidery machines. The Fashion CAD laboratory trains the students in enhancing their creativity in fashion designing with the help of softwares like Adobe Photoshop, Adobe Illustrator, Corel Draw and Color Matters software. This laboratory also offers internet browsing facilities to all the students. This bonanza helps the students in catching up with the latest trends in fashion. It also has 15 licenses of the world's leading fashion forecasting website www.wgsn.com.

The Surface ornamentation laboratory is well equipped with computerized embroidery machine with Wilcom software, Ultrasonic stone fixing machine, Flock printing machine and Stitch magic machines. This lab will enhance the surface ornamentation and accessories designing skills of the students. Apparel quality evaluation lab is equipped with equipments for testing of fabrics and apparel safety testing. The Fabric testing includes abrasion, pilling, sublimation fastness, drape and perspiration fastness. Mechanical properties of garment such as tearing and bursting strength can also be tested. Garment safety and accessories can be tested by using Snap pull, Zip endurance and Button impact testing. By using AATCC seam smoothness replicas, the garment seam appearance can be graded as per International standard.

The department has the proud privilege of having four centers of excellence in the campus whose details are given below:

PSG-LECTRA apparel CAD centre was established in collaboration with the leading manufacturers of apparel CAD systems, M/s. Lectra system of France, has the prized possession of the latest apparel CAD hardware like Digitizer and Plotter and Fabric and fashion CAD software such as Modaris, Diamino, Kaledo style, Kaledo knit, Kaledo weave, Kaledo print and Modaris 3D fit. The centre helps the students to augment their skills in designing pattern making, grading and marker planning. PSG-ASSYST BULLMER fashion studio was established in collaboration with M/s. Assyst Bullmer of Germany and M/s. Mehala machine works, Tirupur, has the pride of possessing 3D Fashion CAD software "Vidya" and the state-of-the-art 2D Fashion CAD software, "Assyst CAD" which are first of their kind. This centre provides the right platform for students in analysing virtual garment fitting and the fabric and garment characteristics influencing garment fit dynamically during movement simulation. PSG-SIRUBA mehala apparel machinery and equipments was established in

collaboration with M/s. Siruba, Taiwan and M/s. Mehala machine works, Tirupur is equipped with different types of industrial sewing machines and equipments. It is also equipped with special functional machines such as Double needle lock stitch machine with split needle bar, Cylinder bed flat lock machine, Over lock machine with back latch, Bar tack machine, Button Hole machine, Button fixing machine and Feed-off-the-arm machine . The students are well exposed to machine design, engineering and technological aspects of these machines and their various mechanisms and components. The department has an apparel resource centre with a good assortment of fabric swatches, accessories, trimmings and garments, designed and constructed by the students. The creations and collections in the apparel resource centre provide wide range of information to the students and the industries.

A brief on research activities

The department is carrying out research activities on Development of instruments for measuring friction & moisture management properties and Development of durable antimicrobial facemask using natural fungal extract for healthcare applications, where the funds are granted by sponsoring agencies like UGC, AICTE-RPS scheme etc. for a period of three years.

Major areas of research

- Healthcare textiles
- Herbal treated medicated textiles
- Development of multilayered knitted fabrics
- Functional finishes on textile materials
- Enzyme finishing on textile materials
- Organic textile product development
- Industrial Engineering in apparel sector
- Clothing comfort

A brief on consultancy and testing activities

The department is undertaking consultancy and testing activities in the areas of apparel testing, Designing of school uniforms, fabric design development for apparels and skill development on tailoring and embroidery.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr. P. Kandhavadi Ph.D. Associate Professor Head of the Department	pkv@fas.psgtech.ac.in	2009	Pattern engineering, Fabric manufacture, Knit wear technology, Quality assurance in apparel production, Knitting technology, Draping technology
2.	Dr. C. Vigneswaran Ph.D. Associate Professor	cvw@fas.psgtech.ac.in	2004	Fiber science, Spinning, Fabric manufacturing technology, Textile quality assurance, Clothing science, Garment construction, Apparel machinery, Apparel merchandising, Apparel costing, Apparel finishing

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
3.	Dr. R. Ramachandran Ph.D. Associate Professor	rrc@fas.psgtech.ac.in	2006	Spinning technology, Textile quality assurance & evaluation, Apparel production planning, Marketing & merchandising management, Entrepreneurship management, CAD in apparel manufacture
4.	Dr. P. Kanakaraj Ph.D. Assistant Professor (Selection Grade)	pkv@fas.psgtech.ac.in	2004	Knitting and weaving technology, Garment technology, Fabric structure & design, Home textiles
5.	Dr. K. Vellingiri Ph.D. Assistant Professor (Selection Grade)	rkv@fas.psgtech.ac.in	2006	Textile chemical processing Textile testing, Knitwear technology, Eco friendly textile chemical processing, Knitting technology, Yarn and fabric manufacturing technology
6.	Mr. K.Chandrasekaran M.Tech. Assistant Professor (Sr.Gr)	kcs@fas.psgtech.ac.in	2006	Spinning, Garment manufacturing technology, Medical textiles, Industrial engineering and management, Computer integrated apparel manufacturing, Apparel marketing & merchandising, Apparel work measurement
7.	Dr. M. Parthiban Ph.D. Assistant Professor (Sr.Gr)	mpn@fas.psgtech.ac.in	2007	Textile chemical processing, Textile physics, Functional apparels, Apparel finishing, Healthcare textiles
8.	Dr. V. Parthasarathi Ph.D. Assistant Professor (Sr.Gr)	vps@fas.psgtech.ac.in	2008	Merchandising, Apparel quality control, Man-made fibres, Nano finishing, Fabric structure and design, Textile testing, Healthcare textiles, Total quality management
9.	Ms. S. Sudha M.Tech. Assistant Professor (Sr.Gr)	ssd@fas.psgtech.ac.in	2008	Textile chemical processing, Testing and quality control of textiles, Apparel and garment construction, Fashion Designing, Computer integrated apparel manufacturing

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
10.	Dr.M.R.Srikrishnan, Ph.D. Assistant Professor (Sr.Gr)	mrsrikrishnan@yahoo.co.in	2010	Visual Merchandising, Clothing science and comfort, Technical textiles, Non-Woven's, Home textiles, Textile Manufacturing
11.	Mr.R.Surjit M.Tech. Assistant Professor (Sr.Gr)	rst@fas.psgtech.ac.in	2010	Textile testing & quality control, Total quality management, Merchandising, Any management subjects, Yarn technology
12.	Dr. R.Rathinamoorthy Ph.D. Assistant Professor (Sr.Gr)	rrm@fas.psgtech.ac.in	2009	Garment technology, Apparel Production & Planning, Apparel engineering, Industrial engineering concepts, Apparel machinery & equipment, Pattern engineering
13.	Ms.V.Yamuna M.Tech. Assistant Professor	vya@fas.psgtech.ac.in	2010	Garment construction, Pattern engineering, Clothing Science, Surface embellishments, Accessories and trims

2. FACULTY DEVELOPMENT

2.1 Higher study

S. No.	Name of faculty	Programme	Year of joining & status
1.	Dr. P. Kanakaraj	Ph.D .	2009, Completed
2.	Dr.K. Vellingiri	Ph.D .	2007, Completed
3.	Mr. K. Chandrasekaran	MBA	2007, Ongoing
		Ph.D .	2010, Ongoing
4.	Dr. M. Parthiban	Ph.D .	2008, Completed
5.	Dr. V. Parthasarathi	Ph.D .	2009, Completed
6.	Ms. S. Sudha	Ph.D.	2009, Ongoing
		MBA	2008, Ongoing
7.	Dr.M.R.Srikrishnan	Ph.D	2008, Completed
8.	Dr.R.Rathinamoorthy	Ph.D .	2009, Completed
9.	Mr.R.Surjit	Ph.D .	2010, Ongoing

2.2 Conference/ Workshop/ Training programme conducted by faculty

S.No	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr.P.Kandha vadivu Dr.R.Ramachandran Dr.P.Kanakaraj	National Convention on "3D for Haute Couture Fashion"	--	12.09.2015

S.No	Name of faculty	Title of programme	Collaborating agency (if any)	Period
2.	Dr.P.Kandhavadi Dr.M.Parthiban	Guest lecture on “STEP – Sustainability in Textile Production”	--	24.06. 2015
4.	Dr.P.Kandhavadi Dr.K.Vellingiri	Workshop on “Fashion Photography”	--	17.07. 2015
5.	Dr.P.Kandhavadi Dr.M.R.Srikrishnan	Workshop on “Visual Merchandising”	--	15.10. 2015
6.	Dr.P.Kandhavadi Ms.V.Yamuna	Workshop on “Fabric Painting”	--	12.10. 2015 & 13.10. 2015
7.	Dr.P.Kandhavadi Dr.V.Parthasarathi	Workshop on “Fabric sourcing for Branded Clothing”	--	08.01. 2016
8.		Workshop on “Conceptual Indian Folk Art Illustration’		30.01. 2016
9.	Dr.P.Kandhavadi Mr.R.Surjit	Guest lecture on “Career Opportunities in Supply chain Management”	--	01.02. 2016
10.		Workshop on “TRIZ – Tool for Creativity and Innovation”		04.02. 2016
11.	Dr.C.Vigneswaran Dr.M.Parthiban Dr.M.R.Sri Krishnan	National conference on “Sustainability in Fashion and Apparels – Challenges and Solutions”	--	13.02.2016
12.	Dr.P.Kandhavadi Ms.S.Sudha	Workshop on “Aari Embroidery”	--	19.03. 2016, 25.03. 2016, 26.03. 2016, 02.04. 2016 - 03.04. 2016
13.	Mr.K.Chandra sekar	Workshop on “Industrial Engineering Software Pro SMV”	TEQIP-II	27.02.2016, 12.03.2016, 21.03.2016 & 22.03.2016

2.3 Conference / Workshop/Training program attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1.	Dr.P.Kandhavadi Ms.S.Sudha	Workshop on “Holistic Professionalism”	PSG CT, Coimbatore	27.06.2015
2.	Ms.V.Yamuna	ISO Awareness Training programme	Dept. of Educational Technology Centre, PSG CT, Coimbatore	27.06.2015
3.	Dr.M.Parthiban Dr.M.R.Srikrishnan	Workshop on “Natural Fibre conclave 2015”	Confederation of Indian Textile Industry, Hotel Le Meriden, Coimbatore	22.07.2015
4.	Dr.R.Rathina moorthy	Participated on “BZZ WINGS – B-PLAN COMPETITION -2015”	IIM Bangalore (through PSG-STEP / PSG TECH E club), for the Pre-final round they have been invited for IIM Bangalore	08.08.2015- 09.08.2015

S.No.	Name of faculty	Programme	Organizer	Period
5.	Dr.K.Vellingiri	Attended "Spatial Visualization"	Mr.Vijay Tech Studios	04.12.2015
6.	Dr.M.R.Srikrishnan	Active Learning: Promoting engagement in the classroom	PSG CT, Coimbatore	04.12.2015
7.	Dr.P.Kandhavadi	Mentoring faculty towards effectiveness	PSG CT, Coimbatore	05.12.2015
8.	Dr.C.Vigneswaran	Train – The – Trainers (TTT) "Foundation Skills in Integrated Product Development (FSIPD)"	Commissioner of Technical Education, Tamil Nadu , Anna University, Chennai	23.11.2015 - 27.11.2015
9.	Dr.V.Parthasarathi	Industrial training on "Pattern Engineering"	M/s. Ragam exports, Tirupur	08.12.2015 - 10.12.2015
10.	Dr.P.Kandhavadi Ms.S.Sudha	Workshop on "Stage on the stage to guide on the side"	PSG CT, Coimbatore	12.12.2015
11.	Dr.M.Parthiban Dr.M.R.Srikrishnan	Joint Technological conference	SITRA, Coimbatore	30.12.2015
12.	Dr.P.Kanakaraj	TEQIP II sponsored course on "Foundation skills in integrated product development (FSIPD).	Anna University (NASS COM)	19.01.2016 - 23.01.2016
13.	Dr.M.Parthiban	All India Textile Conference	Textile Association of India	22.01.2016- 23.01.2016
14.	Dr.K.Vellingiri	Workshop on "Role of visualization in engineering education"	PSG Centre for academic research and excellence	04.12.2015 - 23.01.2016
15.	Mr.R.Surjit	Short term course on "Decision making models in operations and supply chain management"	IIT Delhi	15.02.2016- 19.02.2016
16.	Dr.P.Kanakaraj	Attended Seminar on "Warp knitting the technology for synthetic fabric" & Demo of Tricot warp knitting machine	M/s.Knitwear Technology mission, Tirupur	16.03.2016
17.	Dr.R.Rama chandran	29 th National Convention of Textile Engineers	Institution of Engineers India, Bengaluru	26.02.2016 - 27.02.2016
18.	Dr.R.Rama chandran	International conference on "Redefining textiles cutting edge technology of the future- RTCT 2016"	NIT, Jalandar	08.04.2016– 10.04.2016

2.4 Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Dr.C.Vigneswaran	Lecture	Apparel Production Technology	Bharathiar University, Coimbatore	06.10.2015

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
2.		Lecture	How to Write Technical Research Paper	PSG College of Arts and Science, Coimbatore	11.01.2016
3.	Dr.R.Rama chandran	Lecture	Basic Entrepreneurship Skills	Ministry of Textiles, GOI, Coimbatore	11.12.2015
4.		Lecture	Emerging Trends in Fashion Designing	Bharathiar University, Coimbatore	28.09.2015
5.	Dr.P.Kandha vadivu	Lecture	An Overview of Technical Textiles	Kumaraguru College of Technology, Coimbatore	16.11.2015

2.5 Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1.	Dr.P.Kandhavadivu	Referee for journals	Indian Journal of Polymers, Journal of Industrial Textiles, International Journal of Heat & Mass Transfer
2.		Question paper passing board member	Anna University, Chennai
3.			Bannariamman Institute of Technology, Sathyamangalam
4.			PSG College of Arts & Science, Coimbatore
5.		Board of Studies Member	Anna University, Chennai
6.			KSR College of Technology, Tiruchengode
7.			Lady Doak College, Madurai
8.	Dr.R.Ramachandran	Question paper passing board member	Periyar University, Salem
9.	Dr.C.Vigneswaran	Question paper passing board member	Anna University, Chennai

2.6 Books published

S.No.	Name of faculty	Details of the book
1.	Dr.C.Vigneswaran	Electronics in Textiles and Clothing, CRC Press, USA, December 2015
2.	Mr.R.Surjit & Dr.R. Rathinamoorthy	Apparel Machinery and Equipments, Woodhead publishing India Pvt. Ltd, June 2015
3.	Mr.R.Surjit, Dr.R. Rathinamoorthy, & Ms.K.J.Vishnuvardhini	ERP for Textiles and Apparel Industry, Woodhead publishing India Pvt Ltd, January 2016

3. DEPARTMENT ACTIVITIES

3.1 Equipment addition in existing laboratories (costing of ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1.	Apparel Quality Evaluation Lab	Colour matching cabinet	0.32
2.		Dimensional stability tester	0.42
3.		Torque tester	0.84
4.		Water bath Rectangular , Launderometer, Magnetic stirrer , Electronic balance , PH Meter	1.71
5.		Stretch & Recovery tester	0.86
6.		Sharp edge tester	1.52
7.		Small part cylinder	0.68
8.		Peel bond strength tester	0.49
9.		Flammability tester	0.80
10.		Lab Dyer 212	1.60
11.		Accu spray Crock meter	0.68
12.	Garment Construction Lab & Apparel machinery lab	Siruba two needle five thread overlock machine	1.13
13.		Siruba five thread flat bet top & bottom cover stitch	1.50
14.		Siruba single needle lock stitch machine	1.05
15.		Siruba two needle lock stitch machine	0.64
16.		Orbite 4" cutting machine	0.8
17.		Orbite high power straight knife cutting machine	0.22
18.		Siruba two needle five thread overlock machine	2.83
19.		Siruba direct drive single needle lock stitch machine	0.44
20.		Siruba single needle lock stitch machine	3.57
21.		Siruba five thread flat bed top & bottom cover stitch machine	0.75

3.2 Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (lakhs)
1.	Design and development of skin – fabric friction tester and measurement of In vivo and vitro friction properties of human skin	Dr.P.Kandhavadi Mr.R.Surjit	UGC New Delhi	2013 In progress	3 yrs	14.74

S.No.	Project title	Investigators	Sponsoring agency	Year of Commencement & status	Duration	Grant in INR (lakhs)
2.	Development of durable antimicrobial facemask using natural fungal extract for healthcare applications	Dr.G.Thilagavathi Dr.M.Parthiban	AICTE – RPS scheme, Govt. of India	2013 In progress	3 yrs	11.5
3.	Development of instructional materials for vocational training in textile sector	Dr.G.Thilagavathi Mr.K.Chandrasekaran Dr.R.Ramachandran	National Instructional Media Institute (NIMI), Chennai Phase-III	2011 In progress	4 yrs	47.93
			Phase-IV			
4.	Study on the effluent parameters of the ayurvedic dye bath waste water and the utility of dried solid mass of the dye bath remnants as organic manure for growing plants	Dr.P.Kandhavadi Mr.K.Chandrasekaran M.Savithru (12H237) P.Muthuraj(13H446) K.Santhoshkumar (13H452)	STEP (Kairali exports) (Students project) TIFAC-MSME-Internship Scheme	2015 June to April 2016	11 months	2.5

3.2.1. Sponsored research activities – Abstract

1. Design and development of skin – fabric friction tester and measurement of In vivo and Vitro friction properties of human skin

Direct contact and interactions between textiles and skin may cause reactions, diseases or even damages the skin. Friction and shear forces, as well as moisture between the human skin and textiles are critical factors in the formation of skin injuries such as blisters, abrasions and decubitus ulcers or bedsores. There are a few hospitals that are thick and rough bed linens made of 10s count cotton yarn and 100% polyester bed linens for their easy wash ability. The moisture absorbency and heat transportation properties of these plain woven bed linens make the skin soft and tender. Abnormal mechanical loading of skin surface tissues due to body weight along with shearing and friction causes skin to stretch and blood vessels to kink, which can impair blood circulation in the skin. In a person who is confined to bed, shearing and friction can occur when the person is dragged or slid across the bed sheets. The high-frictional force created due to courser and sticky bed sheets are the main cause for the breakdown of skins leading to frictional festers and pressure ulcer, in patients. Therefore, it is necessary to investigate the friction property and explore tribological behavior between fabric and skin at dry and wet conditions. It will contribute to developing textile materials, such as bed linens, sportswear, tight clothes, swimwear and other undergarments to keep the skin healthy and improve the textile wear comfort. This necessitates the design and development of an instrument to measure the friction

between skin and fabric and a thorough investigation to understand the interactions between garment and skin under various conditions.

2. Development of durable antimicrobial face masks using natural fungal extract for healthcare applications.

The worldwide demand for colorants of natural origin, especially yellow or red pigments, is rapidly increasing in the food, cosmetic and textile sectors. Natural colorants are considered to be safer than synthetic ones and there has been increasing interest in using microorganisms as a source of color since they require less labour, land, and cost effective solvents for extraction as opposed to higher plant materials. The fungal pigment is one of the best alternate sources to replace synthetic pigments/dyes. Among the several pigment-producing micro-organisms, the fungus thermomyces has been identified for the research work. Hence, this research work attempts to develop a durable antimicrobial facemask for healthcare application. Facemask will be developed by optimizing the textile structure such as woven/ non-woven materials. The natural fungal pigment will be applied on the textile material for dual and antimicrobial & coloring property.

3. Development of instructional materials for vocational training in textile sector Phase-II

The textile industry is one of the largest employment generators and also one of the earliest industries that existed in India. This diverse and globally competitive industry is witness to constant upgrading of techniques. Faced with huge demand worldwide, the need for trained manpower is becoming increasingly indispensable in the Indian textile industry. The textile industry of India is vital to the economy in terms of its production and usage capacity and directly contributes to the growth of employment of the nation. The textile industry is largely interlinked with the expanding fashion and apparel industry of India which makes it even more conducive to growth. The textile industry significantly contributes to export earnings of the country. From providing raw material to producing fabrics, the scope of the textile industry is huge.

At present, the shortages of manpower in terms of skilled and unskilled laborers are the main concern of the Indian textile industry. So, the development of manpower in different fields of textile sector is the need of the hour. Hence, this project is proposed to prepare the instructional materials for imparting technical and practical knowledge, competency and soft skills to the beneficiaries.

4. Study on the effluent parameters of the ayurvedic dye bath waste water and the utility of dried solid mass of the dye bath remnants as organic manure for growing plants.

The industry identified M/s Kairali Exports, which has an ayurvedic dyeing unit in Erode District of Tamilnadu. The industry is in dilemma whether the effluents generated from the ayurvedic dyeing process needs effluent treatment or not since all the process ingredients are natural products. Hence it is inevitable to know the characteristics of dye bath waste water and the dried solid mass of the ayurvedic dye bath remnants through systematic testing and research. Most of the synthetic dyeing units are producing effluents and harming the environment where as Natural/ Ayurvedic dyeing process produces non-toxic effluents but there may be speculation among the industry people that herb to herb interaction and use of mineral mordants may produce toxic effluents. Further there is a lack of clarity among the natural/ayurvedic dyeing unit industry people regarding the disposal/use of dried solid mass of the dye bath remnants generated from the dyeing process. The main objectives of this project work are to study the effluent parameters of the ayurvedic dye bath remnants and to identify the suitable utility area of the dried solid mass of the dye bath remnants.

4.3 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1.	Dr. M. Parthiban	Functional finishes for medical application	Dr.G.Thilagavathi Head of the Department Dept. of Textile Technology PSG CT, Coimbatore	2008 Completed
2.	Dr. V. Parthasarathi	Nano finishing for medical applications		2009 Completed
3.	Ms. S. Sudha	Textile composites		2009 Ongoing
4.	Dr.R.Rathinamoorthy	Nano fibrous materials for wound dressing		2009 Completed
5.	Dr. P. Kanakaraj	Investigations on transmission characteristics of multi-layer weft knitted fabrics	Dr.B.S.Dasaradan Professor and Dean Dept. of Fashion Technology Angel College of Engineering and Technology, Tirupur	2009 Completed
6.	Mr.K.Chandrasekaran	Eco-friendly healthcare textiles	Dr.N.Anbumani Associate Professor Dept. of Textile Technology PSG CT, Coimbatore	2011 Ongoing
7.	Mr.R.Surjit	Handle and comfort of fibres	Dr.R.Murugan Associate Professor Dept. of Textile Technology, PSG CT, Coimbatore	2011 Ongoing
8.	Dr.K.Vellingiri	Effect of plasma treatment on multifunctional finishes and influence of lactobacillus acidophilus bio culture treatment on effluents	Dr.T.Ramachandran Principal Karpagam College of Engineering Coimbatore	2007 Completed
9.	Dr.M.R.Srikrishnan	On investigation on the cyclic tensile and impact straining of yarns	Dr.Ramesh Chandran Nayar Professor Dept.of Textile Technology A.C.College of Technology, Anna University, Chennai	2008 Completed

3.3.1. Doctoral Research – Abstract

Transmission characteristics of layered weft knit fabrics for sportswear

Supervisor: Dr. B.S.Dasaradan

Candidate: Dr.P.Kanakaraj

Double and multi layered knit fabrics are used in sportswear for their unique transmission characteristics such as water vapour permeability, air permeability, thermal conductivity and one way liquid transport capacity. Transmission characteristics of layered knit fabrics were studied by producing fabrics with different principles such as tucks and loop connections. The tuck connected

fabric was found to have better transmission characteristics, when compared to loop connected knitted fabrics.

Furthermore, the impact of cotton and polyester material in the back layer of the loop connected double layer knit fabric was also studied. The effect of number of yarn feed on the transmission characteristics of double layer knit fabrics, made with single, two, four and six feeds of yarns with similar linear density was also studied. Based on single feed loop connected knit fabric, the influence of fabric structure on the transmission characteristics of the double layer knit fabric was also studied. Owing to the presence of polyester fiber in the face layer, the fabric facilitates good transmission characteristics to the fabric. An attempt was made to develop multi layered knit fabric with loop transfer technique using computerized multi gauge flat knitting machine. The transmission characteristics of multi layer knit fabric was found to be superior to the double layer knit fabric due to the presence of air gap between the layers.

The optimum transmission characteristics of double layer fabrics were selected from the study for the development of sports protective product -batting glove. Based on the various judgment criteria, ranking and statistical analysis, the batting glove made from double layered knit fabric with variable stitch density on face and back surfaces, exhibits good performance. Hence the usage of double layer knit fabrics in the manufacture of protective sports glove is highly preferred.

Development of tri-laminate Antiviral surgical gown for liquid barrier protection

Supervisor: Dr. G.Thilagavathi

Candidate: Dr.V.Parthasarathi

A foremost problem for healthcare workers is the transmission of pathogens and bacteria from their patients to themselves and the reverse contamination. Bacteria contaminated fabric in hospitals are known to be a major source of infection as any blood contamination could pose a risk of transmission of bacteria and virus. In recent times the market demand of healthcare textiles has increased incredibly and the scope of surgical gowns is enormous due to hygiene consciousness. As infectious diseases like Hepatitis, SARS have reached an alarming limit, the method of protection from these dreadful diseases need to be improved. Without usage of sufficient barriers, harmful bacteria can reach and penetrate the skin of surgeons with an associated potential for infection.

This research work is an attempt towards developing tri-laminate antiviral surgical gown using the polypropylene, polyester and viscose nonwoven fabrics. Tri-laminate antiviral surgical gowns were developed from different nonwoven fabrics combinations using Polytetrafluoroethylene (PTFE) membrane as the middle layer and studied their performance and characteristics for barrier against viruses as per the Association for the Advancement of Medical Instrumentation (AAMI).

Investigations on colouration and antibacterial finishing of silk and wool fabrics treated with natural fungal extract for healthcare applications

Supervisor: Dr. G.Thilagavathi

Candidate: Dr.M.Parthiban

This research focuses on a pigment from the fungal species namely Thermomyces which is extracted, characterized and applied onto silk, cotton and wool fabrics for imparting color and antibacterial activity. The yellow pigment which is isolated from thermomyces species. It is purified, extracted and characterised. The optical density of the fungal pigment has been examined using UV-Visible Spectroscopy and it shows highest affinity towards the protein fibres. The pigment is further subjected to characterisation using paper and thin layer chromatography and revealed that the pigments are multi-component in nature. The antibacterial activity of thermomyces fungal species is studied (Minimum Inhibitory Concentration) against different human pathogens and the extracted fungal pigment is applied for coloration process on silk and wool fabrics and the effect of pH, temperature, time, mordant, color intensity and fastness properties has been studied and the conditions are examined. The optimum concentration of the pigment is observed at 2% on weight of the fabric for both silk and wool fabrics and the optimum condition for dyeing and antibacterial activity of silk fabric is 60° C, 30 min at 3 pH and wool fabrics are 30° C, 60 min at 3 pH and wool

fabric is 60° C, 30 min at 3 pH. Two kinds of products namely silk suture and woollen socks are also developed and characterised. The results showed that the pigment concentration in the selected range has no significant effect on friction, tenacity and knot strength of silk sutures. Antimicrobial test results showed that as the pigment concentration increases the antimicrobial activity also increases against both *E. coli* and *S.aureus* bacteria. The results showed that there is no loss in the tensile and abrasion behavior of pigment treated woollen socks but there is a significant improvement in the antimicrobial property. The pigment treated woollen socks also exhibits excellent perspiration fastness, good rubbing fastness and moderate wash fastness properties.

Investigations on Odour Retention Characteristics of Textiles

Supervisor: Dr. G.Thilagavathi

Candidate: Dr.R.Rathinamoorthy

The present study is designed to evaluate the influence of textiles on the odour retention characteristics. Commercially used textile fabrics made of cotton, viscose, linen, nylon, cotton/polyester (60/40) and 100 % polyester were used for wear trial. Cotton knitted fabrics made of three different thicknesses were selected based on their commercial importance. The effect of different structures on odour formation was analysed. It was found that the structure with high thickness had the high odour intensity rating and the least value was observed for thinner structure. High-performance liquid chromatography (HPLC) analysis was done to confirm the presence of these components in *Terminalia chebula*. The *in-vitro* antibacterial test by agar diffusion test was conducted for finished textile samples and it was observed that, the treated textiles material have the potential antibacterial property against wide spectrum of odour causing strains.

The Box and Behnken design was adopted to study the effects of these parameters on the effectiveness of extraction in terms of *in-vitro* antibacterial activity of treated textile against odour causing bacterial strains. The optimized extraction conditions were taken for the odour retention study. The results revealed that, the odour intensity in all the textile fabrics reduced significantly after *Terminalia chebula* finishing process. The odour reduction in the *Terminalia chebula* finished fabrics was characterized objectively using GC/MS. The GC/MS analysis of *Terminalia chebula* extract finished textile showed comparative reduction in odourous components after wear trial than the untreated. These findings suggest that the active components in the herbal extract acted as antibacterial components and controlled the growth of bacterial species and thus reduced the metabolism of bacterial strains. Hence, the formation in the odour was considerably less in *Terminalia chebula* finished fabric than the unfinished fabric.

An Investigation on the Cyclic Tensile and Impact Straining of Yarns

Supervisor: Dr.Ramesh Chandran Nayar

Candidate: Dr. M.R.Srikrishnan

In general the textile materials are subjected to repeated strains of various forms, the cyclic strains, during their manufacture and in their use by which they get fatigued at different levels. This dissertation is based on cyclic straining of yarns and has been designed to accommodate a number of variables at various levels, the straining amplitude, straining speed, straining cycles, their cumulative application, specimen length, testing parameters, material construction and chemical treatments along with interaction among the forms of straining. The cyclic tensile and cyclic impact straining of yarns were selected in order to study their effects on yarn characteristics. It was observed that the extension level of 8 mm, the extension rate of 400 mm/min and the number of straining cycles of 2500 resulted in the maximum drop in the tensile breaking load value of the yarn. The loss % of the tensile breaking load and breaking extension values of the compact yarn, strained at various specimen lengths, decreases at lower specimen lengths at all straining cycles studied. It is observed that the rate of increase of breaking load and breaking extension % values of strained ring and compact yarns with increase in the tested extension rate is lower than that of unstrained yarns. The compact yarn performs better than the ring yarns. The yarn tension of 1.6 cN, the dropping height of 15 cm and the number of straining cycles of 2500 resulted in the maximum drop in the

impact breaking load value of the yarn. It has been proved that higher proportion of tensile straining in the mixed straining has good impact on the loss % of the tensile breaking load, breaking extension % and impact breaking load values. The loss % of the tensile as well as impact breaking load values in ring yarns is lower than that of rotor yarns at all the straining cycles studied. Out of the chemically treated yarns, the mercerized ring and rotor yarns exhibit good resistance to the cyclic tensile and impact straining treatments.

3.4. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1.	Department Library	60	5	-	5	10	
2.	GRD Library – Fashion Technology	5,024	1,629	20	3	20	-

3.5. Board of studies

S.No.	Date	Agenda	External experts
1.	31.10.2015	<ul style="list-style-type: none"> • Presentation of scheme and detailed syllabus of B.Tech - Fashion Technology 2015 regulation. • Review of Vision, Mission, PEO, POs & UG programme. • Introduction to B.Tech 2012 regulations electives 	<p><u>University Nominee</u></p> <p>1. Dr.M.Madhusoothanan Professor, Dept. of Textile Technology A.C. College of Technology Anna University, Chennai</p> <p><u>Academic Expert – External</u></p> <p>2. Mr.S.Ramalingam Director Pearl Academy of Fashion, Chennai</p> <p>3. Dr.R. Neelakandan Assistant Professor (Sr.Gr.) Dept. of Textile Technology AC College of Technology Anna University , Chennai</p> <p><u>Industry Experts:</u></p> <p>1. Mr. E.S.Sankar Textile Consultant G2 Montreal Manor Kumarapark(W) , Bengaluru</p> <p><u>Special Invitee</u></p> <p>1. Ms.Tina Mohan Manari Manager Design /Consultant Crocodile products India ltd Bengaluru</p> <p>2. Mr.Shri Raajkaanth Director-Methods Apparel Consultancy India (P) Ltd., No.6, Daffodils, Titan township road, Old Mathigiri, Hosur</p> <p>3. Dr.Kenkere Narahari Fashion Consultant, Bangalore</p>

S.No.	Date	Agenda	External experts
2.	02.04.2016	<ul style="list-style-type: none"> Finalization of B.Tech 2015 regulation detailed syllabi Introduction of new electives for UG programme Introduction of one credit courses for UG programme 	<p><u>University Nominee</u></p> <p>1. Dr.M.Madhusoothanan Professor, Dept. of Textile Technology A.C. College of Technology Anna University, Chennai</p> <p><u>Academic Expert – External</u></p> <p>2. Mr.S.Ramalingam Director Pearl Academy of Fashion, Chennai</p> <p>3. Dr.R. Neelakandan Assistant Professor (Sr.Gr.) Dept. of Textile Technology A.C. College of Technology Anna University , Chennai</p> <p><u>Industry Experts:</u></p> <p>1. Mr. E.S.Sankar Textile Consultant G2 Montreal Manor 10/3 Shopping street, Kumarapark(W) , Bangalore</p> <p><u>Special Invitees</u></p> <p>1. Mr.G.Somasundaram GM (Learning and Development) M/S Eastman Group of Companies 7/11, 2nd floor, 6th cross, Ventkateswara layout, S.G.Palaya, Dharmaram college (Po) Bangalore 560 029</p> <p>2. Mr. A.K.B.Nawas Babu Managing Director & CEO M/s.S. A. Knitwears Pvt Ltd 373, K.K.Nagar, Madurai</p>

3.6. Research publications

3.6.1. Papers published in international journals

1. K.Chandrasekaran, "Analysis of eco friendly medicinal herb extracts and essential oil applications on textile products for healthcare applications", *Indian Journal of Traditional knowledge*, Vol.14(3), pp. 481-487, July 2015.
2. S.Sudha and G.Thilagavathi, "Effect of Alkali Treatment on mechanical properties of woven jute composites", *Journal of Textile Institute*, Vol.9(2), pp. 25-31, July 2015.
3. M.R.SriKrishnan, P.Kandhavadvu and G.Thilagavathi, "Lyocell, polyester and bamboo fibres for small scale industry workers uniform", *Indian Journal of Fibre & Textile Research*, Vol.58, pp 153, August 2015.
4. V.Parthasarathi "Development of Dual Finished Surgical Gown", *The Journal of the PharmTech Research*, Vol.8, No.5, pp 924-927, August 2015.
5. K.Vellingiri, "Moisture and Thermal Management Properties of Woven and Knitted Tri-Layer Fabrics" *Indian Journal of Fiber and Textile Research*, Vol 40, Sep 2015 pp 243-249, September 2015.
6. P.Kandhavadvu, "Permeability and impact properties of warp-knitted spacer fabrics for protective application", *Journal of Textile and Apparel Technology and Management*, Vol. no.9, issue 2, pp 1-7, September 2015.

7. C.Vigneswaran, "Banana Fiber: Scope and value added product development", *Journal of Textile and Apparel Technology and Management*, Vol. no.9, issue 2, pp 1-7, September 2015.
8. R.Ramachandran and P.Kanakaraj, "Active Knit Fabrics-Functional Needs of Sportswear Application", *Journal of Textile and Apparel Technology Management*, Vol. 9, Page: 1-11, Spring 2015.
9. R.Rathinamoorthy and P.Kandhavadi, "Surface Friction Characteristics of Woven Fabrics with Nonconventional Fibers and their Blends", *International Journal of Textile and Apparel Technology Management*, Vol.9, (3), pp. 7155-7163, 2015.
10. K.Vellingiri, "A study on the functional properties of silk and polyester /lyocell mixed fabric", *International Journal of Revista materia*, Vol.20 (4), pp.66-74, 2015.
11. P.Kandhavadi, "Compression clothing for improved sports performance", *Asian Textile Journal*, , Vol.24 (5), pp. 31-36, May 2015.
12. K.Chandrasekaran "Thermal regulation of textiles using phase change materials", *Journal of Industrial Textiles*, Vol.44, pp.46-56, October November 2015.
13. V.Parthasarathi "Design and development of sports intimate apparel- A Review", *On line of sports technology & human engineering*, Vol.1 (3), pp.1-12, January 2016.

3.6.2 Papers published in national journals

1. M.Parthiban and P.Kandhavadi, "Novel Coloration using Naturally Colored Cotton", *Asian Dyer*, vol.24 (6), pp.69-71, June 2015.
2. K.Vellingiri, "Novel Coloration using Naturally Colored Cotton", *Asian Dyer*, June 2015.
3. M.R.Srikrishnan and P.Kandhavadi, "Fashion Designing and Latest Fashion Trends", *Journal of Textile and Fashion Technology*, vol.1, pp.33-40, June 2015.
4. M.R.Srikrishnan and P.Kandhavadi, "Robotics for Protective Textiles", *Asian Textile Journal*, vol.74, pp.75-78, July 2015.
5. R.Surjit, "An overview of blood repellent finish for hospital fabrics", *Asian Textile Journal*, vol.24 (8), pp.63-65, August 2015.
6. R.Rathinamoorthy, P.Kandhavadi and R.Surjit "Analysis of Humanphysiological comfort properties of commercial Hospital Bed linen fabrics", *Journal of Textile Association*, vol.74, pp.165, September – October 2015.
7. P.Kandhavadi, "Measuring Techniques for liquid moisture transmission of textiles", *National journal of technology*, vol.11 (4), pp.75-78, December 2015.

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1.	B. Tech. Fashion Technology - I Year	58
2.	B. Tech. Fashion Technology - II Year	60
3.	B. Tech. Fashion Technology - III Year	67
4.	B. Tech. Fashion Technology - IV Year	66

4.2 Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Guest Lecture on "STeP – Sustainability in textile production"	Mr. Vignesh Amalraj Technical compliance Manager M/s Hohenstein India Private Limited, Tirupur	70	24.06.2015

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
2.	Guest Lecture on “Apparel industry”	Mr.K.Mohanasundaram Senior Manager, M/s J G Hosieries Pvt. Ltd., Tirupur	70	30.09.2015
3.	Guest Lecture on “Design process and portfolio Development”	Ms. Tina Manari Head – Design Development Crocodile India and True- balance – Germany/India, Bangalore	70	30.10.2015
4.	Guest Lecture on “Conceptual Indian folk art illustration”	Mr. SCD Balaji, Chief creative officer, Atma Studios, Coimbatore	70	17.12.2015
5.	Guest Lecture on “Career opportunities in Supply chain management”	Dr.A.Vivek, Associate Professor, PSG IM, Coimbatore	70	01.02.2016
6.	Guest Lecture on “TRIZ – Tool for creativity and innovation”	Dr.V.S.Sree Balaji, Professor and Head (Mech.) Dr. NGP IT, Coimbatore	70	04.02.2016
7.	Guest Lecture on “Production planning for apparel industry”	Mr.Satheesh Saravanan Management representative M/s CBC Fashions Asia Pvt. Ltd.Tirupur	70	08.03.2016

4.3. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1.	Paper presentation	4	2
2.	Fashion work competition	57	21
3.	Academic	1	1

4.4. Awards won by students

S.No.	Name of student	Roll no.	Event	Award	Awarded by	Date
1.	M.Prabhu M.Ebinesan	13H448 14H434	Scholarship	Prof. Sreenivasan endowment Award	Department of Fashion Technology, PSG CT, Coimbatore	24.06.2015
2.	S.Meena	14H438	NSS Camp	First	Department of Fashion Technology, PSG CT, Coimbatore	23.12.2015 – 29.12.2015
3.	S.Hemalatha	14H435	NSS Camp	-	PSG CT, Coimbatore	23.12.2015 – 29.12.2015

S.No.	Name of student	Roll no.	Event	Award	Awarded by	Date
4.	A.Ajitha	13H201	NSS Camp	-	PSG CT, Coimbatore	23.12.2015 – 29.12.2015
5.	S.Akshaya	14H432	NSS Camp	-	PSG CT, Coimbatore	23.12.2015 – 29.12.2015
6.	S.Aishwarya	14H431	NSS Camp	-	PSG CT, Coimbatore	23.12.2015 – 29.12.2015
7.	S.Monika	13H221	CATc camp at PSG Tech for 10 days	Camp senior	PSG CT Coimbatore	01.07.2015- 10.07.2015
8.			Independence day	Parade commander		15.08.2015
9.	S.Akshaya	14H432	QUIZBEE	Bannariamman Institute of Technology, Sathy	Second	14.08.2015
10.	M.Ebinesan	14H434				
11.	A.Ajitha	13H201				
12.	S.Aiswarya	14H431				
13.	P.Sugumar	14H447	TEX.Expert		Second	
14.	M.Parthiban	14H440				
15.	A.Luckshi R.Saritha Z.Rasmin Thahani S.Janani Aashitha	14H218 14H239 14H231 14H212	Throwball tournament	PSG CT	Second	12.01.2016
16.	A.Luckshi S.Saranya	14H218 14H238	Puzzle mania		First	28.09.2015 - 01.10.2015

4.5. Final year project work

4.5.1. UG projects (Regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
1.	12H203	Charmini	Development of anti decubitis overlay and arm pad	Dr.P.Kandhavdivu	Peps Industries Pvt. Ltd. Coimbatore
	12H208	Divina Dharshini			
	12H224	Nimitha			
	12H245	K.Vidhya			
2.	12H218	S.Lavanya	Design and development of size chart for school kids uniform	Dr.P.Kandhavdivu Mr.R.Surjit	-
	12H231	C.Ramya			
	12H236	S.Satheesh Kumar			
3.	12H222	V.Mohanraj	Novel method of fabric/garment washing using solid carbon dioxide	Dr.C.Vigneswaran	-
	13H439	A.V.R.Kaviraj D.Rajeswara			
4.	12H219	V.Laxmi Niveda	Investigation of properties of silk fabric treated by enzyme technology		-
	12H235	E.Sangeetha			
	13H443	A.Mohamed Sharief			
5.	12H205	R.Deechanya	Engineering 3D printed haute couture fashion wear	Dr.R.Rama chandran	-
	13H435	K.Hari Prasad			
	13H436	J.R.Hari Prasanna			

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
6.	12H212 12H213 13H433 13H448	Gowri Shankari A.Jananee K.Geetha M.Prabhu	Warehouse and dispatch management	Dr.P.Kanakaraj	J.G.Hosiery (Pvt) Ltd, Tirupur
7.	12H202 12H216 13H442	Bilal Shaikh K.Karthika Mohamadyuns	Development of products from natural wetland plant fibre - Phargmites australis (common weed)		-
8.	12H207 12H214	M.Dhivyanga R.Jayabalan	Manufacturing excellence through application of industrial engineering and lean manufacturing techniques in an apparel manufacturing firm	Dr.K.Vellingiri	Texport Syndicate (I) Limited, Bengaluru
9.	12H210 12H239 13H434	P.Geethalakshmi R.Silu M.Gokul Srinivash	Effect of loop length on mechanical properties of excel, Linen and soybean blended knitted fabrics		-
10.	13H438	K.Karthick	Intiating of zero defective line		
11.	13H437 13H453	J.Jayapritha S.Vimaladevi	Implementation of lean techniques in apparel firm		SRG Apparels Pvt. Ltd. Tirupur
12.	12H237 13H446 13H452	M.Savithru Muthuraj Santhosh Kumar	Study on Ayurvedic dye bath remnants and developments of ayurvedic fashion garments	Mr.K.Chandra sekaran	Ayurtex, Tirupur
13.	12H238	S.Shwetha	Designing of season calendar planning for a sports wear manufacturing firm and evaluating its effectiveness		Decathlon, Coimbatore
14.	12H229 12H233 12H248 13H447	T.Ragavi Rathi Sanjeevi S.Vishali TSR. Nishok	Development of sustainable of denim	Dr.M.Parthiban	Trigger Apparels Ltd., Karamadai
15.	12H220 13H440 13H450	K.Mahima Sai Priya D.Keerthana Rebecca Herbert	Simultaneous dyeing and antibacterial finishing using microbial extract for sports intimate wear		-
16.	12H206 12H227 12H240	A.Divya Raajapriya Sivaranjani	Design and development of intimate apparel	Dr.V.Parthasarathi	-
17.	12H223 13H431 13H432	D.Monica V.Babu R.Divya	Investigation of cost effective deeper shades reactive dyeing		-
18.	12H201	V.Bhuvaneshwari	Investigation on acoustic	Ms.S.Sudha	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
	12H211 12H232	S.Gokulram J.Ranjani	property of jute composites		
19.	12H225 12H230 12H247	P.Ponmani R.Ragini R.T.Vinu Deepiga	Design and development of home textile product using felts	Dr.M.R.Srikrishnan	-
20.	12H243 13H444 13H445	C.Vaishnavi R.Mohana Preethi S.Mohanraj	Enhancement of aesthetic and comfort properties of chiengora and its blends	Mr.R.Surjit	-
21.	12H226 12H242 12H244	Prithisha Murugan C.A.Thasneem C.Vasudharani	Study on Licorice root finish for Atopic skin disorders	Dr.R.Rathina moorthy	Ayurtext, Tirupur
22.	12H209 12H234 13H441	S.Divya S.Sandhya R.Keerthana	Influence of dry-cleaning process on different fabric properties		-
23.	12H204 12H228 13H451	V.Devisree S.Raghavi K.S.Sabari Raja	Antimicrobial finished convertible garment with antiodour properties	Ms.S.Sudha / Ms.V.Yamuna	-

4.6. Competitive exams

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1.	NIFT	8	12H204	V.Devisree
			12H234	S.Sandhya
			12H203	B.Charmini
			12H208	S.Divina Dharshini
			12H220	Mahima Saipriya
			12H229	T.Raghavi
			12H219	V.Laxmi Niveda
			13H451	K.S.Sabri Raja
2.	NID	01	12H219	V.Laxmi Niveda
3.	CAT	02	12H234	S.Sandhya
			12H208	S.Divina Dharshini
4.	XAT	01	12H208	S.Divina Dharshini
5.	MAT	06	12H242	C.A.Thasneem
			12H202	Bilal Shaikh
			12H244	C.Vasudharani
			12H232	J.Ranjani
			12H240	S.Sivaranjani
			12H223	D.Monica
6.	TOFEL	03	12H222	V.Mohanraj
			13H434	M.Gokul Srinivas
			12H226	Prithisha Murugan
7.	GRE	01	12H226	Prithisha Murugan
8.	IELTS	02	13H434	M.Gokul Srinivas
			12H207	M.Dhivyanga

4.7. Placement

S.No.	Name of company	No. of students	Students placed		Package per Annum (lakhs)
			Roll No.	Name	
1.	Accenture, Chennai	07	12H201	V.Bhuvaneshwari	3.5
2.			12H211	S.Gokul Ram	
3.			12H214	R.Jayabalan	
4.			12H224	N.Nimitha	
5.			12H227	T.Raaja Priya	
6.			12H245	K.Vidhya	
7.			12H233	P.Rathi Sanjeevi	
8.	J G Hosiery, Tirupur	04	12H212	R. Gowri Shankari	1.95
9.			12H213	A. Jananee	
10.			13H433	K.Geetha	
11.			13H442	M.Mohammed yuns	
12.	Jay Jay Mills, Tirupur	02	12H248	S.Vishali	1.9
13.			13H431	V.Babu	
14.	Sakthi Knit wears, Palladam	05	13H437	J.Jayapritha	2.52
15.			12H236	S.Satheeshkuamr	2.64
16.			13H445	S.Mohan Raj	2.52
17.			13H450	Rebecca Herbert	2.76
18.	J G Hosieries, Tirupur	01	13H448	M.Prabhu	1.95
19.	Aravind Brands, Bangalore	01	13H439	A.V.R.Kaviraj	3.5
20.	Madura Clothing Bangalore	01	13H438	K.Karthick	3.0
21.	Texport Garments, Bangalore	01	13H447	T.S.R. Nishok	2.32
22.	Decathlon, Coimbatore	01	12H238	S.Shwethaa	4.8
23.	Shahi Exports, Bangalore	01	13H436	J.R.Hari Prassana	2.16
24.	Le sharks Global LLB, Tirupur	01	13H446	P.Muthuraj	2.4
25.	Advanced clothing concepts, (acc) Coimbatore	01	13H452	K.Santhosh kumar	
26.		01	13H449	D.Rajeswaran	1.50
27.	Unity Exports, Karur	01	12H225	P.Ponmani	1.8
28.	Fashion gate, Tirupur	02	12H218	S.Lavanya	1.50
29.			12H231	C.Ramya	1.50
30.	Jacquard fabrics, Coimbatore	01	12H237	H.Savithru	1.80

4.8. Industrial training and projects

4.8.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1.	Sree Sai Krishna Cotton Mills Kurumbapalayam, Sullur	58 B.Tech Fashion Technology	23.06.2015	Mixing, Blow room, Carding, Drawing, Simplex and Ring Spinning system.
2.	Goodwill Apparels Tiruppur		27.06.2015	Carding, Drawing, Simplex and Rotor Spinning system
3.	Jacquard Fabrics India P Ltd 16/3A1, 10-Muthur village Kinathukadavu, Pollachi		30.06.2015	Projectile Weaving

S.No.	Name of company	No. of students & course	Period	Area of training
4.	SCM GARMENTS Anaipudur, Tirupur		11.07.2015	Shuttle less looms, Projectile looms, Production of Twill and plain fabric
5.	Intertek India Pvt Limited Tirupur		08.08.2015	Garment manufacturing

4.8.2 Short term training

S.No.	Name of company	No. of students & course	Period	Area of training
1.	Ottoman, Chennai	1 UG- 6 th Sem	11.05.2015- 30.05.2015	Fashion designing and garment manufacturing process
2.	BNT, Chennai	4 UG- 6 th Sem		
3.	S.A knits wear, Madurai	1 UG- 6 th Sem		
4.	Peacock Apparels, Madurai	3 UG- 6 th Sem		
5.	Sreeja hosieries pvt. ltd, Coimbatore	3 UG- 6 th Sem		
6.	White House, Chennai	3 UG- 6 th Sem		
7.	Hyatt clothing company, Madurai	2 UG- 6 th Sem		
8.	KMD Exports, Salem	5 UG- 6 th Sem		
9.	Aravind Apparels, Bangalore	1 UG- 6 th Sem		
10.	Gangotri textiles, Coimbatore	3 UG- 6 th Sem		
11.	Nash creation, Tirupur	1 UG- 6 th Sem		

4.8.3. Project work/ Internships

S.No.	Name of company	No. of students & course	Period	Area of work
1.	Peps Industries Pvt. Ltd. Coimbatore	4 (UG)	01.02.2016 - 31.03.2016	Medical Textiles
2.	Texport Syndicate (I) Limited	1 (UG)	21.12. 2016 - 13.03. 2016	Industrial Engineering
3.	J.G.Hosiery (Pvt) Ltd	4 (UG)	01.12. 2015 - 31.03. 2016	Industrial Engineering
4.	Methods Apparel Consultancy India (P) Ltd, Hosur	1 (UG)	21.12. 2015 - 31.03. 2016	Industrial Engineering
5.	Trigger Apparels Ltd., Karamadai	4(UG)	01.12. 2015 - 31.03. 2016	Product Development

S.No.	Name of company	No. of students & course	Period	Area of work
6.	Ayurtex, Tirupur	3(UG)	Complete period of internship for utilizing the testing facilities	Medical Textiles
7.	Decathlon Sports Ltd., Coimbatore	1 (UG)	27.11. 2015 - 30.04. 2016	Industrial Engineering
8.	SRG Apparels Pvt. Ltd. Tirupur	2(UG)	8.12. 2015- 30.03. 2016	Industrial Engineering
9.	Madura Clothing, Bangalore	1 (UG)	14.12. 2016 - 12.03. 2016	Industrial Engineering
10.	Laguna Clothing, Bangalore	1 (UG)	07.12.2015 - 17.02. 2016	Fabric Sourcing

4.9. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1.	Nathiya (10H226)	Master of Fashion Design	NIFT, Chennai
2.	Jaishree (11H438)		Institute of Marangoni, London
3.	Thanuseeya V.S (10H243)		London College of Fashion, London
4.	Divya dharini (10H210)	MBA	SSN College of Engineering, Chennai
5.	Muthu arun (10H223)	M.Tech Textile Technology	PSG College of Technology, Coimbatore
6.	Shivashanthini R. (10H239)		Sona College of Technology, Salem
7.	Revathy S. (11H446)		PSG College of Technology, Coimbatore
8.	Viveka priyadharshini (10H246)	MBA	Dr. G.R.Damodaran College of Science, Coimbatore

4.10. No. of students passed out

Year	UG
2010	58
2011	60
2012	53
2013	55
2014	64
2015	70
2016	63

5. SUMMARY

S. No.	Activity	No.	
1.	Workshops conducted	07	
2.	Short-term training programs conducted	11	
3.	Sponsored research projects ongoing	03	
4.	Scholars pursuing doctoral research	03	
5.	Total no. of doctorates produced till date	09	
6.	Papers published in international journals	13	
7.	Papers published in national journals	07	
8.	No. of students passed out as on May 2016	UG	63
9.	No. of students passed out till date		416

DEPARTMENT OF INFORMATION TECHNOLOGY

ABOUT THE DEPARTMENT

The Department of Information Technology was established in the year 1999 with a view to develop quality IT professionals by providing concept oriented subject knowledge through high quality teaching supplemented with practical training. The department offers one under graduate programme in Information Technology and two post graduate programmes in Information Technology and Biometrics & Cyber Security.

The department has six laboratories namely Hardware Devices and Biometrics laboratory, PG laboratory, PG project laboratory, IT laboratory, Juniper networks laboratory and Research laboratory. The hardware laboratory is allotted experiments related to biometrics and electronic subjects such as Electronic devices and circuits, Digital Logic Design, Micro Processor and Micro controller. The PG project laboratory is allotted for the PG students for project work. The IT laboratory is meant for conducting laboratory courses of UG students. The Juniper networks laboratory setup in collaboration with Juniper networks is used for conducting laboratory courses on networking. It serves the department in conducting various programmes and workshops on networking. A centre for Ekalavyahas been established to conduct programmes with A-view and other webinars.

Reputed companies conduct campus interviews through the placement cell of the college. Many students go for higher studies to universities in various countries and other reputed institutions in India. Apart from specialized knowledge and skills, the programmes conducted by the department aim to develop all round personality by inculcating values of truthfulness, genuineness, team spirit and work culture.

A brief on research activities

The department of Information Technology has been doing research work actively in several areas with notable publications in several refereed journals and conferences. The department has been sanctioned a research project from UGC in the area of Biometrics. Currently, the department has 8 doctorates and 12 faculty members pursuing their Ph.D. Research scholars from other colleges are also pursuing their PhD under the supervision of our faculty. The department regularly conducts research seminars for the benefit of those who are pursuing their doctorate degree.

Major areas of research

- Distributed Computing
- Computer Networks, Wireless Sensor Networks and Network Security
- Data Mining – Association Rule Mining, Data Clustering and Classification
- Image Processing - Texture Classification, Biometric Identification
- Biomedical Signal Processing
- Grid Computing
- Ontology
- Cloud Computing
- Internet of Things

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr.K.R.Chandran, Ph.D Professor and HoD	krc@cse.psgtech.ac.in	2006	Networks, Information Systems, Database Technologies, Modeling and Simulation.
2.	Dr.V.Mahesh, Ph.D Professor	vm@ity.psgtech.ac.in	2001	Microprocessors and Microcontrollers, Digital Logic Design and Electronic Circuits
3.	Dr.K.Umamaheswari, Ph.D Professor	uma@ity.psgtech.ac.in	2001	Data Mining, Software Engineering and Theory of Computing
4.	Dr.R.Vidhyapriya, Ph.D Professor	rvp@ity.psgtech.ac.in	1998	Wireless Networks, Computer Networks and Computer Architecture
5.	Dr.A.Soundarajan, Ph.D Associate Professor	asr@ity.psgtech.ac.in	2007	Digital Logic Design, Electronic Devices & Circuits and Evolutionary Algorithms
6.	Dr.G.Subashini, Ph.D Associate Professor	suba@ity.psgtech.ac.in	2000	Operating Systems, Distributed Computing and Evolutionary algorithms
7.	Ms.K.Gokilameena, M.E Assistant Professor (Sl.Gr)	kgm@ity.psgtech.ac.in	2001	Signal Processing, Communication and Microprocessors
8.	Mr.T.Sivakumar, M.E Assistant Professor (Sl.Gr)	sk@ity.psgtech.ac.in	2004	Information Security, Computer Networks and Operating Systems
9.	Dr.S.Siva Kumar, Ph.D Assistant Professor (Sl.Gr)	ssk@ity.psgtech.ac.in	2007	Digital Signal Processing, Wireless Sensor Networks, Data Communication & Networking
10.	Dr.D.KarthikaRenuka, M.E Assistant Professor (Sr.Gr)	dkr@ity.psgtech.ac.in	2004	Information Security, Computer Networks and Soft Computing
11.	Ms.R.Rekha, M.E Assistant Professor (Sr.Gr)	rra@ity.psgtech.ac.in	2009	Digital electronics, Communication Engineering and Microprocessor
12.	Ms.B.Sangeetha, M.E Assistant Professor (Sr.Gr)	bsg@ity.psgtech.ac.in	2009	Database Management System, Operating Systems and SOA
13.	Ms.R.SenthilPrabha, M.E Assistant Professor (Sr.Gr)	rsp@ity.psgtech.ac.in	2010	Biometric Systems, Computer Networks and Software Engineering

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
14.	Ms.N.HemaPriya, M.E Assistant Professor(Sr.Gr)	nhp@ity.psgtech.ac.in	2012	Computer Networks, Open Source Systems and Web Services
15.	Ms.S.Sarathambekai, M.Tech Assistant Professor(Sr.Gr)	saru@ity.psgtech.ac.in	2005	DBMS, Programming Languages and Evolutionary algorithms
16.	Ms.S.P.Rajamohana, M.Tech Assistant Professor(Sr.Gr)	spr@ity.psgtech.ac.in	2008	DBMS, Software Engineering and OOMD
17.	Ms.T.Vairam, M.Tech Assistant Professor(Sr.Gr)	tvm@ity.psgtech.ac.in	2008	Programming languages, Networking Technologies and System Software
18.	Mr.V.Ilyaraja, M.E Assistant Professor(Sr.Gr)	vir@ity.psgtech.ac.in	2008	Information Storage and Management, Database Management Systems and Mobile Computing
19.	Ms.K.AnithaKumari, M.E Assistant Professor (Sr.Gr)	kak@ity.psgtech.ac.in	2010	Grid Computing, Cryptography and Data Structures
20.	Ms.K.P.ThamilSelvi, M.Tech Assistant Professor	kpt@ity.psgtech.ac.in	2010	Multimedia Systems, Software Engineering and Operating Systems
21.	Ms.N.Archana, M.E Assistant Professor	naa@ity.psgtech.ac.in	2011	Power Electronics, Soft Computing, Electronic Devices, Microprocessors and Embedded Systems
22.	Ms. C. Akalyadevi, M.E Assistant Professor	cad@ity.psgtech.ac.in	2012	Web Technology, DBMS and Software Engineering
23.	Ms.S.Shymalagowri, M.E Assistant Professor	ssg@ity.psgtech.ac.in	2012	Operating Systems, DBMS, Information Security and Web Technology
24.	Ms. R.Padmashani, M.Tech Assistant Professor	rpi@ity.psgtech.ac.in	2012	Computer Networks and Security and Machine Learning
25.	Ms. V. P. Brintha, M.E Assistant Professor	bvp@psgtech.ac.in	2013	Biometric Security and Image Processing
26.	Ms.N.RavithaRajalakshmi, M.E Assistant Professor	nrr@ity.psgtech.ac.in	2013	Data mining, Biometrics and Networks
27.	Ms.T.S.Chithra, M.Tech Assistant Professor	cts@ity.psgtech.ac.in	2014	Information security, Data mining and operating system
28.	Mr.R.Saravanan, M.Tech Assistant Professor	rs@ity.psgtech.ac.in	2014	Compiler Design and Computer Architecture
29.	Ms.G.Sindhu, M.Tech Assistant Professor	gsu@ity.psgtech.ac.in	2014	Semantic Web & Cloud Computing, Big Data, Operating System and DBMS

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
30.	Ms. E. G. Radhika, M.Tech Assistant Professor	egr@ity.psgtech.ac.in	2015	Software engineering and Cloud computing
31.	Mr. A. Aravindh Assistant Professor	aar@ity.psgtech.ac.in	2015	Online Learning, Multi-task Learning using kernel Methods and Kernel Embeddings Hilbert Space

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No	Name of faculty	Programme	Year of joining & status
1	Mr.T.Sivakumar	Ph.D	2009, Ongoing
2	Ms.N.HemaPriya	Ph.D	2009,Ongoing
3	Ms.T.Vairam	Ph.D	2009, Ongoing
4	Mr.V.Ilayaraja	Ph.D	2010, Ongoing
5	Ms.R.Rekha	Ph.D	2011, Ongoing
6	Ms.B.Sangeetha	Ph.D	2011, Ongoing
7	Ms.R.Senthilprabha	Ph.D	2011, Ongoing
8	Ms.S.Sarathambekai	Ph.D	2011, Ongoing
9	Ms.K.AnithaKumari	Ph.D	2011, Ongoing
10	Ms.N. Archana	Ph.D	2012, Ongoing
11	Ms.S.P.RajaMohana	Ph.D	2013, Ongoing
12	Ms. R.Padmashani	Ph.D	2014,Ongoing

2.2 Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr.A.Soundarrajan	VMware IT Academy Launch and Academic Officers meet	VMware, Bangalore & ICTACT	25.06.2015
2.	Dr.A.Soundarrajan	Design Thinking with SAP	SAP, Bangalore	09.07.2015
3.	Dr.A.Soundarrajan	Code Jam	SAP, Bangalore	10.07.2015
4.	Ms. C. Akalya devi G. Sindhu	Two days hands-on workshop on Android Application Development	-	08.08.2015 - 09.08.2015
5.	Ms. C. Akalya devi G. Sindhu	One Credit course on Software Quality and Automated Testing	-	22.08.2015 - 23.08.2015
6.	Ms. R.Rekha Ms.V.P.Brintha	One credit course on Computer Graphics in Practice	-	26.09.2015 - 27.09.2015
7.	Dr.A.Soundarrajan	One day Capsule course on "Mobile Tracking in Investigation of crime and Cyber Awareness	SP Office Coimbatore	08.10.2015
8.	Dr.A.Soundarrajan	Training Program and Mobile and Email tracking	Cybercrime Wing Coimbatore	17.10.2015

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
9.	Dr.A.Soundarrajan	National Worksoop on Cyber Security	SOPHOS, Micro Focus, Lakshya Labs, Coimbatore	08.01.2016-09.01.2016
10.	Dr. A. Soundarrajan Ms. C. Akalya devi Ms. G. ShymalaGowri Ms. V. P. Brintha	Two days workshop on Cyber Security - Threats and Vulnerability Assessment	Lakshya Labs & and SOPHOS, Coimbatore	08.01.2016 - 09.01.2016
11.	Ms. C. Akalya devi	National conference on Recent trends in Information Technology	-	29.01.2016-30.01.2016
12.	Mr.T.Sivakumar	“Entrepreneurship Awareness Camp”	PSG STEP	29.01.2016-31.01.2016
13.	Dr.A.Soundarrajan Ms. B. Sangeetha	FDP on Database Design and Programming with SQL	Oracle Corporation, Bangalore	21.03.2016 - 25.03.2016
14.	Dr.A.Soundarrajan Ms. B. Sangeetha	BSNL – JTO training classes	-	14.03.2016 - 27.04.2016
15.	Dr. K. R. Chandran Dr. R. Vidhyapriya Dr. A. Soundarrajan Ms. R. Senthilprabha Ms. C. Akalya devi	National Conference on Research and Challenges in IT(REACH-IT 2016)	ICTACT ISACA, Coimbatore	23.04.2016 - 24.04.2016

2.3 Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1.	Ms. N. Archana Ms. C. Akalya devi	Environmental Studies	MHRD, IIT Bombay Remote Center, PSG CT	02.06.2015 - 12.06.2015
2.	Dr.A.Soundarrajan	Implementing Choice Based Credit System in Higher Education Institutions	Centre for Faculty Development, Anna University, Chennai	11.06.2015 - 13.06.2015
3.	Ms. S. Shymala Gowri	Workshop on Parallel programming - basics	Calligotechnologis and Dept of CSE, PSGCT	26.06.2015
4.	Dr.A.Soundarrajan	Training course on ISO 9001:2008 Internal Audit	Zandiq TQM Solutions Pvt Ltd, Coimbatore	27.06.2015
5.	Ms. R. Padmashani	One day workshop on High performance computing	PSGCT-CDAC-Intel	12.08.2015
6.	Dr.S.Sivakumar	International Conference on Innovations in Computer Science and Information Technology (ICICSIT 2015)	Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad	28.08.2015 - 29.08.2015
7.	Dr. R.Vidhyapriya	FDP on Embedded Software Testing – Safety &Security	LDRA, Bangalore	04.09.2015
8.	Dr.A.Soundarrajan	Conference on “Cyber Security”	ISACA Coimbatore Chapter	09.10.2015
9.	Ms. C. Akalaya Devi Mr. Aravindh A	R Programming	Department of Computer Science, PSGCT	10.10.2015

S.No.	Name of faculty	Programme	Organizer	Period
10.	Dr.S.Sivakumar	TEQIP sponsored, "Foundation skills inintegrated product development (FSIPD)",	In association with Anna University, Chennai & NASSCOM held at PSG CT	23.11.2015 - 27.11.2015
11.	Ms. N. Archana	Two day workshop on Automotive Electric Devices Modeling with MATLAB	Dept. of Automobile Engineering, PSG CT	27.11.2015 - 28.11.2015
12.	Ms. C. Akalya devi	Web Application and Mobile Application Data Security	Amrita VishwaVidyapeetham Coimbatore	30.11.2015 - 04.12.2015
13.	Dr.A.Soundarrajan	Role of Visualization in Learning	PSG CARE and Tech Studios	04.12.2015
14.	Dr.S.Sivakumar	TEQIP sponsored, "Applying and Implementing Effective Teaching Methods for Professional Development"	PSGIM, Coimbatore	05.12.2015
15.	Mr. T. Sivakumar Ms. AnithaKumari K Ms. N.HemaPriya	Cyber security – threats and vulnerability assessment	Dept. of IT, PSG CT	08.01.2016 - 09.01.2016
16.	Ms. K.Gokilameena	TEQIP II Sponsored Train-The - Trainers Programme, "Foundation Skills in Integrated Product Development"	Educational Technology Centre, PSGCT, Anna University, NASSCOM	19.01.2016- 23.01.2016
17.	Mr. V.Ilayaraja	FDP on Firewall Installation, Configuration and Management	Paloalto Networks, USA	01.02.2016 - 05.02.2016
18.	Mr. R.Saravanan Ms. V.P.Brintha	Art of Teaching Computer Programming	PSG CARE	06.02.2016
19.	Ms. C. Akalya devi Mr. Aravindh A	Fundamentals of Data Analysis and Analytics	Department of Computer Science, PSGiTech, Coimbatore	12.02.2016 - 13.02.2016
20.	Ms. R. Senthil Prabha, Ms. N.Ravitha Rajalakshmi Ms. E.G.Radhika	Workshop on SPSS(Statistical package for social services)	PSG CARE	12.02.2016 - 13.02.2016
21.	Ms. N. Archana	Workshop on Automotive Embedded Systems and Communication Protocols	Dept. of Automobile Engineering, PSG CT	13.02.2016
22.	Dr.K.Uma maheswari	Train the Trainers Workshop	University Visvesvaraya College of Engineering, Bangalore	21.02.2016
23.	Ms. K.P.ThamilSelvi Mr. R.Saravanan	Graphics and Animation	PSG Polytechnic	22.02.2016 - 26.02.2016
24.	Ms. C. Akalya devi	FDP on "Learning Improvement Techniques"	IIT Madras	10.03.2016 - 12.03.2016

S.No.	Name of faculty	Programme	Organizer	Period
25.	Mr. V.Ilayaraja	FDP on Database Design and Programming with SQL	Oracle Academy	21.03.2016 - 25.03.2016
26.	AnithaKumari K	FDP on Data Center Virtualization Fundamentals	VMWARE & ICTACT at EBET Group of Institutions	06.04.2016-08.04.2016
27.	Mr. R.Saravanan Ms. V.P.Britha	Art of Teaching Computer Programming	PSG CARE	09.04.2016
28.	Ms. K. Gokilameena	TEQIP II sponsored Training programme on Implementation of '5S' in Laboratory	PSGCT in association with Quality Circle Forum of India (QCFI), Coimbatore sub-chapter	20.04.2016 - 26.04.2016
29.	Ms. R. SenthilPrabha	Workshop on "Remote control manufacturing and Design"	Omni Remotes, Singapore	23.05.2016 - 31.05.2016
30.	Dr. K.R.Chandran	Leadership Enhancement for Professors	The Coimbatore Productivity Council	24.05.2016-26.05.2016

2.4 Special lecture delivered

S.No.	Name of faculty	Title of programme	Organizer	Date
1.	Dr.K.Umamaheswari	Clustering Techniques	RVS College of Technology, Coimbatore	19.09.2015
		Theory of Computation: PDA and TM	RVS College of Technology, Coimbatore	19.09.2015
		Health in your hands- 'Accupressure'	ATE Enterprises, Coimbatore	28.09.2015
		Software life cycle management	PSGR Krishnammal College for women, Coimbatore	09.10.2015
		Undecidability in Theory of Computation	SNS College of Technology, Coimbatore	17.10.2015
		Neural Network for Classification Approaches	Coimbatore Institute of Technology, Coimbatore	18.02.2016
		Introduction to UML	SNS College of Technology, Coimbatore	27.02.2016
2.	Dr.R.Vidhyapriya	Workshop on Wireless Sensor Networks	Dept. of CSE, Kumaraguru College of Technology, Coimbatore	12.08.2015
		workshop on Computer Architecture	Dept. of CSE, Eshwar College of Engineering and Technology, Coimbatore	24.08.2015
		Cyber Security Awareness Week	Police Dept, PRS Grounds, Coimbatore	08.10.2015
		FDP on Mobile Computing	Anna University Regional Campus, Coimbatore	11.12.2015
		FDP on Computer Networks	Dept. of CSE, PSG CT	24.05.2016

S.No.	Name of faculty	Title of programme	Organizer	Date
3.	Dr.A.Soundarrajan	Cyber Security and Computer Forensic Investigation	Engineering Staff College of India (ESCI), Hyderabad	29.07.2015
		FDP on Empowering Security through Digital Image Processing – Identity Theft and Social Engineering	Kumaraguru College of Technology, Coimbatore	19.11.2015
		Cyber Defence & Digital Forensic Tools	Engineering Staff College of India (ESCI), Hyderabad	17.12.2015
		Workshop on Cyber Security	Karpagam University, Coimbatore	17.02.2016
		Cyber Defence & Digital Forensic Tools	Engineering Staff College of India (ESCI), Hyderabad	04.03.2016
		Inauguration of National Level technical symposium Illinois 2k16	RVS Technical Campus – Faculty of Engineering, Coimbatore	16.03.2016
		Workshop on Cyber Security	Kumaraguru College of Technology, Coimbatore	19.03.2016
4.	Ms.K.Gokilameena	One credit course – Integrated Product Development (15AF11)	PSG CT	10.05.2016 - 14.05.2016
5.	Dr.S.Sivakumar	Expert Lecture on, “Mobile Internet Protocols (IPs)” at the FDP titled, “Mobile Computing”	CSE Department of Anna University ,Regional Campus, Coimbatore	08.12.2015
		One credit course on “Integrated Product Development”	Department of Automobile Engineering, PSG CT	12.05.2016 - 15.05.2016
6.	Ms. B. Sangeetha	BSNL – JTO (Telecom) EXAM Coaching Class	Department of IT, PSG CT	14.03.2016 - 24.03.2016
		Concurrency Control in DBMs	RVS College of Engineering, Coimbatore	-
		Pointers in C programming	KSR college of Engineering, Tirunchengode	-
7.	Ms.K.AnithaKumari	BSNL – JTO (Telecom) EXAM Coaching Class	Department of IT, PSG CT	18.03.2016 - 21.03.2016
8.	Ms. N. Archana	BSNL – JTO (Telecom) EXAM Coaching Class	Department of IT, PSG CT	30.03.2016 - 31.03.2016

2.5 Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr. K. R. Chandran	Anna University Member – Board of Studies	Karpagam College of Engineering, Coimbatore
		Member – Board of Studies	Kongu Engineering College, Perundurai
2	Dr. V. Mahesh	Member – Board of Studies	Dr. Mahalingam College of Engineering and Technology, Pollachi
		Member – Board of Studies	Avinashilingam University, Coimbatore

S.No.	Name of faculty	Activity / Role	Organization
		Member - QP Passing Board	Anna University of technology, Coimbatore
3	Dr.K.Umamaheswari	Member – Board of Studies	KSR- Tiruchengode, SREC – Coimbatore, KCT – Coimbatore
		University Nominee – BoS in CBCS	Sri Krishna College of Technology, Coimbatore
		Member - QP Passing Board	Anna University- Chennai, KCT, Coimbatore
		Research Paper Reviewer	IEEE – Fuzzy Systems, Intl Journal of Computer and its Applications, USA, Intl. Journal of AI & SC, Inderscience, UK
		PhD Thesis Evaluator	Annamalai University
4	Dr.R.Vidhyapriya	Member - QP Passing Board	Anna University, Chennai
		BoS Member	Bannari Amman Institute of Technology, Sathyamangalam
		Reviewer	The Computer Journal, Automatika, International Journal of Communication
5	Dr.A.Soundarrajan	Coordinator	Cyber Awareness and Prevention Wing
		Academic Advocate Member	Information Security Audit & Control Agency
6	Dr. G. Subashini	Anna University Nominee, BoS	PSR Engineering college, Sivakasi
7	Mr.T.Sivakumar	Remote Center Coordinator	IIT Bombay, ISTE Workshops, Mumbai
		Committee member for grant of Affiliation of Institutions	Anna University, Chennai (Mar 2016)

2.6. Award won by faculty

S. No.	Name of faculty	Nature of award	Awarded by	Date
1	Sivakumar S	Best Paper Award	Mahatma Gandhi Institute of Technology, Hyderabad	29.08.2015

3 DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Research Lab	Intel Core I7-4790 (4th Generation) 8GB DDR3 RAM 1TB Hard disk With Keyboard and Mouse	0.52
2	Research Lab	Metal Kiosk	0.23
3	IT-CC (main) Lab	Dell OptiPlex 3020-MT Core i5-4590 3.30 GHz 4GB DDR3 RAM 500 GB SATA HDD with USB Mouse and Keyboard & DELL 18.5" Wide Screen LED Monitor	30
4	IT-CC (main) Lab	Portable Wireless system (Amplifier)	0.09
5	PGP Lab	Touch Panel Computer	0.89
6	PGP Lab	Industrial Touch Panel Monitor	0.76

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1	Authentication using Touch Dynamics for Mobile Devices	Ms.R.SenthilPrabha Dr.R.Vidhyapriya Ms.N.RavithaRajalakshmi	UGC, New Delhi	March 2014, Completed	2 years	4.20

3.2.1. Sponsored research activities – Abstract

Authentication using Touch Dynamics for Mobile Devices

Keystroke dynamics is the process of identifying individual users on the basis of their typing rhythms, which are in turn derived from the timestamps of key-press and key-release events in the keyboard. The keystroke rhythms of a user are measured to develop a unique biometric template of the users typing pattern for future authentication. Raw measurements available from every keyboard can be recorded to determine Dwell time and Flight time. The recorded keystroke timing data is then processed through the algorithm, which determines a primary pattern for future comparison. Similarly, vibration information may be used to create a pattern for future use in both identification and authentication tasks.

Many researchers have extensively utilized keystroke dynamics extensively for various applications but only a few have examined it utilizing number pad input for the devices particularly when restricted to using a single finger. The present work focuses on the use of keystroke dynamics for the devices with number pad input with touch screens for the devices. Investigations are to be carried out on the different feature extraction methods, feature subset selection methods, classifiers and attempts will be made to suggest right combination of the above for different input devices with number pad.

3.3. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1.	Ms. Veni D	Multi-tier stochastic testing of SQL	Dr. K. R. Chandran Professor & Head, Dept. of IT, PSG CT, Coimbatore	2009, Ongoing
2.	Mr. T. Sivakumar	Design and Development of Image Encryption Algorithms	Dr.R.Venkatesan Professor & Head Department of CSE, PSGCT, Coimbatore	2009, Ongoing
3.	Mr. V. Ilayaraja	Improving QoS in IEEE 802.11e Wireless LAN for Multimedia Applications/ Wireless Networks		2010, Ongoing
4.	Ms. N. HemaPriya	QoS based Optimal Selection and Composition of Web Services	Dr.S.Chandramathi, Dean, Electrical Sciences,Hindusthan College of Engineering and Technology, Coimbatore	2009, Ongoing

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
5.	Ms. T. Vairam	Multipath Routing in Wireless sensor Network	Dr.C.Kalaiarasan Principal, Tamilnadu College of Engineering,Coimbatore	2009, Ongoing
6.	Ms. R. Rekha	Secure Communication in Wireless Body Area Sensor Networks	Dr.R.Vidhyapriya Professor Department of IT, PSGCT, Coimbatore.	2011, Ongoing
7.	Ms. B. Sangeetha	Data Integration in Cloud Computing		2011, Ongoing
8.	Ms.R.SenthilPrabha	User authentication for touch Screen devices using Biometrics		2011, Ongoing
9.	Ms.P.Priya Ponnusamy	Overlay Multicasting in Cloud		2011, Ongoing
10.	Ms. A. C. Sumathi	Security in Cognitive Radio Networks		2011, Ongoing
11.	Ms. N. Archana	Power System Optimization using Soft Computing		2012, Ongoing
12.	Ms. R. Priya	Knowledge based Authentication		2012, Ongoing
13.	Ms. B. Vidhya	Image Compression using novel In-painting Techniques		2012, Ongoing
14.	Ms. R.Padmashani	Parallelization of IDS		2014, Ongoing
15.	Ms.S.Sarathambekai	Multiprocessor scheduling using Swarm Intelligence		Dr.K.Umamaheswari Professor, Department of IT, PSGCT, Coimbatore
16.	Ms. M. Divya	An Effective data cluster through Hybrid Optimization Techniques	2012, Ongoing	
17.	Ms.S.P.RajaMohana	Soft Computing Techniques in Text Mining	2013, Ongoing	
18.	Ms. K.AnithaKumari	Secure Authentication Mechanisms for Large Scale Distributed Systems	Dr. G. SudhaSadasivam Professor, Dept of CSE, PSGCT, Coimbatore	2011, Ongoing
19.	Ms. R.L.Helen Catherine	Energy Management	Dr. A. Soundarrajan Associate Professor, Department of IT, PSGCT, Coimbatore	2014, Ongoing
20.	Mr.K.Thangarajan	Machine Design		2014, Ongoing
21.	Mr.N.R.Naharaj	Power Quality Management		2014, Ongoing
22.	Mr. S. Ramesh	Power systems		2015, Ongoing

3.3.1 Doctoral research – Abstract

Certain investigations on bio-inspired computational techniques for email spam classification

Candidate: Ms. D. Karthika Renuka

Supervisor: Dr. P. Visalakshi

E-mail is one of the most popular modes of communication due to its easy accessibility and low cost. Internet has made possible, the recent explosion in research work and human knowledge. Communication can happen to any person anywhere in the world at any time at the click of the mouse. Due to the advantages of speed, time and cost effectiveness, many people use it for commercial advertisement purposes resulting in unwanted e-mails at user inboxes. Those e-mails which are useful are known as ham, while the unwanted commercial e-mails, are known as spam. Managing e-mails is a serious problem for both individuals and organizations. This research investigates the use of both feature extraction and feature selection techniques in order to improve the classification performance. The first chapter deals with feature extraction based on the dimensionality reduction technique namely Latent Semantic Indexing (LSI).

The proposed methods include LSI based Naive Bayes (NB) classifier and LSI based Support Vector Machine (SVM) classifier. The second chapter makes use of the evolutionary algorithms such as Particle Swarm Optimization (PSO), Ant Colony Optimization (ACO), Firefly algorithm (FF) for feature selection, where the performance of a classifier is used to evaluate the quality of a feature subset. Among these proposed methods, FF-NB algorithm showed better performance in classifying the e-mails. A hybrid technique based on Group Search Optimization (GSO) and NB classifier is proposed in third chapter. GSO inspired by animal behaviour, especially animal searching behavior, is an optimization algorithm which is based upon the group specialty. The fourth chapter includes a technique that employs a hybrid Firefly-Group Search Optimizer algorithm (FGSO) for feature selection. The FGSO algorithm continues the classification model of FF and GSO. The results show that the proposed FGSO-NB method produces a high quality of feature subset and also overcomes the problem of local optima, thus increasing the accuracy of the NB classifier. A multi-classifier system where the three classifiers namely Decision Tree classifier, NB classifier and Neural Network classifier are combined by using voting-based weighted rule is proposed in fifth chapter. The performance of the proposed FGSO based Weight based Multiple Classifier (FGSO-WMC) for e-mail spam classification has been evaluated using the measure precision, recall and accuracy.

3.4. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals	Online database
1	GRD Library	34,450	1816	276 0	05	24	NIL	11
2	Department Library Information Technology	400	-	-	-	-	-	-

3.5. Board of studies

S.No.	Date	Agenda	External Experts
1	31.10.2015	<ul style="list-style-type: none"> • Discussion on Vision and Mission of the department • Discussion on Programme Educational Objectives of B.Tech - IT • Discussion on Programme Outcomes of B.Tech - IT • Finalization of the Syllabi for B.Tech – Information Technology Programme - 2015 Regulations 	<p>1. Dr Zayaraz Professor, Dept. of Computer Science & Engg, Pondicherry Engineering College, Pondicherry</p> <p>2. Mr. Murali Chellamuthu Technology Analyst, Infosys, Chennai</p> <p>3. Mr. Jaimon Jose Distinguished Engineer, Novell Software Development, Bangalore</p>
2	26.03.2016	<ul style="list-style-type: none"> • Finalization of the Syllabi for B.Tech – Information Technology Programme - 2015 Regulations • Discussion on Course plan for B.Tech – Information Technology Programme • Finalization of the additional elective for B.Tech – Information Technology Programme 2012 regulations 	<p>1. Dr. R Shanmugalakshmi Associate Professor, Dept. of Computer Science & Engg, Government College of Technology, Coimbatore</p> <p>2. Dr. Zayaraz Professor, Dept of Computer Science & Engg, Pondicherry Engineering College, Pondicherry</p> <p>3. Mr. Jaimon Jose Distinguished Engineer, Novell Software Development, Bangalore</p>

3.6. Research publications

3.6.1. Papers published in international journals

1. Ramamurthy B and Chandran K R, "CBMIR: Content Based Medical Image Retrieval Using Multilevel Hybrid Approach", *International Journal of Computers, Communications & Control*, Vol. 10, Issue 3, pp. 382-389, June 2015
2. Veni D and Chandran KR, "Analysis of Data Mining Dataset Using Fuzzy Based Unnested Select SQL Queries", *Research Journal of Applied Sciences, Engineering and Technology*, Vol. 11, Issue: 3, pp. 267-273, Sep 2015.
3. Veni D and Chandran K R, "Efficient Processing of Information Retrieval Using Fuzzy Sql Queries", *Australian Journal of Basic and Applied Sciences*, Vol. 9, Issue: 20, pp. 644-650, June 2015.
4. Ilayaraja V, Venkatesan R and Allampati Madan, "Diffserv Based QoS Enhancement In IEEE 802.11e Wireless LAN using ARCR", *International Journal of Applied Engineering Research (IJAER)*, Research India Publications, Vol. 10, No. 55, pp. 46-50, June 2015.
5. Ilayaraja V and Vasanthakumar K, "Improving QoS using Adaptive TXOP Allocation in IEEE 802.11e WLAN", *IJCA Proceedings on International Conference on Innovations in Computing Techniques*, ICICT, Vol. 1, pp. 15-21, July 2015.

6. AnithaKumari K, SudhaSadasivamG and Rohini L, "A Symmetric Two-Server Password based Authentication and Key Exchange Protocol Deployed in PaaS", *IJCA Proceedings on International Conference on Innovations in Computing Techniques*, ICICT 2015, Vol. 2, pp. 1-7, July 2015.
7. Sugapriya K, Kishore Kumar K, Divyaprabha and AnithaKumari K, "Image Zooming Enhancement using DWT and Fanbeam Projection in Interpolation Technique", *IJCA Proceedings on International Conference on Innovations in Computing Techniques*, ICICT 2015, Vol. 3, pp. 20-24, July 2015.
8. AnithaKumari K, SudhaSadasivamG and Rajesh S, "ECC based Asymmetric Two-Server Password Authentication Scheme with Provable Security", *International Journal of Applied Engineering Research*, Vol. 10, No.55, pp. 20 – 29, June 2015.
9. Bala Sri R Swetha, Gokilameena K, "Article: Smart Grid - A Network based Intrusion Detection System", *IJCA Proceedings on International Conference on Innovations in Computing Techniques*, Vol. 3, pp. 29-36, July 2015.
10. Kamatchi T P, Gokilameena K, "Article: Secured User Authentication using Encrypted Palmprint", *IJCA Proceedings on International Conference on Innovations in Computing Techniques*, Vol. 3, pp. 25-29, July 2015.
11. DhivyaM and Umamaheswari K, "D-MBPSO: An Unsupervised Feature Selection Algorithm Based on PSO", *Proceedings of the 6th International Conference on Innovations in Bio-Inspired Computing and Applications, Advances in Intelligent Systems and Computing* 424, © Springer International Publishing Switzerland 2016, pp. 359 – 369, December 2015.
12. Sarathambekai S, Umamaheswari K, "Task Scheduling Using Multi-objective Particle Swarm Optimization with Hamming Inertia Weight", *Proceedings of the International Conference on Soft Computing Systems*, Vol. 398, *Advances in Intelligent Systems and Computing*, pp. 57-65, December 2015.
13. Rekha.R, VidhyapriyaR and GeethaRajakumari R, "Secure Communication in BAN using Modified Fuzzy Vault Scheme", *International Journal of Computer Applications*, pp. 37-42, July 2015.
14. Rekha.R, Vidhyapriya R and GeethaRajakumari R, "Electrocardiogram – Fuzzy Based Secure Healthcare System Using Time and Frequency Domain Features", *International Journal of Applied Engineering Research*, Vol. 10, No.55, June 2015.
15. Senthilprabha R, VidhyaPriya R, RavithaRajalakshmi N, "Performance analysis for a Touch dynamic authentication system with reduced feature set using neural networks", *IETE Journal of Research*, Sep 2015.
16. SenthilPrabha R, Vidhyapriya R, Harikrishnan, " Touch Performance Analysis on The Feature Reduction In User Authentication System Using Single Swipe On Touch Screen Devices", *International Journal of Applied Engineering Research (IJAER)*, Vol. 10, No.2, pp. 1415-1419, June 2015.
17. SenthilPrabhaR, Vidhyapriya R, BrindhaV P, "Biometric lock pattern authentication for smart phones ", *International Journal of Applied Engineering Research (IJAER)*, Vol. 10, No.55, pp.34-39, June 2015.
18. Sangeetha B, VidhyapriyaR and TherumalPathy S P, "Semantic Ontology Mapping using Extreme Learning Machine with Dimensionality Reduction", *International Journal of Applied Engineering Research*, Vol. 10, No.55, pp. 1529-1533, June 2015.
19. Sangeetha B, VidhyapriyaR and TherumalPathy S P, "Semantic Mapping using Extreme Learning Machine", *IJCA Proceedings on International Conference on Innovations in Computing Techniques (ICICT 2015)*, Vol. 3, pp. 1-5, June 2015.
20. Sangeetha B, VidhyapriyaR and Monikasree R, "Semantic Ontology Mapping using Support Vector Machine", *IJCA Proceedings on International Conference on Innovations in Computing Techniques*, Vol. 3, pp. 6-11, July 2015.
21. SivakumarS, LehanyaV, "Tabu Search Algorithm for Localization in Wireless Sensor Network", *International Journal of Computer Applications*, No.1, pp.10-14, July 2015.
22. SivakumarS, Gavya.P.V, "Location Estimation in Wireless Sensor Network using H-PSO Algorithm", *International Journal of Computer Applications*, No.2, pp.27-32, July 2015.
23. SivakumarS, Venkatesan R, "Cuckoo Search with Mobile Anchor Positioning (CS-MAP) Algorithm for Error Minimization in Wireless Sensor Networks", *AMSE Journal*, Vol.19, No.1, pp.33-51, July 2015.
24. SivakumarS, Geetha Y P, "Bat Optimization Algorithm with MAP for Localization in Wireless Sensor Networks", *International Journal of Applied Engineering Research*, Vol.10, No.81, pp.214-220, Nov 2015.
25. SivakumarS, Venkatesan R, "Meta-Heuristic Approaches for Minimizing Error in Localization of Wireless Sensor Networks", *Applied Soft Computing Journal, Elsevier*, Vol.36, pp.506-518, Nov 2015.
26. SivakumarTand Venkatesan R, "A Novel Image Encryption Using Calligraphy Based Scan Method and Random Number", *KSII Transactions on Internet and Information Systems*, Vol. 09, No. 06, pp. 2317 - 2337, June 2015.

27. Archana N, Vidhyapriya R, Ashok Kumar L, Berose Abdul Kadar A, "A Survey on Power Quality Improvement of Multi Machine Systems Using FACTS Devices", *International Journal for Research in Applied Science & Engineering Technology*, Vol. 3, pp. 216-222, Oct 2015.
28. Ashok kumar L. Archana N. and Vidhyapriya R., "Power Quality Improvement of Grid Connected Wind Energy Systems Using Statcom-Battery Energy Storage System", *ARPJ Journal of Engineering and Applied Sciences*, Vol. 10, No. 21, pp. 9872-9879, November 2015.
29. Archana N, Iswariya M, " Vulnerability Assessment for Web Application ", *International Journal of Advanced Research in Computer Science and Software Engineering*, Vol. 5, No. 12, pp. 244-250, December 2015.
30. Vairam T and Kalaiarasan C, "PSO based Multipath Routing in Wireless Sensor Network", *Advances in Intelligent Systems and computing*, Vol.2, pp. 469-477, December 2015.
31. Sarathambekai S and Umamaheshwari K, "Task scheduling using Multi-Objective Particle Swarm Optimization with Hamming Inertia Weight", *Advances in Intelligent Systems and computing*, Vol. 2, pp. 57-65, December 2015.
32. Sivakumar T, and Venkatesan R, "A New Image Encryption Method Based on Knight's Travel Path and True Random Number", *International Journal of Information Science and Engineering*, Vol. 32, No. 1, pp. 133-152, January 2016.
33. Archana N, Vidhyapriya R, Ashok Kumar L, Berose Abdul Kadar A, "Power Quality Improvement in A Multi Machine System using a STATCOM", *International Journal of Research in Advent Technology*, Vol. 4, No. 1, pp. 16-22, January 2016.
34. Archana N, Vidhyapriya R, "A Bibliographic Survey on Power System Optimization Using Soft Computing Techniques", *International Journal of Advanced Engineering Technology*, Vol. 7, pp. 327-333, March 2016.
35. Sangeetha B, Vidhyapriya R, Sindhu G, "Integrating Heterogeneous Ontologies Using Fuzzy Rule Based Systems And Boosting Algorithm", *Int J Adv Engg Tech*, Vol. 7, Issue 2, pp. 247-250, April-June, 2016.
36. Sivakumar T, and Anusha T, "A New Symmetric Cryptosystem using Randomized Parameters of SHA-512 and MD5 Hash Functions", *International Journal of Innovations in Engineering and Technology*, Vol. 6, No. 4, pp. 600-606, April 2016.
37. Anitha Kumari K, Sudha Sadasivam G, Rohini L, "An Efficient 3D Elliptic Curve Diffie-Hellman (ECDH) Based Two-Server Password-Only Authenticated Key Exchange Protocol With Provable Security", *IETE Journal of Research*, pp. 1-12, April 2016.
38. Anitha Kumari K, Sudha Sadasivam G, Rohini L, "An Efficient 2D Diffie - Hellman Based Two-Server Password-Only Authenticated Key Exchange Protocol", *International Journal of Advanced Engineering Technology*, Vol. 7, pp. 457 – 462, May 2016.

3.6.2. Papers published in national journals

1. Manaj Kumar Voona, Ravitha Rajalakshmi N, "Touchless Palm Biometrics", *National Journal of Technology*, Vol.12 No.1, pp. 17-22, Mar 2016.
2. Sivakumar S and Venkatesan R, "Performance Evaluation of Hybrid Evolutionary Algorithms in Minimizing Localization Error for Wireless Sensor Networks", *JSIR Journal*, Vol. 75, No.5, pp.289-295, May 2016. (Impact Factor 0.5)

3.6.3. Papers presented in national conferences

1. King Prakatheesh C and Soundarajan A, "Evading Phishing attacks through smart extension", *Proceedings of the National Conference on Research and Challenges in IT*, 22-23 April, 2016,
2. Dharma Dharshini, Rekha R and Vidhyapriya R, 'Power System Planning Using ANN with Fuzzy Logic and Wavelet Analysis', *Proceedings of National Conference on Research and Challenges in IT (REACH-IT 2016)*, PSG College of Technology, Coimbatore, pp. 36-40, April 2016.
3. Rajeswari G and Vidhyapriya R, 'Cognitive Radio Femtocell Network for Throughput Maximization', *Proceedings of National Conference on Research and Challenges in IT (REACH-IT 2016)*, PSG College of Technology, Coimbatore, pp. 81-86, April 2016.
4. Jayesh Ghanekar, Akalya devi C, "Labview-based Real Time Monitoring and Database Management System", *National Conference on Research and Challenges in IT (REACH-IT 2016)*, April 2016.
5. Shymala Gowri S, Sasidharan R, "A black box penetration testing approach to detect vulnerabilities in web service DoS attacks", *National Conference on Research and Challenges in IT*, April 2016.

6. AnithaKumari K, SudhaSadasivam G, Sugapriya K, "A Novel Encryption Technique Using Pascal Triangle for Image Cryptosystem", *Proceedings of the National Conference on Research and Challenges in IT*, April 2016.

3.6.4. Papers presented in international conferences

1. Sivakumar S, "Bat Optimization Algorithm with MAP for Localization in Wireless Sensor Networks", *Proceedings of Int. Conf. on Innovations in Computer Science and Information Technology (ICICSIT 2015)*, Mahatma Gandhi Institute of Technology, Hyderabad, pp. 100-106, Aug 2015 (ISBN No: 978-93-85100-08-06).
2. Pravinth raja S, Umamaheswari K, "IRIS Recognition Modality with Fuzzy k-Means Clustering Algorithm for Improving Security" *Third International Conference on Emerging Research in Computing, Information, Communications and Applications ERCICA - 2015*, 31st July -01st August, 2015, NMIT, Bangalore.
3. Sumitra. S and Aravindh A, "Kernel Online Multi-task Learning", *International Conference on Computational Intelligence, Cyber Security and Computational Models*, 2016.

3.7. Visits abroad

3.7.1. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1	V.M. Keerthanaa	Flinders University, Australia	July - December 2015	Summer Term Program in game designing and app development
2	Neethika Nalin Chander	Glasgow Caledonian University, Scotland	June - July 2015	Short Term Summer Course

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	BTech IT G1 - I Year	56
2	BTech IT G2 - I Year	55
3	BTech IT G1 - II Year	68
4	BTech IT G2 - II Year	69
5	BTech IT G1 - III Year	67
6	BTech IT G2 - III Year	71
7	BTech IT G1-IV Year	72
8	BTech IT G2 - IV Year	64
9	MTech IT-I Year	14
10	ME BCS - I Year	11
11	M.Tech IT - II year	11
12	ME BCS – II Year	11

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1	Placement wokshop	-	100	27.06.2015
2	Mock interview	-	-	26.12.2015
3	Orphanage Visit	-	100	26.01.2016
4	Workshop on Node JS	Mr. Santhosh, Researcher, TCS Innovation Labs	60	20.03.2016
5	Invaduarz	-	300	12.04.2016

4.3. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1	Cultural events	10	19
2	Technical Events	19	63
3	Sports events	08	27
4	Paper presentation	2	-

4.4. Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1	Kousshik Ram.S.R	131216	Sargam	Best Singer - Solo	Karpagam University, Coimbatore	29.01.2016
			--	Kala YuvaRathna Award	PSG Sons and Charities	30.01.2016
			Riviera	Best Singer	VIT,Vellore	14.02.2016
			Kuruksetra	Best Singer Award	Sastra University, Tanjore	20.03.2016
			Pranaya	Second prize - band	Karpagam University, Coimbatore	26.02.2016
			Pranaya	Solo Singing – First Prize		26.02.2016
			Yugam	Solo Singing – First Prize	Kumaraguru College of Technology, Coimbatore	13.01.2016
			-	First prize – Rhythms band	Suraj Technology, Coimbatore	11.10.2015
			Epiphany	Best Singer	Kumaraguru College of Technology, Coimbatore	13.02.2016
2	Cibhin Bharathi M	141443	Sargam	Band	Karpagam University, Coimbatore	29.01.2016
			Pranaya	Second prize - band		26.02.2016
			Epiphany	Best Singer	Kumaraguru College of Technology, Coimbatore	13.02.2016
			Yugam	Solo Singing – First Prize		13.01.2016
			-	First prize – Rhythmsband	Suraj Technology, Coimbatore	11.10.2015
3	V Divya	14MA02	-	Best All Rounder	PSG Tech Alumni Association	-
4	M Abhinaya	14MA31	-	Best outgoing student Award	Tech Day 2016 PSG CT	14.03.2016
5	J.Vaishnavi	141255	IT Wizard quiz	Second	IT Department, PSG CT	13.01.2016
			Trail the Tracit	First	ITA, PSG CT	13.03.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
			Spotlight- verve	First	ELS Club, PSG CT	12.03.2016
6	Aneesha Fathima.H	14I207	Mini marathon	Third	PSG CT	28.02.2016
			Intramurals Basket Ball	Runners	PSG CT	-
			CIT Trophy (BasketBall)	Runners	CIT, Coimbatore	-
7	T.S.Muthu Gomathi	14I231	Trial the tacit event	First	PSG CT	12.03.2016
			Mind Wrap	Second	PSG CT	12.03.2016
8	Boobalan.S	14I211	Turbo	Second	PSG CT	12.03.2016
			Clash of Fury	Second	PSG CT	12.03.2016
9	Deivanai.C	14I212	Turbo	Second	PSG CT	12.03.2016
			Artymedes	Medal	Fine arts club	11.03.2016
10	A.AbuYasar Arafath	14I205	4*400 relay	Third	PSG CT	-
			400 metres	Third	PSG CT	-
			800 metres	First	PSG CT	-
			1500 metres	Second	PSG CT	-
			400 metres	Second	PSG CT	-
			4*400 relay	First	PSG CT	-
			4*100 relay	First	PSG CT	-
			PSG TECH Mini Marathon	Third	PSG CT	28.02.2016
			Varnam Marathon	Tenth	Varnam, Coimbatore	-
			CBE Marathon	Ninth	-	-
			Interzonals Kho-Kho	Quarter finalist	Interzonal, Coimbatore	-
			Thiyagaraja Kho-Kho	Third	Thiyagaraja College, Madurai	-
			Athletics- Intramurals	First	PSG CT	-
			Athletics- Centies (overall)	Second	PSG CT	-
			Intra college ball badminton	Fifth	PSG CT	-
Intracollege Fives Football	First	PSG CT	-			
11	M.Lakshmanan	14I225	National Level Action Plan	First	PSG CT	-
			Code breaker	First	PSG CT	12.03.2016
			Java Hunt	Second	PSG CT	12.03.2016
			Agent 47	Third	PSG CT	12.03.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
			Algomaniac	Third	PSG CT	12.03.2016
			Impromptu	First	GCT	07.03.2016
			Code loggers	First	GCT	07.03.2016
			Project Presentation	Second	GCT	08.03.2016
			Indian Students Forum	Best Action plan winner	IUCEE-SPEED	11.01.2016
12	K. R. Karthik	14I219	Cricket quiz	First	PSG CT	20.09.2015
			NSS Social quiz	Second	PSG CT	20.09.2015
			NSS Constitution Quiz	First	PSG CT	20.09.2015
			Intramz General Quiz	Third	PSG CT	20.09.2015
			Java Hunt	Second	PSG CT	13.03.2016
13	ParthOjha	14I235	NSS Constitution Quiz	First	PSG CT	20.09.2015
			Idea presentation	First	ICICI, Mumbai	28.01.2016
			Java Hunt	Second	PSG CT	13.03.2016
14	Nivethan	14I234	NSS Constitution Quiz	First	PSG CT	20.09.2015
			Cricket Quiz	First	PSG CT	20.09.2015
			NSS Social Quiz	Second	PSG CT	20.09.2015
			Intramz general quiz	Third	PSG CT	20.09.2015
			Java Hunt	Second	PSG CT	13.03.2016
15	Tharankini N	14I254	IT wizard	First	ITA, PSG CT	13.01.2016
16	Saro Krishna	14I243	Badminton Doubles	First	PSG CT	-
			All Rounder 1 year	First	PSG CT	-
17	Malavika D	14I227	Ship Wreck	First	PSG CT	-
18	ShruthiVijayan	14I251	Spotlight- verve by ELS CLUB	First	PSG CT	08.02.2016
19	R. Aarthi	14I201	Park Trophy	First	PARK College of Technology, Coimbatore	-
			Centies	First	PSG CT	-
			Sasurie trophy	First	Sasurie College,	-

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
					Coimbatore	
20	Maria CeceliBrittinna	141333	Spotlight	First	Verve15, PSG CT	08.02.2016
			Kics'15 - Chess	Second	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 17.08.2015
21	A.P.Mahesware	141332	Mehandi	First	Virali, PSG CT	-
22	Nishita Raj	141335	Spotlight	First	Verve, PSG CT	08.02.2016
			Puppet Show	First	BRC Lit Fest'15, Coimbatore	18.03.2016
23	Abirami A	141302	Sardar Patel- Essay Writing	First	Government of Tamil Nadu	28.11.2015
			-	BEST WRITER AWARD	PSG CT	2015-2016
			-	LELVEL 14 WRITER	allpoetry.com	2015-2016
24	Akshayaa. C. V	141308	ICICI Trinity Idea Selection Round	Winner	IIT Madras-CSIE	28.01.2016
			Spotlight	First	Verve15, PSG CT	08.02.2016
			Connections	Third	Virali, PSG CT	-
25	Aishwarya R	141304	NCC Interwing Competition (Foot Drill)	First	PSG CT	12.03.2016
			(Flag Area)	First	PSG CT	12.03.2016
			(Kit Layout)	Second	PSG CT	12.03.2016
			Avant Grade Event(Experiential Learning)	First	PSG CT	12.03.2016
26	T.Bavithra Laxmi	141314	Jhunt	Winner	ITA, PSG CT	12.03.2016
27	R.Sindhuja	141348	Spotlight	First	Verve, PSG CT	08.02.2016
			Connections	Third	Virali, PSG CT	-
28	Akilan.M	141305	ICICI Trinity Idea Selection Round	Winner	ICICI BANK, Mumbai	25.08.2015
29	Dharun Kumar N	141316	Jhunt	Winner	ITA, PSG CT	12.03.2016
			IT Wizard	Winner	ITA, PSG CT	13.01.2016
			ICICI Trinity Idea Selection Round	Winner	ICICI BANK, Mumbai	25.08.2015
			Jhunt	Winner	ITA, PSG CT	12.03.2016
			NCC Interwing Competition	First	PSG CT	12.03.2016

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
30	Mahesh Kumar S	14I331		First	PSG CT	12.03.2016
31	Abirami S	15I301	Shuttle badminton	First	PSG CT	-
32	K.R Divya Bharathi	15I308	PSG Tech Mini Marathon	Silver medal	PSG CT	28.02.2016
33	Giftaangeline	15I311	Tennikoit	Runner	PSG CT	-
34	V.Nandhini	15PB04	Symposium	Proficiency Award	PSG CT	12.03.2016
35	S. Shiva Shangari	14I246	Clash of fury-Invadaurz	Second	ITA, PSG CT	13.03.2016
36	S Shruthi	14I248		First	ITA, PSG CT	13.03.2016
36	S Shruthi	14I248	Mind wrap-Invadaurz	First	ITA, PSG CT	13.03.2016
37	R Preethi	14I237	In for fun-Invadaurz	First	ITA, PSG CT	13.03.2016
38	N.K.Nandha Kumar	14I232	Code Breakers-Invadaurz	First	ITA, PSG CT	13.03.2016

4.5. Final year project work

4.5.1. UG project (regular)

S.No.	Roll No.	Name of the student	Title of the project	Guide	Industry associated
1	12I322 12I340 12I350 12I353	B.Karunya PA.Saranya C.Suganya C.Sajithra	Review Spam Detection using feature selection methods	Dr.K.Umamaheswari	-
2	12I304 12I260	J.Akila Vissnu Kumar	Attribute Extraction	Dr.D.Karthika Renuka	-
3	13I431 12I259 12I207 12I248	S.Arjun C.Vimalesh L.Aravind B.Shricharan	Ontology based Query Expansion	Ms.B.Sangeetha	-
4	12I214 12I229 13I439 13I445	D.Gokulnath P.Muthupandiyam A.Sameer Nawaz G.Yogendra Kumar	Fraud detection in health	Ms. R.Senthilprabha	-
5	12I329 12I327 12I319 13I467	R Mounisha R.LavanyaMeenakshi J.Jothy K.Logesh	Web Application for service selection using Genetic Algorithm	Ms.N.Hemapriya	-
6	13I468 13I465 12I354 12I321	Mohamed Riyaz J.Harshavardhan R.Thompson V.Karthick raja	Comment sentimental analysis	Ms.N.Archana	-
7	12I344 12I334	Shubankar RadheeshUchil B.Praveenkumar	Movie Recommender System	Ms.R.Padmashani	-

S.No.	Roll No.	Name of the student	Title of the project	Guide	Industry associated
	12I326 12I351	RM.KishanGrish S.Sugavaneshwaran			
8	12I209 13I438	K.BalaNivedini T.Poushika	Touch Screen Based Shopping Mall Portal	Ms.E.G.Radhika	-
9	12I346 12I352 13I466 12I330	V.T.Srilekha R.M.Suruthi PH.Kiruthika Naveen Muthusamy	Swarm intelligence for traffic light scheduling	Ms.S.Sarathambekai	-
10	12I308 12I309 12I360 12I323	M.Arunprasath M.Athiyamaan P.Sarnjaykrishna D.Kathiresan	Feature Selection using Artificial Bee Colony Algorithm	Ms.S.P.Rajamohana	-
11	12I307 12I313 13I461 13I470	P.B.Arthi S.Dharshana T.Angaleeshwari S.Tamilarasi	Visual Search	Mr.V.Ilyaraja	-
12	12I314 12I358 13I462 13I463	GM.Ganapathy Vikasjain ArvinthMuruganraju P.Bharanidaran	Two factor authentication using mobile application	Ms.C.Akalya devi	-
13	12I213 12I230 12I251 12I258	K.Geetha R.Nivetha S.Suganya S.Vidhyalakshmi	Classification algorithm to detect web attacks	Ms.S.Shymalagowri	-
14	12I240 12I242 13I434 13I444	C.Renuga Devi S.Sagithya G.Jayanthi P.Viji	Student feedback analyzer using sentimental analysis technique	Ms. G. Sindhu	-
15	12I215 13I432 13I433 13I437	S.Gowtham P.M.Dharmendhara G.Dhivya S.Nithya	Rating prediction via exploring service reputation	Mr. A.Aravindh	-
16	12I223 13I435 13I445	S.Kousik R.Kiruthikadevi K.S.VishnuPriya	E-Home	Dr. A.Soundarrajan	-
17	12I305 12I335 12I356	K.Anitha T.Preethiga V.Vignesh	Implementation of REMENDIUM as an Android application	Mr.T.Sivakumar	-
18	12I303 12I332 12I339	Aishwarya rani D.S.Nivithashri S.Sandhiya	Privacy preservation by hiding sensitive rules using fuzzy-firefly algorithm	Dr.D.Karthika Renuka	-
19	12I211 12I238 12I243 12I436	J.Deepika R.Priyanka R.Saranya P.Narmadha	ECG Beat Classification using Hybrid Technique	Ms.R.Rekha	-
20	12I249 13I442	A.Sofiya G.Subbulakshmi	Multiprocessor Scheduling in NSPSO algorithm	Ms. K.Anithakumari	-

S.No.	Roll No.	Name of the student	Title of the project	Guide	Industry associated
21	12I206 12I226 12I244 13I441	G.Archana G.Monika M.SathiyaPriya V.ShreeHarini	Secured Access Control for Mail Server	Mr.R.Saravanan	-
22	12I254 12I324	V.Surya LD.Kavinya	Power Search using Full Text Search	Ms.V.P.Brintha	-
23	12I301 12I302 12I310 12I328	S. Abinaya S.Abitha P.Bakiyavathy R.Menaka devi	Android application for detecting fake notes	Dr.S.Sivakumar	-
24	12I234 12I235 12I236	S.Prasanth S.Praveen S.Preethi	Resource optimizer	Ms. R. Padmashani	-
25	12I320 12I311 12I343	D.Kabila Y.BrianChriswin R.Shanushree	Secure Image Deduplication	Ms.V.P.Brintha	-
26	12I312 12I315 12I355 13I469	S.Deepika B.Gunanandhini VanathiThiyagarajan R.Pavithra	Desktop application for Image categorization	Ms.N.Ravitha Rajalakshmi	-
27	12I228 12I247	R.Muralidharan K.SriSharath Ram	Statistical Summarization of online reviews	Mr. A. Aravind	-

4.5.2. PG project

4.5.2.1. M.Tech (Information Technology)

S.No.	Roll No.	Name of the student	Title of the project	Guide	Industry associated
1	14MA02	Divya V	Ontology mapping based on Multi strategy Decision Making	Ms.B.Sangeetha	-
2	14MA05	Prathiba S	Color image encryption using DNA sequence and hyper-chaos system	Dr. G.Subashini	-
3	14MA07	Sasidharan R	Analysis of SSO Protocols to find the Vulnerability levels against well-known attacks	Ms.S Shymala Gowri	-

4.5.2.2.ME – Biometrics and Cyber Security

S.No.	Roll No.	Name of the student	Title of the project	Guide	Industry associated
1	14PB08	K.ShanmugaPriya	Detection and Analysis of Advanced Persistent Threat	Mr.T.Siva Kumar	-
2	14PB01	Chandramathy	KDD Dataset feature selection using Random Forest tree	Ms.Padmashini	-

4.6. Competitive exams

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1.	GATE	1	12I338	Sajithra C
2.	GRE	7	12I354	Thompson R
			12I311	Brian Chriswin Y
			12I334	PraveenS
3.	TOEFL	1	12I354	Thompson R
4.	MAT	1	12I350	Suganya S
			12I326	KishanGrish R M
			12I360	Sarnjay Krishna P
			12I329	Kathiresan D
			12I309	Athiyaman M
5.	CAT	1	12I347	Sriram K
			12I317	Harish M
			12I344	ShubhankarRadheeshUchil

4.7. Placement

4.7.1. UG Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	Microsoft Corporation, Bangalore	1	12I346	Srilekha V T	18
2.	Oracle India Private Ltd, Bangalore	3	12I201	Abhirami V	7.5
			12I254	V.Surya	
			12I324	Kavinya L D	
3.	Oracle Financial ServiceSoftware Pvt Ltd , Bangalore	3	12I253	SuriyaVelusamy	5.6
			12I343	Shanu Shree R	
			12I348	Subashree D	
4.	PayPal India Pvt.Ltd, Bangalore	2	12I202	Abirami.A.K	20.5
			12I225	Megha Ann Anil	
5.	Novell Software Development India Ltd, Bangalore	4	12I203	Akilan Maris M A	11.9
			12I220	KarthikaDhanam.K	
			12I349	Subhashini D	
			12I342	ShabeerAhamed S	
6.	Cisco Inc, Bangalore	3	12I243	Saranya R	13.5
			12I248	ShricharanBaskaran	
			12I353	Swathy T M	
7.	Intel, Bangalore	1	13I442	Subbulakshmi	19.75
8.	Tata Consultancy Services, Chennai	1	12I244	M.Sathiyapriya	3.4
9.	Myntra, Bangalore	2	12I245	SebastinArockiaAkash	19.6
			12I341	Sathveekha L	
10.	Infoview Technologies Ltd., Chennai	1	12I247	ShriSharath Ram K	6
11.	Infibeam, Bangalore	1	12I204	AnguPriya.M	8
12.	Intel India, Bangalore	1	12I241	Rubhadharshini R	9.5

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
13.	Mu Sigma Business Solutions, Bangalore	3	12I208 12I224 12I344	Baby Shalini.K R. Krithika ShubhankarUchil	6
14.	OAT Systems Software India Ltd, Bangalore	2	12I221 12I233	Keerthi P PranavAnbuvaran	7.5
15.	Temenos India Pvt Ltd, Bangalore	1	12I250	G.Sruthi	7.5
16.	Thorogood Associates, Bangalore	1	12I227	Monisha Mohan	11.5
17.	Robert Bosch, Coimbatore	4	12I210 12I239 12I255 12I306	Charanya.R Rakeshkumar K R.Sushmitha Anitha K	4
18.	Ugam Solutions, Coimbatore	2	12I260 12I304	VissnuKumaar.R Akila J	6
19.	Mahindra com viva, Bangalore	3	12I235 12I320 12I339	Praveen S Kabila D Sandhiya S	6
20.	Zoho, Chennai	1	12I256	Vaishnavi.R	6.5
21.	Bridge i2i Analytical Research	1	12I205	Anirudh S	4.5
22.	NTT Data, Chennai	2	13I436 13I439	Narmadha.P Sameer Nawaz.A	4
23.	Multicorewareinc,	1	12I237	Priyadarsini S	5
24.	Accenture Services Private Ltd, Bangalore	18	12I206 12I212 12I218 12I231 12I232 12I234 12I240 12I252 12I303 12I311 12I316 12I325 12I327 12I329 12I332 12I355 12I358 13I462	Archana G DikshaSharan Juwairya.M Ponmani.T Prabhuram.C Prasanth S RenugaDevi.C SuranjanaRanganathan Aishwarya Rani G Brian Chriswin Y HariPriya R Keerthana K LavanyaMeenakshi R Mounisha R Nivithashri D S Vanathi T Vikas Jain M ArvinthMuruganraju	3.5
25.	Tata Consultancy Services, Chennai	2	12I207 13I440	Arvind.L Sasikumar S	3.4
26.	CTS, Chennai	2	12I228 12I326	Muralidharan R KishanGrish R M	3.3
27.	IBM, Bangalore	2	12I236 12I310	Preethi S Bakiyavathy P	3.15

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
28.	Wipro, Bangalore	4	12I211 12I249 13I442 12I328	Deepika J Sofiya A Subbulakshmi Menaka Devi R	3.2
29.	Solvanni Technologies India Private Limited,	1	12I258	VidhyaLakshmi.S	3.12
30.	Infosys, Bangalore	7	12I213 12I223 13I435 13I445 12I305 12I335 12I356	Geetha Kousik S Kiruthikadevi R Vishnu Priya K. S. Anitha K Preethiga T Vignesh V	3.25
31.	Fiorana, Bangalore	2	12I331 12I347	NevedhaPriyadharshini Sriram K	6.5
32.	Payoda, Coimbatore	1	12I359	Vivek R Modi	4.6
33.	Qualcomm, Bangalore	2	12I301 12I337	Abinaya S Ragul T	13.5
34.	Incture, Bangalore	1	12I317	Harish M	4.25
35.	Sapient Nitro, Bangalore	1	12I308	Arunprasath M	4.5
36.	Ford, Bangalore	1	12I357	Vigneshwaran C	5.5
37.	Polaris, Bangalore	1	13I470	Tamilarasi S	3.5
38.	IVTL, Bangalore	7	12I302 12I307 12I312 12I313 12I338 12I340 12I352	Abitha S Arthi P B Deepika S Dharshana S Sajithra C Saranya Pa Suruthi R M	6.5

4.7.2. PG Placement

4.7.2.1. M.Tech-Information Technology

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Infosys, Mysore	2	14MA03	Esther Princy I	3.4
			14MA35	Subha Shree R	3.4
2	Tata Consultancy Services, Chennai	1	14MA07	Sasidharan R	3.5
3	CTS, Coimbatore	1	14MA31	Abhinaya M	3.45
4	McAfee. Part of Intel, Bangalore Security	1	14MA32	Anu Priya U	9.5

4.7.2.2.ME-Biometrics and cyber security

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Tata Consultancy Services, Chennai	4	14PB02 14PB05 14PB06 14PB08	D. Gurusamy M.N. Manothini B. Nithin K. ShanmugaPriya	3.5
2	CTS, Chennai	2	14PB03 14PB09	K.V. Hari Krishnan R. Soorya	3.45
3	Infosys, Mysore	1	14PB04	M. Iswarya	3.5
4	IBM, Chennai	1	14PB31	S. Kaaviya	3.25

4.8. Industrial training and project

4.8.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	UST Global, Bengaluru	55	05.09.2015	Software process
2	SAP Labs, Bengaluru	55	06.09.2015	SAP
3	Tata Consultancy Services, Hyderabad	45	04.01.2016	Software Engineering
4	Zify, Hyderabad	45	05.01.2016	Process management
5	Aavin Union Ltd., Ooty	43	30.01.2016	Automation
6	Kodaispices chocolate factory, Kodaikanal	52	06.02.2016	Automation
7	Infosys, Mysore	45	27.02.2016	Software testing

4.8.2. Project work / Internship

S.No.	Name of company	No. of students & course	Period	Area of work
1.	Juniper Networks, Bangalore	3 (UG)	01.12.2015-30.04.2016	JDI Automation, Sanity test automation for csrx, Enhancement of unit test framework
2.	Wipro, Bangalore	3(UG)	01.12.2015-30.04.2016	Multiprocessor Scheduling in NSPSO algorithm, ECG Beat Classification using Hybrid Technique
3.	Novell, Bangalore	4(UG)	01.12.2015-30.04.2016	Offline converter for OES from AFP to CIFS, Adding analytics to Catalog Administrator
4.	Oracle Finance, Bangalore	2(UG)	01.12.2015-30.04.2016	Automating the infusion Pump
5.	Infibeam, Bangalore	1(UG)	01.12.2015-30.04.2016	Duty Knocks
6.	Bridge i2i, Bangalore	1(UG)	01.12.2015-30.04.2016	Increasing the sales effectiveness of a B2B client
7.	Musigma, Bangalore	2(UG)	01.12.2015-30.04.2016	Regional Price View Dashboard, Basic Processing and Classification of Images.
8.	Netapp, Bangalore	2(UG)	01.12.2015-30.04.2016	Volume Trending Report, System Performance Modeler

S.No.	Name of company	No. of students & course	Period	Area of work
9.	Best app, Bangalore	1(UG)	01.12.2015-30.04.2016	Advance payments against PO and HR time management
10.	OATS systems, Bangalore	2(UG)	01.12.2015-30.04.2016	OAT Mobile SDK
11.	Thorough goods, Bangalore	1(UG)	01.12.2015-30.04.2016	End to End BI- Defining and Delivering Solutions.
12.	Cisco, Bangalore	1(UG)	01.12.2015-30.04.2016	ECG Beat Classification using Hybrid Technique,
13.	Fiorana, Bangalore	2(UG)	01.12.2015-30.04.2016	Enhancements to monitor Distributed Fiorano servers, Compression and decompression component for Fiorano SOA
14.	Mobicip, Bangalore	1(UG)	01.12.2015-30.04.2016	Automation of TRUPE website and its functional testing
15.	Myntra, Bangalore	2(UG)	01.12.2015-30.04.2016	Building and Deployment of Deep Learning Models
16.	Intel, Bangalore	1(UG)	01.12.2015-30.04.2016	McAfee Small Business Security
17.	Paypal, Bangalore	2(UG)	01.12.2015-30.04.2016	PEGA Stage Manager for Compass Gold, Customer credibility service
18.	Multicoreware, Bangalore	1(UG)	01.12.2015-30.04.2016	Implementation of symmetric gauss-seidel using OpenCL
19.	Zoho, Bangalore	1(UG)	01.12.2015-30.04.2016	Service desk plus user survey customization
21.	Temenos, Bangalore	1(UG)	01.12.2015-30.04.2016	Intramural skein for wealth manager
22.	Hospira, Bangalore	2(UG)	01.12.2015-30.04.2016	Power Search using Full Text Search,
23.	Oracle systems, Hyderabad	2(UG)	01.12.2015-30.04.2016	Usability Enhancement of Primavera P6 Team Member, Power Search using Full Text Search
24.	P.T.Kewalram, Indonesia	1(UG)	16.12.2015-16.05.2016	Privacy preservation in wireless network
25.	BrainWave Consulting, Pune	1(UG)	14.12.2015-10.04.2016	Analysis of plant and equipment maintenance
26.	Robert Bosch, Coimbatore	4(UG)	01.12.2015-30.04.2016	Plugin tool for Tracking usage of licensed software, Safe HMI for warning and information with display content supervision, HMI Performance Improvement in Volvo's XC90 Instrument Cluster
27.	Exterro, Coimbatore	1(UG)	01.12.2015-30.04.2016	Client release management
28.	PSGSTEP, Coimbatore	1(UG)	01.12.2015-30.04.2016	Social Media Dashboard
29.	A2B2, Coimbatore	1(UG)	01.12.2015-30.04.2016	Application involving generation of QR Code
30.	Ugam Solutions, Coimbatore	2(UG)	01.12.2015-30.04.2016	Attribute Extraction

S.No.	Name of company	No. of students & course	Period	Area of work
31.	LakshyaLabs, Coimbatore	5 (PG)	01.12.2015-30.04.2016	Vulnerability Assessment / Penetration Testing
32.	Astral Consulting Pvt. Ltd. Coimbatore	3 (PG)	01.12.2015-30.04.2016	ISO/ISMS Consulting /Auditing
33.	Delving Research and Development Pvt. Ltd, Coimbatore	2 (PG)	01.12.2015-30.04.2016	ERP Solutions, Production Scheduling
34.	NetApp , Bangalore	1 (PG)	01.12.2015-30.04.2016	Software Development
35.	PurpleProInfotech, Bangalore	3 (PG)	01.12.2015-30.04.2016	Mobile Ad hoc Networks, Wireless Networks, Data Mining
38.	McAfee. Part of Intel Security, Bangalore	1 (PG)	01.12.2015-30.04.2016	Web Development
40.	Infosys, Mysore	1 (PG)	01.12.2015-30.04.2016	Image processing
41.	Hospira Healthcare India Private Limited, Chennai	1 (PG)	01.12.2015-30.04.2016	Embedded Systems
43.	Thick Teknologies, Coimbatore	1 (PG)	01.12.2015-30.04.2016	Embedded Systems

4.9. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG
2003	112	-	2008	71	18	2013	123	30
2004	143	-	2009	60	17	2014	134	32
2005	92	-	2010	65	18	2015	140	33
2006	99	-	2011	116	18	2016	136	22
2007	71	-	2012	113	34			

4.10 PSG Tech students pursuing higher studies

S.No	Name of the Student	Course & Branch	University / College
1	Herald Nithesh	MS Enterprise Business Analytics	National University of Singapore, Singapore
2	Vishnupriya S	MSc. International Business	University of Leeds, UK
3	Sreepradhana T	MS Computer Science	Stonybrook University, New York
4	Nivetha S	MS Computer Science	University of Illinois, Chicago
5	Madhusudhana	MBA	Christ University, Bangalore
6	Praveen Chander S	MS Computer Science	University of Southern California
7	Sathish J	MBA	IIM Indore
8	Rahavi J	MBA, Information Systems	PSG Institute of Advanced Studies
9	Akshaya A	MBA, Information Systems	PSG Institute of Advanced Studies
10	NandiniC	M.Tech IT	Anna University, Guindy campus

S.No	Name of the Student	Course & Branch	University / College
11	ThaaraShanmathi	MA Public administration	University of Madras
12	Sowrabbi L	MS Information Technology and Web Science	Rensselaer Polytechnic Institute, New York

5. SUMMARY

S. No.	Activity	No.	
1.	Workshops conducted	07	
2.	Training programmes conducted	08	
3.	Sponsored research projects completed till date	04	
4.	Scholars pursuing doctoral research	24	
5.	Papers published in international journals	41	
6.	Papers published in national journals	02	
7.	Papers presented in international conferences	03	
8.	Papers presented in national conferences	06	
9.	Awards won by students	109	
10.	No. of students passed out during 2015-16	UG	136
		PG	22
11.	No. of students passed out till date	UG	1475
		PG	222

DEPARTMENT OF TEXTILE TECHNOLOGY

ABOUT THE DEPARTMENT

The Department of Textile Technology educates undergraduate and graduate students for careers in the fiber, textile, apparel and retail industry. The mission of the department is accomplished by offering Bachelor of Textile Technology (full-time & part-time), Master of Textile Technology (full-time & part-time), and Doctoral programme (PhD). The department is one of the oldest departments started in the year 1965. National Board of accreditation of AICTE has accredited B.Tech and M.Tech Textile Technology Programmes in 1997, and accredited in 2005 and in 2011 consecutively for 5 years.

These programs are designed to provide the student with a thorough background in fundamental concepts of scientific, technological, and management principles, and ability to define and solve challenging technological and managerial problems. An essential component of the department's activity is the development of new knowledge through research and the subsequent transfer of this knowledge to both the textile complex and society.

All the laboratories in the department are approved for carrying out research leading to Ph.D. Degree/M.S (by research) (Full time and Part time) by Anna University Chennai. The Textile Institute, UK has accredited B.Tech Textile Technology Programme. The department is also offering full time Ph.D and M.Tech programmes under quality improvement programme (QIP) of AICTE, for the faculty members of various engineering colleges and engineers working in government organizations in the country. The department has collaborations with Hof University, Germany and regularly sends students through exchange programs and summer term courses. One of the significant achievements of the department is that it has been sanctioned with Centre of Excellence(COE) on Industrial Textiles and Home Textiles from Ministry of Textiles to the tune of 28.5 crores.

The department library has about 533 Indian and International books for reference. So far 54 PhDs have been completed and 27 are in progress in the department. The proximity of a large number of textile industries in and around Coimbatore ensures mutual growth of the department and industry. The department is well known for its extensive extension activities, in several key sectors of Textile Technology including industrial textiles, nonwovens, hosiery, silk and non-traditional areas like jute based fabrics. There are several sponsored projects currently being undertaken in the department. The major facilities in the department include Dry Jet Wet Spinning Machine, Miniature machines as well large scale production lines for the entire yarn manufacturing process, Nuovo Pignone Flexible Rapier loom with Stauble Electronic Dobby, Grosse Electronic Jacquard Air jet loom, Ruti-C high speeds automatic loom, Braiding machine, Sulzer Ruti Flexible Rapier Loom, Dilo - Needle punching machine line, Resin Transfer moulding machine for the fabric manufacturing, Entire range of testing instruments to test fibre, yarn, fabric and various industrial textile products. To mention few sophisticated instruments Zwick – Universal Tensile Tester 10kN and 100kN, Contact Angle Tester, Kawabata Fabric Handle Evaluation system, Air Permeability Tester, Thermal Conductivity Tester, DSC (Differential Scanning Calorimetry), Heat flow meter, Capillary Flow Porometer, Spectrophotometer with Computer Colour Matching system. The processing and finishing equipments are Mini RF dryer, Hydrostatic Head Tester, Lab Model 5 Bowel Calendering Machine, Lab Model Endless Belt Cloth Santorizing Machine, Soft Flow Dyeing machine for Fabric, Rotary Printing Machine, Microprocessor Controlled Padding Mangle, Distillation Unit, Draw Press with Fleece Table Cutter, Laboratory Pad Dry Machine, Orbital Shaker, Digital pH & Temperature Meter, Digital Colorimeter etc. There are eight technical staff's to ensure proper functioning of the laboratory.

Vision of the Department

To be a world leader in textile education, research, technology development, and provide service to the entire textile value chain.

Mission of the Department

Through excellence in fundamental and interdisciplinary research and innovative educational practices moulding the textile graduates as "Complete Professionals", enabling them to face managerial demands of complex and diverse textile industry.

A brief on research activities

Fostering Research and Development and evolving innovative applications of technology have been part of the main activities of Department of Textile Technology. Research activities are carried out in the following ways:

- * Research work as part of Post Graduate and Doctoral Dissertation
- * Basic/Applied Research work funded by Government Agencies
- * Joint Industrial Research funded by Government Agencies and Textile Industry
- * Research Work undertaken through the Centre of Excellence for Industrial Textiles

The department of Textile Technology along with Department of Automobile Engineering is sanctioned with COE in Industrial Textiles by Ministry of Textiles under Technology Mission on Technical Textiles (TMTT) scheme with Rs.24.5 crores in 2011. The Ministry has additionally sanctioned Rs.2.85 crores for setting up Focus Incubation Centre in 2015-2016. PSGTECHS COE INDUTECH, Neelambur was formally inaugurated on 21st January 2016 by Shri.Santosh Kumar Gangwar, Honourable Minister of State (IC), in the presence of Dr.Kavita Gupta, IAS, Textile Commissioner, and Smt.Anu Garg, IAS, Joint Secretary, Ministry of Textiles, Government of India.The COE's research areas include Filtration, Thermal and Sound Isolation products. Also the department has research projects sanctioned from Ministry of Textiles, AICTE, AICTE –CAYT, DST-SERB, DBT and UGC.

Major areas of research

- Industrial textiles
- Acoustic Textile Fibrous Matts, Thermal Insulation products
- Natural fibre nonwovens for various technical applications
- Anti-microbial finish for textiles using herbals
- Microencapsulation technique
- Dimensional stability of knitted fabrics
- Colour measurement of textiles
- Nano finishing of fabrics
- Electrospinning for nano fibre production
- Development of surgical sutures
- Healthcare and hygiene textiles
- Plasma processing of textiles
- Wearable and smart textiles / MEMS in Textiles
- Development of photo fabrics and multi layered textiles duotone
- Electromagnetic shielding using textile materials
- Production of kapok non woven fabrics
- Composites development for various technical applications
- Bioprocessing of fabrics
- Effluent Treatment

A brief on consultancy and testing activities

In the Department of Textile Technology the following testing and consultancy activities are carried out for various products such as :

- Fibres, Yarns and Fabrics for Apparel
- Filters
- Sound and Thermal Isolation pads
- Air filters
- Automotive felts
- Effluent Treatment
- Interlinings
- Mattress felts
- Blankets
- Industrial wipes
- Waddings for upholstery and automotive

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.G.Thilagavathi Professor and Head	thi@txt.psgtech.ac.in	1995	Spinning, Textile testing, Clothing science, Technical textile
2	Dr.N.Anbumani Associate Professor	nam@txt.psgtech.ac.in	1988	Spinning, Knitting technology, Man-made textile technology
3	Prof.R.P.Sundaram M.Tech Associate Professor	rps@txt.psgtech.ac.in	1987	Fibre physics, Fabric manufacturing technology, Fabric structure and CAD
4	Dr.R.Murugan Associate Professor	rmn@txt.psgtech.ac.in	1999	Fabric manufacture, Textile mechanics, Statistics and quality control in Textile Industry
5	Dr.M.Senthilkumar Associate Professor	mks@txt.psgtech.ac.in	2004	Textile chemical processing, Man made fibres production, Colour science and colour matching
6	Dr.S.Periyasamy Associate Professor	sps@txt.psgtech.ac.in	2012	Textile chemical processing, Fibre science, Microencapsulation, Computer color matching
7	Dr.S.Viju Associate Professor	svn@fas.psgtech.ac.in	2008	Fibre science and technology , Medical textiles, Clothing comfort
8	Dr.P.Senthilkumar Assistant Professor (Sr.Gr)	psk@txt.psgtech.ac.in	1999	Clothing comfort, Clothing science, Textile and apparel product engineering
9	Dr.J.C.Sakthivel Assistant Professor	jcs@txt.psgtech.ac.in	2005	Yarn manufacture, Nonwovens, Technical textiles

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
10	Dr.P.Ganesan Assistant Professor (Sr.Gr)	pgn@txt.psgtech.ac.in	2009	Textile testing, Textile chemical processing, Textile fibres
11	Mr.S.Kumaravel M.Tech, MBA Assistant Professor (Sr.Gr)	skv@txt.psgtech.ac.in	2009	Fabric manufacture, Industry Management, Quality control
12	Dr.T.Karthik Assistant Professor (Sr.Gr)	tkk@txt.psgtech.ac.in	2009	Yarn manufacture technology, Application of statistics in textiles, Garment manufacturing technology
13	Mrs.K.J.Vishnu Vardhini M.Tech, MBA Assistant Professor (Sr.Gr)	kjv@txt.psgtech.ac.in	<u>2010</u>	Textile composites, Apparel technology, Quality assessment in textiles
14	Mr.G.Maheswaran M.Tech Assistant Professor	mah@txt.psgtech.ac.in	2012	Yarn manufacturing technology , Fabric manufacturing technology, Garment manufacturing technology
15	Dr.N.Muthukumar Assistant Professor	nmk@txt.psgtech.ac.in	2013	Textile Testing, Apparel Quality Evaluation Electro active Textiles
16	Dr.H.Ram Mohan Assistant Professor (Sl.Gr)	hrm@txt.psgtech.ac.in	2013	Fiber science, Yarn manufacture, Fabric manufacture, Nonwovens and Technical textiles

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mr.S.Kumaravel	PhD	2007, Ongoing
2	Mrs.K.J.Vishnu Vardhini	PhD	2011, Ongoing
3	Mr.N.Muthukumar	PhD	2011, Completed

2.2. Conference / Workshop/Training program conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.G.Thilagavathi Dr.H.Rammohan	Training Program on "Spinning Fitters"	-	24.06.2015-27.06.2015
2	Dr.G.Thilagavathi	Training Program on "Introduction to Technical textiles and COE capabilities"	Department of Automobile Engineering, PSG CT, Coimbatore	09.06.2015
3		Training Program on "Tour to COE's Testing & Incubation capabilities"		25.06.2015

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
4		Training Program on "Introduction to COE INDUTECH and Technical textiles"		26.06.2015
5		Training Program on "Focus on Needle punching Technology, products and its application areas"		27.06.2015
6		Training Program on "A Glimpse of Technical textiles and COE Indutech capabilities"		27.06.2015
7		Training Program on "A glimpse of Technical textiles and COE Indutech capabilities"		01.07.2015
8		One day Training Program on "A glimpse of Technical textiles and COE Indutech capabilities"		03.07.2015
9		Training Program on "A glimpse of Technical textiles and COE Indutech capabilities"		07.07.2015
10		Training Program on "Unleashing Thoughts on Textiles"		10.07.2015
11		One day Training Program on "Awareness workshop for Diploma Students on Technical Textiles"		24.07.2015
12		Training Program on "Physical and Flame Testing methods used for Garments Industry"		25.07.2015
13		Training Program on "Introduction to Technical textiles and COE Indutech capabilities"		27.07.2015
14		Training Program on "Introduction to Technical textiles and COE Indutech capabilities"		01.08.2015
15		Training Program on "Trends in Textiles and how to Adapt"		07.08.2015
16		Training Program on "Awareness program on Technical Textiles"		14.08.2015

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
17		Training Program on "Certificate course on Advanced Characterization Techniques"		06.08.2015
18		Training Program on "Recent Trends in Technical Textiles"		10.08.2015
19		Training Program on "Material Characterization Techniques on X - Ray Diffraction"		26.09.2015
20	Dr.G.Thilagavathi Dr.J.C.Sakthivel	Exclusive Workshop on "Fibre to Fabric Production"	Arvind Life style Brands Ltd, Bangalore	24.07.2015- 25.07.2015
21	Dr.G.Thilagavathi Dr.J.C.Sakthivel	Workshop on "Fibre to Fabric Production"	Sardar Vallabhbhai Patel International School of Textile & Management, Coimbatore	14.09.2015- 15.09.2015
22	Dr.G.Thilagavathi Dr.T.Senthilram Mrs.K.J.Vishnu Vardhini Mr.N.Muthukumar	One day International Seminar on "Trends in Global Textile Testing"	SDL Atlas, UK, Premier Colour Scan and Textile Committee, Karur	23.09.2015
23	Dr.G.Thilagavathi	Training program on "Spinning Mill Technicians"	-	14.10.2015- 17.10.2015
24	Dr.H.Rammohan	Training program on "Spinning Mill Supervisors"	-	28.10.2015- 31.10.2015
25	Dr.G.Thilagavathi Dr.T.Senthilram	National Seminar-cum-Workshop on "Business Opportunities and Products Manufacturing Using Coir Needle Felt"	Textile Commissioner, Ministry of Textiles	31.10.2015
26	Dr.G.Thilagavathi Dr.H.Rammohan	Training program on "Spinning Mill Technicians"	-	28.12.2015- 31.12.2015
27	Dr.G.Thilagavathi	Certificate course on "Advanced Materials Characterization"	Department of Automobile Engineering, PSG CT, Coimbatore	26.02.2016- 27.02.2016
28	Dr.G.Thilagavathi Dr.R.Murugan Dr.P.Ganesan Mrs.K.J.Vishni Vardhini Dr.H.Rammohan	National Conference on "Innovations in Textiles– Processes and Products"	-	09.04.2016

2.3. Conference / Workshop/Training program attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr.G.Thilagavathi	National Higher Education Conclave	CIT, Coimbatore	18.11.2015-19.11.2015
		Strategy for Higher Education	PSG Center for Academic Research and Excellence, Coimbatore	30.01.2016
2	Dr.R.Murugan	Short Term Course on “Soft Computing and Applications”	CIT, Coimbatore	15.02.2016-21.02.2016
		Implementation of 5S	PSGCT, Coimbatore	20.04.2016-26.04.2016
3	Dr.J.C.Sakthivel	TEQIP II Sponsored Course on ‘Foundation Skills in Integrated Product Development’(FSIPD) conducted at PSGCT in association with Anna University	PSGCT, Coimbatore	23.11.2015-27.11.2015
		Symposium on Teaching Learning in Higher technical education conducted by IIT, Madras	IIT, Madras	22.01.2016-23.01.2016
4	Dr.P.Ganesan Dr.T.Karthik	Face to Face Workshop on Technical communication conducted by IIT, Bombay	PSGCT, Coimbatore	Nov-Dec 2015
5	Mr.S.Kumaravel Dr.M.R.SriKrishnan	Warp Knitting Basics	Karl Mayer Academy India, Surat	25.05.2015-29.05.2015
6	Mrs.K.J.Vishnu Vardhini	TEQIP II Sponsored Course on ‘Foundation Skills in Integrated Product Development’(FSIPD) conducted at PSGCT in association with Anna University	PSGCT, Coimbatore	19.01.2016 23.01.2016
7	Mrs.K.J.Vishnu Vardhini Dr.P.Ganesan	TEQIP Sponsored Short Term Course on “Textile Structures and Structural Composites”	IIT, Delhi	15.02.2016-18.02.2016
8	Mr.G.Maheswaran	One day Technical Seminar titled: “Warp Knitting: The Technology for Synthetic Fabric Innovation”	Apparel Export Promotion Council – Knitwear Technology Mission, Tirupur	16.03.2016
		TEQIP Phase –II Sponsored Programme on “Train - The Trainers Programme” for the Anna University – NASSCOM Foundation Skills in Integrated Product Development (FSIPD)	PSGCT,Coimbatore	26.03.2016-30.03.2016

S.No.	Name of faculty	Programme	Organizer	Period
9	Dr.N.Muthukumar Dr.T.Karthik	TEQIP Sponsored Short Term Course on "Product and Process Optimization Using Designed Experiment"	IIT, Delhi	18.03.2016- 20.03.2016
10	Dr.N.Muthukumar	International Conference on Advances in Functional, Smart and Innovative Textiles AFSIT 2015	PSG Institute of Advanced Studies, Coimbatore	10.12.2015- 12.12.2015
11	Dr.P.Ganesan	One day workshop on "Google Moodle"	PSG IM, CBE	22.04.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr.G.Thilagavathi	Fiber to Finished Fabrics: Theory and Practical"	Textile Product Engineering	PSG CT	24.07.2015- 25.07.2015
2		International Seminar on "Trends in Global Textile Testing"	Technical Textiles	SDL Atlas, UK, Premier Colour Scan and Textile Committee, Karur and PSGCT	23.09.2015
3		International Seminar on "Growth Potentials of Industrial Textiles	Development of Needle Punched Nonwoven Fabrics from Polyester Fibers for Diesel Filtration Applications	Huntsman International Pvt Ltd, Mumbai	23.11.2015

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr.G.Thilagavathi	Board of Studies Member	Anna University, Chennai, and Kumaraguru College of Technology, Coimbatore
		Expert Committee Member	Kumaraguru College of Technology, Coimbatore
2	Dr.R.Murugan	Reviewer	Journal of Industrial Textiles, Indian Journal of Fibre and Textiles Research
		Board of Studies Member	Board of Studies Member
		NPTEL Course Content Development	IIT Madras, Chennai
3	Dr.M.Senthil kumar	Reviewer	Journal of Industrial Textiles, Journal of Textile Institute
		Board of Studies Member	Anna University, Chennai, and Kumaraguru College of Technology, Coimbatore
		Expert Member	Directorate of Technical Education, Chennai

S.No.	Name of faculty	Activity / Role	Organization
		Staff Selection Committee Member	South Indian Textile Research Association, Coimbatore
4	Dr.S.Periyasamy	Board of Studies Member	Thiagarajar Polytechnic College, Salem and Sona College of Technology, Salem
5	Dr.S.Viju	Editorial Committee Member	PSG Tech Journals National
		Reviewer	Journal of Industrial Textiles
5	Dr.P.Senthilkumar	NPTEL Course Content Development	IIT Madras, Chennai
		Expert Member	Directorate of Technical Education, Chennai
		Editorial Board Member	The Textile Association (India) newsletter, Mumbai
		Board of Studies Member	Alagappa University, Karaikudi
		Managing Committee Member	The Textile Association (India) South India Unit, Mumbai
		Member of Board of Scrutinizers	Anna university, Chennai
6	Dr.J.C.Sakthivel	Academic Committee Member	Sardar Vallabhai Patel Institute for Textile and Management, Coimbatore
7	Dr.P.Ganesan	Reviewer	Journal of Industrial Textiles, Indian Journal of Textile and Fiber Research, Coloration technology, Dyes & Pigments
8	Dr.H.Ram Mohan	Member	Institute of Engineer, Local Center, Coimbatore

2.6. Award won by faculty

S.No.	Name of faculty	Nature of award	Awarded by	Date
1	Dr.G.Thilagavathi Dr.S.Viju	Mentor Award for Best Industry Linked Engineering Institute 2015 for Chemical & Allied Engineering Institute	AICTE and CII	02.12.2015
2	Dr.G.Thilagavathi	Dr.R.Sundaramoorthy Award for the Outstanding Academician	PSG CT, Coimbatore	19.03.2016
3	Dr.T.Karthik	IEI Young Engineers Award	The Institution of Engineers (India)	26.02.2016

2.7. Books published

S.No.	Name of the Author	Details of the book
1	Dr.G.Thilagavathi Dr.T.Karthik	Process Control and Yarn Quality in Spinning, Wood head publishing limited, UK, June, 2015, ISBN: 9789380308357. Price:Rs.410.
2	Dr.G.Thilagavathi Dr.S.Viju	One Chapter contributed "Silk as a Suture Material" in the book Advances in Silk Science and Technology, Wood head publishing limited, UK, 2015, ISBN: 978-1-78242-311-9. No of pages: 298 Price : Rs.16,716

S.No.	Name of the Author	Details of the book
3	Dr.T.Karthik Dr.J.C.Sakthivel	Yarn Manufacture I – Application handbook and Laboratory manual, Astral International India, January 2016, ISBN 978-93-5124-724-1, No. of Pages: 135, Price: Rs. 897
4	Dr.T.Karthik Dr.J.C.Sakthivel	Yarn Manufacture II – Application handbook and Laboratory manual, Astral International India, January 2016, ISBN 978-93-5124-724-2, No. of Pages:130, Price: Rs.897
5	Dr.T.Karthik Mr.D.Gopalakrishnan	Home Textiles, Astral International India, September 2015 ISBN 978-93-5124-707-4, No. of Pages: 141, Price: Rs.895.
6	Mr.D.Gopalakrishnan Dr.T.Karthik	Basics of Textile Chemical Processing, Astral International India, September 2015, ISBN 978-93-5124-702-9, No. of Pages: 107, Price:Rs.695.
7	Dr.T.Karthik Mr.R.Rathinamoorthy Dr.P.Ganesan	One Chapter contributed “Sustainable luxury natural fibres – Production, properties & prospects” Springer, August 2015 ISBN 978-981-287-632-4, No. of Pages: 211, Price: 103.99 Euro.
8	Dr.T.Karthik Dr.R.Rathinamoorthy Dr.P.Ganesan	One Chapter contributed “Recycling and reuse of textile effluent sludge” Springer, August 2015, ISBN 978-981-287-642-3, Page No. 282, Price: 120 Euro.
9	Mr.R.Surjit Dr.R.Rathinamoorthy Mrs.K.J.Vishnu Vardhini	ERP for Textiles and apparel Industry, Woodhead Publishing India Limited, India, Feb 2016, ISBN: 9789385059025, No. of Pages: 286, Price: Rs.2695.

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Department Office	Konica Minolta Bizhub 215 Duplex Print/Scan/Copy Machine	0.56
2	Textile Testing Lab	Fabric Thickness Tester (Digital)	0.30
3		Fabric Stiffness Tester	0.22
4		Weighing Balance	0.30
5		Martindale Abrasion Tester	1.59
6		Crease Recovery Tester	0.34
7		Electronic – Yarn Twist Tester	0.46
8		Textile Chemical Processing Lab	Water Bath
9	Textile Knitting Laboratory	Sweater Knitting Machine	0.33

3.2. Development of new laboratories

S.No.	Laboratory name	Date of inauguration	Major equipment details	Cost in INR (lakhs)
1	Centre of Excellence for Industrial / Home Textiles (PSGTECHS COE INDUTECH)	21.01.2016	Already updated	-

3.3. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1	Centre for Excellence on Industrial Textiles	Dr.G.Thilagavathi	Ministry of Textiles, New Delhi	2010, Ongoing	5 years	2450.00
2	Development of Antimicrobial Suture material using PLLA fibres spun through Dry-jet-wet spinning	Dr.G.Thilagavathi Dr.S.Viju	DST-SERB Division, New Delhi	2012, Completed	3 years	43.69
3	Development of Durable Antimicrobial Face Mask Using Natural Fungal Extract for Health care Applications	Dr.G.Thilagavathi Dr.M.Parthiban	AICTE, New Delhi	2013, Completed	3 years	11.50
4	Development of Active Sportswear using Bi-layer Knitted Fabrics	Dr.P.Senthil kumar Mr.S.Kumaravel	AICTE, New Delhi	2013, Completed	3 years	22.70
5	Vetiver Based Treatment System for Textile Industry Wastewater	Dr.P.Ganesan	Department of Bio technology (DBT), New Delhi	2014, Ongoing	3 years	16.02
6	Development of Antimicrobial Silk Suture Materials	Dr.S.Viju	AICTE – CAYT, New Delhi	2015, Ongoing	3 years	5.10
7	Development of Oil Sorption and Sound Absorption Pad using Natural Fibre Based Non wovens Textiles - A Novel approach to sustainability	Dr.G.Thilagavathi Dr.S.Viju	University Grants Commission Government of India, New Delhi	2015, Ongoing	3 Years	15.32
8	Focus Incubation Centre	Dr.G.Thilagavathi Dr.S.Neela krishnan	Ministry of Textiles, New Delhi	2015, Ongoing	6 months	285.00
9	Development of Jute/Jute Blended Fibrous Mat for Effluent Filtration Applications	Dr.G.Thilagavathi Dr.S.Neela krishnan	Ministry of Textiles, New Delhi	2016, Ongoing	1 year	19.96

3.3.1 Sponsored research activities – Abstract

Centre for Excellence on Industrial Textiles

The department of Textile Technology and Automobile Engineering of PSG College of technology are sanctioned with CoE on Industrial textiles by Ministry of textiles under Technology Mission on Technical Textiles (TMTT) scheme with Rs.24.5 crores. The objectives of PSGs COE INDUTECH are depicted in the following figure.



The mission of PSGTECHS COE INDUTECH is to accelerate new venture development in the related areas of industrial textiles technology in conjunction with technological innovation within PSG Tech environment and the PSG's extended community. This COE has built an infrastructure specifically for industrial textiles to support high quality research and industrial collaboration. The PSG management contributed 15 crores for creating infrastructure development. A new building of 60000 square feet was constructed to accommodate manufacturing / testing facilities. This provides a platform for the industry and the new entrepreneurs to develop new products, standards for the new products, upgrade the existing products and utilize pilot scale facilities for rapid sample / prototype developments. New products can also be tested and evaluated in the state of art testing and evaluation laboratory. The COE transfers knowledge to industry through workshops, seminars and conferences. The COE offers consultancy to various entrepreneurs for promoting and setting up Industrial Textile Units for producing products such as Filters, Sound and Thermal Isolation pads, Air filters, Automotive felts, Insulation materials for thermal and noise insulation, Interlinings, Mattress felts, Blankets, Industrial wipes, Waddings for upholstery and automotive.

Development of Antimicrobial Suture material using PLLA fibres spun through Dry-jet-wet spinning

Poly (L-lactide) filament spinning has been successfully carried out by using chloroform as solvent and methanol as precipitating medium with the help of dry-jet-wet spinning machine. The produced filaments are drawn at different draw ratios and heat setted with the help of two stage drawing machine. Characterization of Poly (L-lactide) as-spun and drawn filaments has been carried out using machines such as Zwick tensile testing, Scanning electron microscopy (SEM), Fourier transform Infrared spectroscopy (FT-IR) and X-ray diffraction. –

Development of Durable Antimicrobial Face Mask Using Natural Fungal Extract for Healthcare Applications

The fungal pigment is identified and extraction process is done. Further, the extracted fungal pigment is characterized using UV-Visible spectrometer, Chromatography and FTIR spectra. Stability of the extracted fungal pigment and the antibacterial activity of the pigment against different fabrics are analyzed. The results are found to be significant and the extracted fungal pigment is multi-component in nature, stable under different temperatures and exhibited good antimicrobial property.

Development of Active Sportswear using Bi-layer Knitted Fabrics

Bi layer fabrics are used to ensure better clothing comfort in sports and active wears. High moisture transfer properties of these fabrics affect their comfort properties and make them more functional. In this study, the influence of yarn count on thermal and moisture transfer properties of Bi-layer interlock knitted fabrics made of two types of yarns such as cotton and Polypropylene were studied. This special knitted structure was developed with Polypropylene as an inner layer due to its high water transfer ability, light weight and easy care properties and the outer layer in which the cotton yarn was used due to its hydrophilic characteristic and high moisture absorption property.

The yarn counts (combinations of cotton and Polypropylene) namely, 20Ne/120D, 20Ne/240D, 40Ne/120D, 40Ne/240D were selected. The comfort properties selected for testing and analysis were air permeability, thermal conductivity and moisture transmission properties such as moisture vapour transfer, wicking, wetting, water absorbency and drying. The result shows that properties such as thermal conductivity, air permeability and water vapour permeability are mainly influenced by both material type and structural parameters. Wicking ability is influenced to a greater extent by the knitted structure, pore sizes and their size distribution in the fabric. From the T-test, it is concluded that there is no significant differences among the samples for most of the comfort properties. The result of both subjective and objective testing indicates that, the combination 40Ne/120D provides better comfort and can be preferred for sportswear.

Vetiver Based Treatment System for Textile Industry Wastewater

(Principal Investigator in Department of Bio Technology)

Development of Antimicrobial Silk Suture Materials

Surgical site infections are some of the most common nosocomial infections and more than 60% are localized at the incision. Surgical site infections result in patient mortality and high medical costs for society. Hence suture materials are coated with antimicrobial agents to reduce infections. Presently all commercially available antibacterial sutures are based on triclosan coating only. Recently, literature suggests that the triclosan based surgical sutures has significant limitations and complications. Triclosan bioaccumulates in human milk, umbilical cord blood, human fat tissue, and urine, which can negatively alter immune, endocrine and reproductive functions. Therefore, suture material with a different coating material is urgently needed. In this work it is intended to perform the following; To develop silk based sutures with good microbe resistance characteristics; To prepare chitosan microparticles using ionic gelation technique and process optimization, characterization and application onto silk sutures; To develop silk braided sutures with enhanced mechanical, frictional and bending properties.

Development of Oil Sorption and Sound Absorption Pad using Natural Fibre Based Non wovens Textiles - A Novel approach to sustainability

Textile materials are widely being used in the development of various industrial products such as oil sorption pads, sound absorption materials, filters, carpets, geotextiles etc. Most of these industrial textile products are disposable and are usually produced from synthetic fibres such as polypropylene, polyester, nylon, polyurethane etc. The environmental impact of disposable textile

products is becoming a major concern throughout the world in the recent years. Production of synthetic polymers consume fossil fuel resources and disposal of the synthetic textiles adds to landfill sites as they are non-biodegradable and are not easily recycled. The remedy for this problem could be found in the development of substitute products based on biodegradable and ideally from natural and renewable textiles. Hence in this study it is proposed to develop oil sorption pads and sound absorption nonwoven textiles using natural fibres such as nettle, kapok, banana, flax and blends. This has significance also because of the ELV (End Life of Vehicle) norms imposed by western countries, where 95% of materials used inside the car should be recyclable and biodegradable. Hence, the developed natural fibre sound absorption pads can be utilized in the car interiors as sound absorbants. This product would overcome the problems associated with the synthetic textile products as stated above.

Focused Incubation Center

In order to enable and benefit Micro Small and Medium Scale Enterprises (MSME) and institutional buyers to manufacture indigenous technical textile products in the fields of sound insulation, thermal insulation, coir felt composite products and filtration products are set up in an incubation center.

Development of Jute / Jute Blended Fibrous Mat for Effluent Filtration Applications

Prefilters placed before tertiary effluent process namely the reverse osmosis play a significant role in effluent treatment plants. Reverse osmosis is carried out to get pristine pure water from the influent. Turbidity before the tertiary process occurs due to various chemicals such as calcium hydroxide which is used for settling of effluent, chlorine based colour removing agents, sand sediments, dirt and other impurities that are present during primary and secondary treatments. The turbidity of the effluent, if maintained at 1-5 NTU (Nephelometric Turbidity Units) yields better performance in the Reverse osmosis plants. To achieve above turbidity levels various types of prefilters are deployed before the Reverse osmosis process. In this project, it is proposed to develop a prefilter string wound and nonwoven based using jute fiber. The selection of jute fiber will pave way for ease of disposal after its usage. Hence, the major focus of the project is to develop biodegradable prefilter based on jute and to achieve reduction of turbidity of 1-2 NTU.

3.4. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Mr.M.Parthiban	Investigations on coloration and antibacterial finishing of silk and wool fabrics treated with natural fungal extract for healthcare applications	Dr.G.Thilagavathi, Professor & Head, Department of Textile Technology, PSG CT, Coimbatore	2008, Completed
2	Mr.P.Parthasarathi	Development of Tri-Laminate Antiviral Surgical Gown for Liquid Barrier Protection.		2009, Completed
3	Ms.S.Sudha	Moisture diffusion studies on jute knitted vinylester resin composites		2009, In progress
4	Mr.R.Rathina moorthy	Investigations on odour retention characteristics of Textiles		2009, Completed
5	Mr.N.Muthukumar	Experimental investigations on Polyaniline Coated Textile		2011, Completed

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
		Materials for Sensor and Electrode Applications		
6	Mr.C.Praba Karan	Oleophilic characteristics of fibrous nonwoven materials	Dr.G.Thilagavathi, Professor & Head, Department of Textile Technology, PSG CT, Coimbatore	2011, In progress
7	Mr.S.Vishak	Sound Absorption Charactercstic of Non Wovens with Natural Fibers		2014, In progress
8	Mr.G.Selvakumar	Development and evaluation of multilayer nonwoven diesel filter media for automotives		2014, In progress
9	Mr.E.Perumalsamy	Study The Effect Of Molecular Weight and Draw Ratio On Poly L-Lactic Acid Suture Material Tensile & Flexibility Properties		2014, In progress
10	Mr.V.Muthukumar	Development of Environmental friendly acoustic panel		2016, In progress
11	Mr.K.Chandra sekaran	Eco friendly finishing	Dr.N.Anbumani, Asso.Professor, Department of Textile Technology, PSG CT,Coimbatore	2012, In progress
12	Mrs.K.J.Vishnu Vardhini	Banana fibre composites	Dr.R.Murugan, Asso. Professor, Department of Textile Technology, PSG CT, Coimbatore	2011, In progress
13	Mr.R.Surjit	Comfort properties of textile		2011, In progress
14	Mr.A.Sivakumar	Nano multi functional finishes		2011, In progress
15	Mr.J.Thanikai Vimal	Evaluation of Fabric Properties Produced from Different Doubled Yarn		2014, Synopsis submitted
16	Mr.J.Anandha kumar	Dyeing and characterization of dyed materials	Dr.M.Senthilkumar, Asso.Professor, Department of Textile Technology, PSG CT, Coimbatore	2013, In progress
17	Mr.M.Janarthanan	Application of Seaweeds and Their Extracts in Tentile Processing		2013, In progress
18	Mr.Sivakumar.S	Salt Free Dyeing		2013, In progress
19	Mr.P.Thennarasu	Study of Functional Properties of Nano Sio Coated Cotton Textile using Extraction from Bagasse		2014, In progress
20	Mr.R.Chandra sekaran	Mosquito repellent textiles	Dr.S.Periyasamy, Asso.Professor, Department of Textile Technology, PSG CT, Coimbatore	2010, In progress
21	Mr.J.Balaji	Modification of synthetic textiles		2010, In progress
22	Mr.G.Gunasekaran	Comfort properties of special end textiles		2009, In progress
23	Mr.S.Mohanraj	Insect repellent textiles		2010, In progress
24	Mr.S.Sakthivel	Study of bionanoparticles		2010, In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
25	Mrs.G.K.Indu	Acoustic Textiles	Dr.P.Senthilkumar, Assistant Professor(Sr.Gr), Department of Textile Technology, PSG CT,	2009, In progress
26	Mr.T.Bharath	Plasma sterilization		2010, In progress
27	Mr.V.Chandra sekaran	Improved comfort polyester		2010, In progress
28	Mr.B.Sathish Babu	Active sportswear		2010, In progress
29	Mr.E.Sankara kuthalam	Air vortex yarn		2010, Completed
30	Mr.R.Anbalazhagan	Rotor hollow yarn		2010, In progress
31	Mr.S.Senthilnathan	Thermal protective clothing		2011, In progress
32	Ms.T.Suganthi	Fit analysis		2013, In progress

3.4.1 Doctoral research – Abstract

Investigations on Coloration and Antibacterial Finishing of Silk and Wool Fabrics Treated with Natural Fungal Extract for Healthcare Applications

Supervisor

Dr.G.Thilagavathi

Candidate

Mr.M.Parthiban

In this research work, pigment from the fungal species namely Thermomyces is extracted, characterized and applied onto silk, cotton and wool fabrics for imparting color and antibacterial activity. Two kinds of products namely silk suture and woollen socks are also developed and characterised. Color strength, fastness properties and antibacterial activity of silk and wool fabrics are found to be good when compared to the cotton fabric. The optimum concentration of the pigment is observed at 2% on weight of the fabric for both silk and wool fabrics and the optimum conditions for dyeing and antibacterial activity of silk fabrics are 60° C, 30 min at 3 pH and wool fabrics are 30° C, 60 min at 3 pH. The results showed that plasma pretreatment enhances both the wool and silk fabrics color intensity by 5%, wash fastness by 3%, rubbing fastness by 2% and antibacterial activity. The results also showed that the pigment concentration in the selected range has no significant effect on friction, tenacity and knot strength of silk sutures. Antimicrobial test results showed that as the pigment concentration increases the antimicrobial activity also increases against both E. coli and S.aureus bacteria. The results further showed that there is no loss in the tensile and abrasion behavior of pigment treated woollen socks but there is a significant improvement in the antimicrobial property. The pigment treated woollen socks also exhibits excellent perspiration fastness, good rubbing fastness and moderate wash fastness properties.

Development of Tri-Laminate Antiviral Surgical Gown for Liquid Barrier Protection

Supervisor

Dr.G.Thilagavathi

Candidate

Mr.V.Parthasarathi

A foremost problem for healthcare workers is the transmission of pathogens and bacteria from their patients to themselves and the reverse contamination. Bacteria contaminated fabric in hospitals are known to be a major source of infection as any blood contamination could pose a risk of transmission of bacteria and virus. In recent times, the market demand of healthcare textiles has

increased incredibly and the scope of surgical gowns is enormous due to hygiene consciousness. Spun bond polypropylene, polyester and viscose nonwoven fabrics with basis weight of 25 grams per square were sourced. The nonwoven fabrics pore size was characterized to analyze their suitability. Titanium dioxide nano particles were synthesized using Titanium tetra chloride as a precursor. First tri-laminate antiviral surgical gown named as PP 1 was developed with titanium nano finished polypropylene as an outer layer, PTFE film as a middle layer and polyester nonwoven as an inner layer which were bonded together using a fusing machine at a temperature of 210° C with heated roller temperature of 240° C and roller pressure of 120 N/cm². The developed surgical gown pore size was analyzed with capillary porometry. The Polypropylene/PTFE/Viscose tri-laminate antiviral surgical gown named as PP 2 was also developed, combining positive attributes of the skin friendly viscose nonwoven as an inner layer with polypropylene and PTFE.

In addition, Polyester/PTFE/Viscose tri-laminate antiviral surgical gown named as PET 3 was developed by replacing polypropylene with polyester as an outer layer. The PET 3 gown has passed viral penetration analysis and has better moisture vapour permeability when compared to PP 1 and PP 2, though is lower in various mechanical properties. The developed tri-laminate surgical gown was tested and analyzed for the properties such as antibacterial, viral penetration analysis, tensile strength, tearing strength, spray impact penetration, hydrostatic resistance and moisture vapour transmission using standard testing procedures under standard atmospheric conditions. The effect of plasma enhanced fluorocarbon treatment on outer layer of surgical gown has been studied. By considering the comfort characteristic requirements of tri-laminate surgical gown, the PET 3 gown has higher moisture vapour permeability and could be used for healthcare textiles application.

Experimental Investigations on Polyaniline Coated Textile Materials for Sensor and Electrode Applications.

Supervisor

Dr.G.Thilagavathi

Candidate

Mr.N.Muthukumar

At present, wearable sensors in textile garments and accessories are mainly represented by embedded conventional electronic devices, such as conducting metal wires, electronic sensors, integrated circuits, LEDs and batteries. The textile material does not take part or constitute any functionality but is merely a substrate or vehicle. This approach leads to several problems, where lack of comfort, durability and user friendliness is perhaps the most severe ones. So, there is a need to develop textile to perform interms of sensor functionality and wearability. Textile-based sensors have been developed using numerous different technologies, of which conductive coating and embedding of conductive yarns into knitted and woven structures are the most attractive to researchers. Some studies relating to the development of textile based sensors using polypyrrole coating have been published. But literature suggests that among the various classes of conductive polymers, polyaniline is low cost and ease to synthesis and also has good environmental stability. In this work, textile based piezo-resistive strain and pressure sensors and electrodes for EEG measurement have been developed by conductive polymer coating over textile substrate. Polyaniline is used as a conductive polymer and the nylon lycra fabric was used as textile substrate for strain sensor application and polyurethane foam was used as textile substrate for pressure sensor and electrode applications. EMI shielding efficiency of polyaniline coated cotton, polyester and nylon fabrics are also studied.

Investigations on Odour Retention Characteristics of Textiles

Supervisor

Dr.G.Thilagavathi

Candidate

Mr.R.Rathinamoorthy

The present study is designed to evaluate the influence of textiles on the odour retention characteristics. Commercially used textile fabrics made of cotton, viscose, linen, nylon, cotton/polyester (60/40) and 100 % polyester were used for wear trial. Cotton knitted fabrics made of three different thicknesses were selected based on their commercial importance. The effect of

different structures on odour formation was analysed. It was found that the structure with high thickness had the high odour intensity rating and the least value was observed for thinner structure. High-performance liquid chromatography (HPLC) analysis was done to confirm the presence of these components in Terminalia chebula. The in-vitro antibacterial test by agar diffusion test was conducted for finished textile samples and was observed that, the treated textiles material have the potential antibacterial property against wide spectrum of odour causing strains.

The Box and Behnken design was adopted to study the effects of these parameters on the effectiveness of extraction in terms of in-vitro antibacterial activity of treated textile against odour causing bacterial strains. The optimized extraction conditions were taken for the odour retention study. The results revealed that, the odour intensity in all the textile fabrics reduced significantly after terminalia chebula finishing process. The odour reduction in the terminalia chebula finished fabrics was characterized objectively using GC/MS. The GC/MS analysis of terminalia chebula extract finished textile showed comparative reduction in odourous components after wear trial than the untreated. These findings suggest that the active components in the herbal extract acted as antibacterial components and controlled the growth of bacterial species and thus reduced the metabolism of bacterial strains. Hence, the formation in the odour was considerably less in terminalia chebula finished fabric than the unfinished fabric.

Investigation of Influence of Vortex Spinning Parameters on Yarn Properties

Supervisor

Dr.P.Senthilkumar

Candidate

Mr.E.Sankarakuthalam

In this research work, influence of the spinning parameters on the properties of the Polyester/Cotton vortex yarn in coarser and medium counts was investigated. Regression equations for each of the properties of Polyester/Cotton vortex yarn from the spinning parameters were established. Influence of spindle air pressure and its direction on the properties of Polyester/Cotton vortex yarn was investigated. Influence of fibre fineness and delivery speed on the properties of 100% Polyester vortex yarn was investigated and regression equations for its yarn properties were established.

3.5. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
1	Dr.G.Thilagavathi Mr.G.Maheswaran	Akila Textiles, Udumalai Petai	Fibre and Yarn Testing	0.31
2		Harita Polytex, Coimbatore		
3		Sha Sha Spinning Mills, Coimbatore		
4		R.M traders, Coimbatore		
6		K.Sivasubramaniam Spinners, Coimbatore		
7		S.V.Traders, Coimbatore		
8		Prashanth Textiles, Coimbatore		
9		Thivasigamani Spinners, Coimbatore		
10		Sree Radhe Krishna & Co, Coimbatore		
11		Dr.G.Thilagavathi		
12	Dr.R.Murugan	SITRA, Coimbatore	0.11	
13	Dr.G.Thilagavathi Dr.M.Senthilkumar	Mahindra Retail Pvt Ltd, Bangalore	Testing	0.16

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
14	Dr.G.Thilagavathi	Airtronic Gauges and Instruments, Hosur	Testing by PSG TECHS COEINDUTECH	0.021
15		A.V.Systems , Coimbatore		0.017
16		Adil Textiles Private Ltd, Tirupur		0.057
17		Akshaya Industries, Rajapalayam		0.025
18		Alisha Pneumatics Ltd, Coimbatore		0.011
19		Andrew Industries, Andhra Pradesh		0.070
20		APK Engineering Industries, Coimbatore		0.058
21		Arunachal Mill, Coimbatore		0.0069
22		Arunachala Industries, Coimbatore		0.021
23		Ashok Gears, Coimbatore		0.19
24		ATS Inspectorate, Madurai		0.014
25		Balaji Packers, Coimbatore		0.0011
26		Balamurugan Chemicals, Tuticorin		0.015
27		BKS Textiles, Coimbatore		0.011
28		Commendo Lab, Coimbatore		0.023
29		Carborundum Universal Limited, Chennai		5.06
30		Central Leather Institute, Chennai		0.052
31		ELGI Ultra Industries, Coimbatore		0.018
32		Elofic Industries, Haryana		0.051
33		Eminent Textiles Mills Pvt Ltd, Dhalavai Puram		0.35
34		Endremonde Polycoaters, Nasik		0.029
35		Fortune Fine Fabs (P)Ltd, Andra pradesh		0.0684
36		Franstek Belts Private Limited, Goa		0.0228
37		G.D.Textiles, Madurai		0.061
38		GAKK Industries, Coimbatore		0.023
39		GECO Special Machiners, Coimbatore		0.24
40		Gennex Thitech Rubbers, Coimbatore		0.010
41		Global Vision, Chennai		0.017
42		Habasit lakoka Ltd, Coimbatore		0.054
43		Honesty Traders, Coimbatore		0.023
44		Huntsman Pvt Limited, Mumbai		0.12
45		Industrial Mineral Co, Tuticorin		0.05
46		Jayem Automotives Limited, Coimbatore		0.02
47		Jebi Solutions Inc, Coimbatore		0.01
48	KG Mills, Coimbatore	0.02		
49	KKP Linen Pvt Ltd, Nammakal	0.19		

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
50		Kob Medical Textlies Pvt Ltd, Coimbatore		0.048
51		Lakshmi Life Sciences Ltd, Coimbatore		0.15
52		Methra Industries Pvt Ltd, Chennai		0.057
53		Microlab Testing Solutions, Chennai		0.87
54		Midas Safety Products Private Ltd, Coimbatore		0.008
55		Modern Testing Service Ltd, Tirupur		0.41
56		New Era Interior Collection Pvt Ltd, Bangalore		0.045
57		Pricol Ltd, Coimbatore		0.098
58		Ramco Cements Limited, Arrakonam		0.027
59		Ramco India Pvt Ltd - Chennai		0.022
60		Redlands, Kerala		0.022
61		Renault Nissan, Chennai		1.92
62		RND BIO Solution Company, Coimbatore		0.31
63		Robert Bosch Engineering & Business Solutions Ltd, Coimbatore		0.17
64		Roots Industries, Coimbatore		0.48
65		Roots Multiclean Ltd, Coimbatore		0.17
66		Sakthi Knitting, Tirupur		0.10
67		Seine Product Design Pvt Ltd, Bangalore		0.042
68		Simta Manufacturing Company, Coimbatore		0.023
69		SITRA, Coimbatore		0.24
70		Slider Bags – Bangalore		0.023
71		Slivertex Eng Pvt.Ltd, Coimbatore		0.38
72		Sogefi Limited - Bangalore		0.08
73		SRF Limited, Chennai		0.99
74		Sundaram Industries Pvt Ltd, Madurai		0.61
75		Texmo Industries, Coimbatore		0.39
76		United Nanotech, Bangalore		1.33
77		Vantex Limited, Coimbatore		0.021
78		VSSC, Kerala		0.29
79		VXL Systems, Coimbatore		0.041
80		Wales Exports, Pollachi		0.011
81		Shraddha Kale, Mumbai		0.020
Total amount				17.17
82	Dr.G.Thilagavathi	Aadhi Annam Coir Comforts P Ltd, Pollachi	Consultancy by PSG TECHS	1.44

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
83		Avaniko Inc, Udumalpet	COEINDUTECH	0.12
84		Carenow Medicals Pvt. Ltd, Coimbatore		0.06
85		Circot, Mumbai		0.17
86		Coir on Foam Products, Pollachi		0.30
87		Elgi Ultra Industries, Coimbatore		0.06
89		Grasim Industries, Coimbatore		0.21
90		Harish Coconut Products (P) Ltd, Pollachi		0.32
91		Hrithik Spintex, Coimbatore		0.11
92		Midas Safety Products, Coimbatore		0.79
93		Pearl Techno Products, Coimbatore		0.06
94		Rnd Bio, Coimbatore		0.03
95		Sri Kumaran Coirs, Pollachi		0.13
96		Sri Vari Coirs, Pollachi		1.25
97		Sri Kannan Coir Products, Pollachi		0.03
Total amount				5.08

3.6. Library

S. No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	533	686	-	-	5	-
2	GRD Library	5282	1660	687	3	20	NIL

3.7. Board of studies

S.No.	Date	Agenda	External experts
1	10.10.2015	<ul style="list-style-type: none"> Preparation of 2015 regulations for UG Programmes (B.Tech Textile Technology FT & PT) and the respective detailed syllabi. Introduction of new electives for UG/PG and research electives. Introduction of one credit courses for UG/PG. 	<p>1. Dr.A.Peer Mohamed Professor Dept. of Textile Technology Alagappa College of Technology Anna University, Chennai – 600 025</p> <p>2. Dr.R.Alagirusamy Professor Dept. of Textile Technology Indian Institute of Technology Haus Khaz, New Delhi – 110 016</p> <p>3. Dr.V.R.Giridev Assistant Professor (SG) Dept. of Textile Technology Alagappa College of Technology Anna University, Chennai – 600 025.</p>

S.No.	Date	Agenda	External experts
			4.Dr.Prakash Vasudevan Director, SITRA 13/37, Avinashi Road , Coimbatore
2	02.04.2016	<ul style="list-style-type: none"> • Finalization of detailed syllabi for 2015 regulations B.Tech (FT) & B.Tech (PT) Textile Technology • Introduction of new electives • Introduction of one credit courses • Preparation of course manual for 2015 B.Tech Textile Technology with Programme outcome (PO), Course outcome (CO), Course plan mapping and Question paper mapping. 	1. Dr.A.Peer Mohamed Professor Dept. of Textile Technology Alagappa College of Technology Anna University, Chennai – 600 025 2. Dr.R.Alagirusamy Professor Dept. of Textile Technology Indian Institute of Technology Haus Khaz, New Delhi – 110 016. 3. Dr.V.R.Giridev Assistant Professor (SG) Dept. of Textile Technology Alagappa College of Technology Anna University, Chennai – 600 025. 4. Dr.G.Chandramohan Textile Consultant 10, Sitra colony, Peelamedu, Coimbatore 5. Dr.K.Selvaraju Secretary General Southern India Mills Association (SIMA), 41, Race Course, Coimbatore

3.8. Research publications

3.8.1. Papers published in international journals

1. Nirmala Varghese and G.Thilagavathi, "Handle, Fit and Pressure Comfort of Silk/Hybrid Yarn Woven Stretch Fabrics", *Fibers and Polymers*, Vol.17, No.3, pp.484-494, 2016 DOI 10.1007/s12221-016-5561-5.
2. N.Muthukumar and G.Thilagavathi, "Analysis of Piezoresistive behavior of polyaniline –coated nylon lycra fabrics for elbow angle measurement", *The Journal of Textile Institute*, 2016, <http://dx.doi.org/10.1080/00405000.2016.1161696>.
3. R.Santhosh Egappan, G.Thilagavathi and N.Muthukumar, "Fabric based Filters for Filter Press Applications", *Asian Textile Journal*, pp.58-60, January 2016.
4. N.Muthukumar, G.Thilagavathi, and T.Kannaian "Polyaniline coated polyurethane foam for pressure sensor applications", *High Performance Polymers*, pp.368-375, Vol.28 (3), April 2016, Doi: 10.177/0954008315583703.
5. K.Sonika, V.S.Naveen and G.Thilagavathi "Analysis of suitability of elastomeric woven tape for strain sensor application and measurement of elbow angle" *Journal of Industrial Textiles*, ISSN: 1528-0837, pp. 1-17, October 21, 2015, doi: 10.1177/1528083715612234.
6. S.Sudha and G.Thilagavathi, "Effect of alkali treatment on mechanical properties of woven jute composites", *The Journal of Textile Institute*, July 2015, pp.1-11.
7. T.Kathik and R.Murugan, "Spinnability of cotton/milkweed blends on ring, compact and rotor spinning systems", *Indian Journal of Fibre & Textile Research*, Vol.41, pp.26-32, March 2016.
8. A.Sivakumar, R.Murugan, and S.Periyasamy "Evaluation of multifunctional properties of polyester/cotton blend treated with un-modified and modified nano-TiO₂ particles", *Materials Technology: Advanced Performance Materials*, *Taylor & Francis*, 2016.

9. B.Sathish Babu, P.Senthilkumar, and M.Senthilkumar, "Effect of Linear density on moisture management characteristics of cotton/polypropylene double layer knitted fabrics", *Industria Textila*, Vol.66, No.3. pp. 123-130, 2015.
10. P.Senthilkumar, and E.Sankarakuthalam, "Optimization of Spinning Parameters Influencing the Tensile Properties of Polyester/Cotton Vortex Yarn", *Indian Journal of Fibre & Textile Research*, Vol.40, No.3, pp.256-266, Sep 2015.
11. P.Senthilkumar, P.Kandhavadi, and C.Vigneswaran "A Novel approach in Single stage combined bleaching and protease enzyme treatments on wool fabrics", *Fibres and Polymers*, Vol.16, No.2, pp.397-403, 2015.
12. P.Senthilkumar, and T.Karthik, "Effect of Argon Plasma Treatment Variables on Wettability and Antibacterial Properties of Polyester Fabrics", *Journal of The Institution of Engineers (India): Series E Chemical and Textile Engineering*, Vol.97, No.3, pp.19-29, Jan – June 2016.
13. P.Senthilkumar, "Moisture transfer in textile materials", *Melliand International*, pp. 41-42, Feb 2016.
14. P.Senthilkumar, N.Arun, and C.Vigneswaran, "Plasma Sterilisation: New Epoch in medical Textiles", *Journal of Institution of Engineers (India)*, DoI: 10.1007/s40034-014-0056-7, 2015.
15. S.Kumaravel, and A.Venkatachalam, "Development of Nylon/Carbon nanotube multi-layered fabric for protective application", *Journal of the Textile Association*, Vol 6, NO. 4, pp. 229-234, November/December 2015.
16. V.Chandrasekaran, P.Senthilkumar, and M.Senthilkumar "Yarn Sample preparation techniques and yarn diameter measurement for analyzing cut cross sectional view of follow core dref spun yarns", *Journal of Institution of Engineers (India)*, Vol.xiv, No.5, 2015.
17. P.Ganesan, and K.J.Vishnu Vardhini, "Herbal treated microbial resistant fabrics for healthcare textiles", *Indian Journal of Natural Products and Resources*, Vol.6 (3), September 2015, pp.227-230.

3.8.2. Papers published in national journals

1. G.Thilagavathi and N.Muthukumar, "Natural fibrous materials for sound absorption applications", *Asian textile journal*, pp.45-48, 2015.
2. J.C.Sakthivel, N.Anbumani and P.Senthilkumar, "Effect of Different Dimensional Stabilization Methods on the Dimensional Properties of spun viscose single jersey knitted fabrics", *Man Made Textiles in India*, Jan 2016.
3. T.Karthik, and R.Murugan, "Regenerated Biopolymers", *Asian Textile Journal*, Vol.24, No.8, pp.56-60, August 2015.
4. P.Senthilkumar, and R.Murugan, "Energy conservation in Spinning Mills", *Spinning Textiles*, pp.4-8, 2015.
5. P.Senthilkumar, "Durability & Tailorability Characteristics of Structurally modified cotton knitted fabrics", *Knitting Views*, Vol.10, No.4, pp.42-48, July – Aug 2015.
6. T.Suganthi, and P.Senthilkumar, "An Overview of fit and its relationship with clothing", *Apparel Views*, Vol.15, No.5, pp.52-54, 2015.
7. T.Suganthi, and P.Senthilkumar, "3D Evaluation of garment fit", *Apparel Views*, Vol.15, No.5, pp.48-49, 2015.
8. P.Senthilkumar, N.Hemalatha, S.R.Bamini, R.Leelavathi, and D.K.Pavithra "Development of wound dressing using cuttlefish ink treated cotton fabric", *Man Made-Textiles in India*, pp.60-64, Feb 2016.
9. E.Sankarakuthalam and P.Senthilkumar, "Studies on Vortex Yarn Formation and Process Parameters Influencing Yarn Properties in Vortex Spinning", *Spinning Textiles*, pp. 4-8, Nov 2015.
10. P.Senthilkumar, N.Sandhya and R.Saravanakumar "Plasma Treatment of Wool Fibres", *Colourage*, pp. 41-47, Nov 2015.
11. E.Sankarakuthalam and P.Senthilkumar, "Comfort Characteristics of cotton hollow yarn woven fabrics", *Apparel Views*, pp.58-60, June 2015.
12. P.Senthilkumar, "Applications of plasma in textile processing", *Asian Textile Journal*, pp. 63-66, June 2015.
13. P.Senthilkumar, "Self cleaning and antimicrobial properties of nano finished textiles", *Asian Textile Journal*, pp.49-56, 2015.
14. T.Suganthi, and P.Senthilkumar, "Study of thermal comfort characteristics of tri-layer knitted fabrics for sports wear", *Knitting Views*, pp. 52-56, Jan – Feb 2016.
15. P.Senthilkumar, "Selection of textile materials for sportswear Part 1", *Apparel Views*, pp.40-42, Feb 2016.
16. J.C.Sakthivel and P.Senthilkumar, "Dimensional and Comfort Properties of Multi-content Single Jersey Knitted Fabrics", *Knitting Views*, pp. 34-36, Sep – Oct 2015.

17. P.Senthilkumar, S.Gurunathan and N.Sri Sandhosh Karthika "Surface Modification of Synthetic Textile Fibres by Plasma Treatment", *Asian Textile Journal*, pp. 64-68, Jan 2016.
18. P.Senthilkumar, and S.Kumaravel, "Waste Silk Spinning Techniques", *Spinning Textiles*, pp. 30-33, March 2016.
19. P.Senthilkumar, "Methods of Improving Clothing Comfort", *Apparel Views*, pp.56-58, Dec 2015.
20. P.Senthilkumar, "Comfort Characteristics of Sportswear", *Apparel Views*, pp.50-53, Jan 2016.
21. P.Senthilkumar, "Selection of textile materials for sportswear Part 2", *Apparel Views*, pp.42-44, March 2016.
22. P.Senthilkumar, "Development of bi-layer knitted active sportswear", *Knitting Views*, pp. 44-51, March – April 2016.

3.8.3. Papers presented in international conferences

1. N.Muthukumar, "Analysis of Piezoresistive Behavior o, Smart and Innovative Textiles AFSIT 2015 " organized by PSG institute of advanced studies, Coimbatore, on 10-12 December 2015.

3.8.4. Papers presented in national conferences

1. G.Thilagavathi, and N.Muthukumar, "Development and Characterization of Electric Heating Fabric for Cold Weather", in *All India seminar on "Technical textiles and its applications on medical and other fields"* organized by The Institution of Engineers (India) center in association with the Dept of Textile Technology, Kumaraguru College of Technology, Coimbatore, on 10 - 11, Sep 2015.
2. G.Thilagavathi, and R.Santhosh Egappan, "Needle Punched Nonwoven Fabrics For Filter Press Cloth Applications" in *All India seminar on "Technical textiles and its applications on medical and other fields"* organized by The Institution of Engineers (India) center in association with the Dept of Textile Technology, Kumaraguru College of Technology, Coimbatore, on 10 - 11, Sep 2015.
3. K.J.Vishnu Vardhini "Effect Of Alkali Treatment On Banana Fibre And Its Polypropylene Composite Properties", *National Conference on Innovations in Textiles – Processes and Products*, organized by Department of Textile Technology and, PSG College of Technology, Coimbatore on 09.04.2016.
4. N.Muthukumar and G.Thilagavathi "Investigations of Vortex Spun Yarn Properties with Ring Spun Yarns", *National Conference on Innovations In Textiles – Processes And Products*, organized by Department of Textile Technology and, PSG College of Technology, Coimbatore on 09.04.2016.
5. N.Muthukumar "Development and Characterization of Textile Heating Fabric Based on Silver Coated Nylon Yarn", UGC sponsored national conference on Eco textiles and green consumerism- ETGC-2016, organized by Avinashi Lingam University, Coimbatore, 9 -10 March 2016.

3.9. Visits abroad

3.9.1. Visits by students

S.No.	Name of student	Place of visit	Period	Purpose
1	Ms.D.Naga Aarthhi	Hof university of Applied Sciences Germany	02.11.2015 – 20.02.2016	Participating in the Student Exchange Programme

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	B.Tech Textile Technology - I Year	62
2	B.Tech Textile Technology - II Year	69
3	B.Tech Textile Technology - III Year	68
4	B.Tech Textile Technology - IV Year	71
5	B.Tech Textile Technology Part Time- I Year	11
6	B.Tech Textile Technology Part Time - II Year	16
7	B.Tech Textile Technology Part Time - III Year	31
8	M.Tech Textile Technology – I Year	7
9	M.Tech Textile Technology – II Year	10
10	M.Tech Textile Technology Part Time II Year	3

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Guest lecture on "Preparing for placement and facing interviews"	Mr.Veeramani Subramanian Production Team Manager , Decathlon Sports India, Coimbatore	70	27.06.2015
2.	Guest lecture on "Preparing for placement and facing interviews"	Shri.Mehul Pancholi Head, Arvind Centre of Excellence Arvind lifestyle brands ltd, Bangalore	70	24.07.2015
3.	Guest Lecture on " Merchandising and Apparel Costing "	Shri Mehul Pancholi Head, Arvind Centre of Excellence Arvind lifestyle brands ltd, Bangalore	70	25.07.2015
4.	Interaction meeting with B. Tech 1986-90 batch	B. Tech 1986-90 batch	120	31.07.2015
5.	Guest lectures on "3D Fibre Preforming " and "Technical Textiles And Novel Joining Methods"	Prof. Prasad Potluri EPSRC High Value Manufacturing Catapult Fellow, Professor of Robotics and Textile Composites, Director of Research, Northwest Composites Centre School of Materials, University of Manchester Dr. Richard Kennon, Lecturer, Northwest Composites Centre, School of Materials, University of Manchester, Manchester	100	03.09.2015
6.	Guest Lecture on "Compliance and Certification requirements in Organic Textiles"	Mr.Sumit Gupta Deputy Technical Director Global Organic Textile Standard (GOTS)	120	12.09.2015
7.	Guest Lecture on "Innovations in Huntsman"	Shri.V.Muthuswamy Manager, R&T Chemicals Research and Technology - Textile Effects Huntsman International (India) Private Limited.	100	09.12.2015

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
8.	Alumni Congress December 2015 - Sustainable Business in Textiles	Mr.K.Alakan, Head - Marketing, Business Innovation & Sustainability, Pallava Textile Ltd & Shri Cheran Synthetics Ltd	200	26.12.2015
9.	Alumni Congress December 2015 - Panel Discussion on Industry expectations from students / Entrepreneurship Opportunities / Question and Answer Type Interactions	Mr. T.S.Subramanian Textile Consultant, Cbe. Mr.Murugan Thenkondar, Business Development Manager, Lenzing, Coimbatore. Mr. V.Gopal, General Manager – Production, Jupiter Knitting Company, Tirupur Mr. Devendiran General Manager - Marketing, Jupiter Knitting Company, Tirupur Mr.M. Sundara Pandiyan Asst. Manager – Sales Division knitting Machine Parts M/s Groz-Beckert Asia (P) Ltd, Cbe. Mr.R.Deepak Assistant Technical Coordinator Proklean Technologies, Tirupur.	200	26.12.2015
10.	Guest Lecture on “Developments in Technical Textiles”	Prof. Dr. Wolfgang Schrott University of Applied Sciences Fachhochschule Hof, Germany	70	18.02.2016
11.	Guest lecture on “Analytical Approach in Carding”	Prof.R.Alagirusamy Dept. of Textile Technology Indian Institute of Technology (IIT) Delhi, New Delhi	70	19.02.2016
12.	Workshop on “Fabric Costing in Air Jet Weaving & Costing in Bleaching and Dyeing Units”	Prof.R.Rajagopalan Chartered Textile Engineer / Consultant, Coimbatore	60	04.04.2016

4.3. Co-curricular and extra-curricular activities

S. No.	Nature of activity	No. of students	No. of awards
1	Certificate of Merit Inter Collegiate Quiz competition	10	1
2	Sports – Athletics	12	2
3	Sports – Throw ball	15	2
4	Sports – Volley ball	15	1
5	Sports – Kho Kho	18	2
6	Nontechnical – Ink heart	20	1
7	5 th Parkcet Alumni Trophy	16	1
8	Yugam –Textile Consumers, Textile Strife	10	3
9	Paper presentation	12	1
10	Poster Presentation	14	1

4.4. Awards won by students

S.No	Roll.No	Name	Event	Award	Awarded by	Date		
1	13T221	G.N.Rohith Arumugan	Certificate of Merit Inter Collegiate Quiz competition	2 nd prize	Kasthuri Sreenivasan Trust, Coimbatore	05.09.2015		
2	13T125	M.Sneha	Sports – Athletics	2 nd prize	Anna University - Zonals	29.09.2015		
3	13T211	Jayameena	Sports	2 nd prize	Anna University - Zonals	29.09.2015		
4	13T125	M.Sneha	Sports – Throw ball	Runners	Kumaraguru College of Technology, Coimbatore	15.08.2015		
5	13T225	S.Sangavi						
6	13T120	P.Sangeetha						
7	13T116	G.Priya	Sports - Volley ball	Winners				
8	13T220	T.Ramya	Sports – Kho Kho	Runners				
9	13T211	S.Jayameena						
10	13T224	S.Sandhya						
11	13T125	M.Sneha					Nontechnical – Ink heart	2 nd prize
12	13T220	T.Ramya	Sports – Kho Kho	Winners			PSGCT, Coimbatore	30.01.2016-31.01.2016
13	13T211	S.Jayameena						
14	13T224	S.Sandhya						
15	13T125	M.Sneha	5 th Parkcet Alumni Triphy	Winners	Park College of Engineering and Technology, Coimbatore	01.02.2016-08.02.2016		
16	13T225	S.Sangavi						
17	13T211	S.Jayameena	Yugam --Textile Consumers	1 st price	Kumaraguru College of Technology, Coimbatore	11.02.2016		
18	13T224	S.Sandhya		2 nd price				
19	13T117	J.Priyanka						
20	13T213	P.Karthika						
21	13T116	G.Priya	Sports – Volley ball	Runners	PSGCT, Coimbatore	03.04.2016-04.02.2016		
22	12T130	R.Yeswanth Kumar	Yugam –Textile Strife	1 st price	Kumaraguru College of Technology, Coimbatore	11.02.2016		
23	13T114	M.Pavithra Meenakshi	Paper presentation	2 nd price		23.03.2016		
24	14T403	V.M.Shripradha	Volley Ball (Women)	Runners	Sastra university	27.02.2015-01.03.2015		
25	13T112	S.Kavitha	Poster Presentation	1 st price	Sona College of Technology, Salem	10.02.2016		

4.5. Final year project work

4.5.1. UG project (regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
1	13T406	Vigneshraja.E	Performance Study of Eton		Himatsingka Seide, Bangalore
2	12T219	Santhosh Vairavan.R	Development of natural fibrous sorbent for marine oil spill clean up	Dr.G.Thilagavathi	-
3	12T125	Sonali Vaishnavi.R			
4	12T204	Baskaran.V			
5	12T207	Kishore Kumar.J			
6	12T119	Santhosh Egappan.R	Development and characterization of filter press media- A novel alternative design for sludge dewatering in textile effluent treatment plants	Dr.G.Thilagavathi	-
7	12T221	Sri Bharnika.R			
8	12T213	Pinninti Mahesh			
9	12T113	Malathi A			
10	12T111	Jaya Priya.S	Study on Factors Influencing the Apparel Product Quality	Dr.G.Thilagavathi	Himatsingka Seide, Bangalore
11	12T211	Naga Aarthhi.D	Development of textile products using pine	Dr.T.Senthil Ram	-
12	13T431	Anand.K			
13	13T405	Suthirraj.S.D			
14	12T106	Dhaslima Sulthana.M	Analysis of bulk to bulk shade variation for attaining right first time	Dr.G.Thilagavathi	Welspun, Mumbai
15	12T220	Sneha.S.R	Optimization of line process to target level performance in casual shirt finishing	Dr.N.Anbumani	ITC, Bangalore
16	12T222	Sukanya.K	An experimental approach on implementation of cost and quality improvement in line		Decathlon, Coimbatore
17	12T212	Pavithra.S	Study on Fabric Structure Aspects	Prof.R.P. Sundaram	Arvind Lifestyle, Bangalore
18	12T127	Sughashini.P	Design and development of semi automatic prototype machine for knitted collar separating process		-
19	12T208	Manoranjith.A			
20	12T209	Mohamed Thoufiq. A			
21	12T116	Nivetha.M	Loom Performance Study Between Pleva And Non-Pleva Beams	Dr.R.Murugan	Himatsingka Seide, Bangalore
22	12T226	Yoga Priya.D	A study on the mechanical and acoustic		-
23	13T404	Shajitha.K			

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
24	13T438	Srimanjari.R	properties of sisal		
25	12T112	Kaviya.V	Crease resistance finish on silk fabric	Dr.M.Senthil kumar	-
26	12T102	Aparna Shree.M			
27	13T403	Balaji.V			
28	13T435	Sanmugapraveen.R.S			
29	12T108	Dhivvaa.E	Comparative study on the type of exhaust medium and low liquor methods in application of reactive dyes on cotton	Dr.S.Periyasamy	-
30	12T122	Sevanthi.M			
31	12T123	Shobana.D			
32	09T212	Saravana Kumar.M	Studies on pattern development	Dr.S.Viju	JJ Mills, Tirupur
33	13T402	Aswathi.K	Development of antimicrobial finished fabric for baby apparel- A ecofriendly approach		-
34	12T105	Balasubramaniam.N			
35	12T118	Renukadevi.T			
36	12T121	Sasti Rayan.C			
37	13T401	Abirami.B	Manpower optimization in sewing department in garment industry		ITC, Bangalore
38	12T109	Gayathri.R	Simulation and analysis of cricket chest pads and development of impact resistance tester	Dr.P.Senthil Kumar	-
39	13T439	Srimeeina.S			
40	12T130	Yeswanth Kumar.R			
41	13T433	Govarathanan.S			
42	13T434	Madavraj.A	Investigation of removal of contaminants before ginning and machine fabrication	Dr.J.C.Sakthivel	Sritex Hi-Tech, Coimbatore
43	12T224	Vigneshwaran.S			
44	12T216	Ramasamy.R			
45	12T206	Dinesh.P			
46	12T117	Preethy.S	Development of bamboo based plaited knitted fabrics for sports wear	Dr.P.Ganesan	-
47	12T107	Dhivya.S			
48	12T218	Santhiya.S			
49	12T223	Suratkal Shrijay Kiran			
50	12T124	Sindhuja.T.K	Design and development of bobbin-less lock stitch machine	Dr.T.Karthik	-
51	12T110	Gayathri.S			
52	12T215	Rajgowtham.D			
53	12T104	Ashfaq Ahamed.S.M			
54	13T437	Shanmugam.T	Optimum utilization of man power and reduction of material handling time in trouser line		ITC, Bangalore
55	12T101	Amrish.N.R	Development of cut resistant gloves	Mr.S.Kumaravel	-
56	12T120	Saravanan.M			
57	12T129	Vishnu Prasad.R.T			
58	12T214	Preethi.R			
59	12T217	Rathna Priya.K			
60	12T201	Anguraj.K	Productivity improvement in cutting		

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
			department in a garment industry		ITC, Bangalore
61	12T202	Anusha.S	Reducing chick mortality in African lovebirds by using a specially treated fabric for aviculture industry	Mrs.K.J.Vishnu Vardhini	-
62	12T203	Ashwin.B			
63	12T205	Dhanya Sagari.R			
64	12T103	Arjun Sethu.R	Development and characterization of spacer fabric for arm sling applications	Dr.N.Muthu kumar	-
65	12T114	Mangaiyarkarasi.S			
66	12T126	Sree Sarrani.T.K			
67	12T225	Vikashni.N.V			
68	12T210	Monika.S	Investigations on nonwoven fabric characteristics for their suitability for garment manufacture	Mr.G.Maheswaran	Himatsingka Seide, Bangalore

4.5.2. UG Project (Part Time)

S.No.	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
1	11T809 12T814 12T817 12T836	Kannan K Mahendran A Manikandasamy M Sridhar S	Investigations on the Filtration Efficiency of Nonwoven Filter Media in the Pre filtration of Effluent	Dr.G.Thilagavathi	-
2	12T816 12T827 12T832 12T838	Manikandan M Prakash E Ravi S Umabalan U	A Study on Thermal & Acoustic Property of Nonwovens Developed from Animal Fibres	Dr.R.Murugan	-
3	12T809 12T822 12T823 12T824	Gunasekaran K S Natarajan S Navaneetha krishnan R Parthiban S	Shrinkage controlling Waffle Fabric by Finishing Technique	Dr.M.Senthil kumar	-
4	12T802 12T803 12T804 12T821	Andavan K Arunkarthik K Balakrishnan S Nadhagoundan N	Study on Pilling Behavior of Textile Structuring	Dr.S.Periyasamy	-
5	12T811 12T826 12T830 12T834	Kothandan M V Prabhakar I Rajesh S Sasikumaran R	Development of Oil Sorption Pads using Natural Fibre based Nonwovens	Dr.S.Viju	-

S.No.	Roll No	Name of student	Title of the project	Guide	Industry /Institute associated
6	12T815 12T818 12T820 12T844	Mahesh R S Megala N Murugesan M Vijayakumar P	Mechanical laid Needle Punched Polyester Nonwoven Fabric for Automotive Interior	Dr.J.C.Sakthivel	-
7	12T806 12T839 12T840 12T843	Chidambaram M Vasudevan C Veerabathran R Vignesh V P	Development and characterization of bio polymer honey and herbal blended films for wound dressing	Dr.P.Ganesan	-
8	12T813 12T819 12T828 12T833	Lakshminarasimhan Moorthi S Premkumar K Saravanakumar R	Production and Analysis of Moisture Management Characteristics of Polyester / Milkweed Blended Fabrics	Dr.T.Karthik	-
9	10T803 11T816 12T837 12T845	Arulmozhi D Muthuvelayutham C Tulasidevi S Vinodkumar S	Preparation of sericin particles and their application on medicated textiles	Dr.H.Ram Mohan	-

4.5.3. PG Project (regular)

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
1	14MT08	M.Sadasivam	Pineapple leaf fibrous mat for industrial textile application	Dr.G.Thilagavathi	-
2	14MT09	J.Saranya	Defect free garment in sewing – An alternate approach	Dr.N.Anbumani	-
3	14MT02	T.S.Muthuarun	Analysis of animal hair as a fibre for potential textile use	Dr.R.Murugan Mrs.K.J.Vishnu Vardhini	-
4	14MT05	I.Raajhashree	Development of face mask for special medical application	Dr.M.Senthil kumar	-
5	14MT07	S.Revathy	Development of luminous textiles using ultra thin leds and optical fibers	Dr.S.Periyasamy	-
6	14MT01	M.Damayanthi	Development of oil sorbent nonwovens using natural fibers	Dr.S.Viju	-
7	14MT04	V.Punitha	Modelling and predicting thermal characteristics of knitted fabrics using Finite element method	Dr.P.Senthil kumar	-
8	14MT06	S.Rajeshkumar	Study on the improvement of weavability in cotton spun yarn using fish scale extracts	Dr.J.C.Sakthivel	-
9	14MT03	P.Pradeepa	Development of nanofibrous mat by electro spinning of PVA	Dr.P.Ganesan	-

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
			blended with tridax procumbens leaf extract for wound dressings		

4.5.4. PG Project (Part Time)

S.No.	Roll No.	Name of student	Title of the project	Guide
1	13MT66	A.Sivaramakrishnan	Development of nonwoven cartridge filter for textile effluent filtration	Dr.G.Thilagavathi
2	13MT64	N.Naveen	Development of light weight composite using fibre blends for automotive applications	Dr.R.Murugan/ Dr.T.Karthik
3	13MT62	H.Malini	Development of Nonwoven using Flax and Kapok fibre for acoustical application	Dr.M.Senthil kumar
4	13MT61	M.Kumaran	Development of 3D spacer fabric mattress to prevent pressure ulcers	Dr.S.Periyasamy
5	13MT63	D.Menaka	Development of silk sutures with anti-microbial characteristics using natural extracts	Dr.S.Viju
6	13MT65	R.Radhika	Study on the properties of korai grass fibre reinforced composite	Dr.J.C.Sakthivel

4.6. Competitive exam

S.No.	Exam	No. of students appeared	Students qualified	
			Roll.No.	Name
1	GATE	12	12T119	Santhosh Egappan R
			13T405	Suthirraj S D
			13T431	Anand K

4.7. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1	Mu Sigma Business Solutions Ltd, Bangalore	1	12T219	R.Santhosh Vairavan	7.0
2	Shri Ram Fibers Ltd, Chennai	1	12T119	R.Santhosh Egappan	5.0
3	Latentview Analytics Ltd, Chennai	1	12T104	S.M.Ashfauq Ahamed	4.5
4	Cognizant Technology Solutions, Chennai	4	12T117	S.Preethy	3.35
5			12T126	T.K.Sree Sarrani	
6			12T220	S.R.Sneha	
7			12T222	K.Sukanya	
8	Voltas India Ltd, Coimbatore	2	12T121	C.Sasti Rayan	3.25
9			13T431	K.Anand	

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
10	Infosys Ltd, Bangalore	1	12T127	P.Sugashini	3.24
11	Accenture Consulting Services, Bangalore	6	12T107	S.Dhivya	3.15
12			12T112	V.Kaviya	
13			12T208	A.Mano Ranjith	
14			12T212	S.Pavithra	
15			12T225	N.V.Vikashni	
16			12T226	D.Yoga Priya	
17	Laguna Clothing Ltd, Bangalore	1	12T125	R. Sonali Vaishnavi	3.12
18	Tata Consultancy Services Ltd, Chennai	2	12T105	N.Balasubramaniam	3.3
19			12T206	P.Dinesh	
20	Himatsingka Seide Ltd, Bangalore	7	12T102	M.Aparna Shree	3.0
21			12T111	S.Jayapriya	
22			12T116	M.Nivetha	
23			12T118	T.Renuka Devi	
24			12T124	T.K.Sindhuja	
25			12T210	S.Monika	
26			13T406	E.Vigneshraja	
27	Vardhaman Textiles Ltd, Punjab	4	12T103	R.Arjun Sethu	3.0
28			12T209	A.Mohamed Thoufiq	
29			12T216	R.Ramasamy	
30			13T434	A.Madavaraj	
31	DONEAR Suiting and Shirtings Ltd, Surat	3	13T403	V. Balaji	3.0
32			13T405	S.D. Sudhir Raj	
33			13T439	S.Srimeeina	
34	Madura Clothing Ltd Bangalore	3	12T128	S.Tharanya Shree	3.0
35			12T205	R. Dhanya Sagari	
36			12T215	D. Raj Gowtham	
37	Welspun Syntex Ltd, Tirupur	1	12T408	Gowthaman C	2.4
38	ITC Garments Ltd, Bangalore	4	12T201	Anguraj K	2.8
39			13T401	Abirami B	
40			12T220	Sneha S R	
41			13T437	Shanmugam T	
42	Jay Jay Miils, Tirupur	2	12T110	Gayathri S	1.8
43			09T212	Saravanakumar. M	1.8
44	Ahill Exports Ltd, Tirupur	1	12T120	Saravanakumar. M	1.7

4.8. Industrial training and projects

4.8.1. Industrial Visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	Sri Varadharaja Textile mill, Coimbatore	60, UG /II	19.06.2015	Spinning
2	PSG COE-INDUTECH, Coimbatore	60, UG / II	26.06.2015	Technical Textile

S.No.	Name of company	No. of students & course	Period	Area of training
3	Aathava Garments, Coimbatore	60, UG / II	03.07.2015	Garments
4	SCM Textile Spinners, Thekkalur, Coimbatore	60,UG / I	22.07.2015	Spinning
5	Jacquard Fabrics India PVT LTD, Kinathukadhavu, Coimbatore	70, UG / V	08.08.2015	Manual Fibre Spinning & Weaving (Mattress)
6	Visai Textile, Tirupur	7, PG / I	04.09.2015	Nonwoven
7	PSG Nano centre, Coimbatore	7, PG / I	11.09.2015	Nano Technology
8	Central Institute for Cotton Research, Coimbatore	7, PG / I	18.09.2015	Cotton Research
9	Chandan Textile, Bangalore	60, UG / III	09.10.2015-10.10.2015	Garments
10	Europa Garments, Bangalore	60, UG / III	10.10.2015	Garments
11	GTA PVT LTD, Coimbatore	7, PG / I	16.10.2015	Weaving & Knitting (Mattress)
12	Athava Garments, Coimbatore	68, UG / VI	11.12.2015	Garments
13	Sree Vari Apparels, Coimbatore	68, UG /VI	12.02.2016	Garments

4.8.2. Project work and internships

S.No.	Name of company	No. of students & course	Period	Area of work
1	Himatsingka Seide, Bangalore	6 B.Tech 8 th sem	20.12.2015-20.02.2016	Weaving
2	Welspun, Mumbai	1 B.Tech 8 th sem	08.01.2016-11.04.2016	Analysis of Processing parameter (Bulk to Bulk) to improve right first time
3	Madura Clothing, Bangalore	3 B.Tech 8 th sem	4.12.2015-12.03.2016	Operational Excellence- Value Stream Mapping in stores
4	Arvind Lifestyle, Bangalore	2 B.Tech 8 th sem	4.01.2016-15.03.2016	Study on Fabric Structure Aspects
5	Jay Jay Mills, Tirupur	1 B.Tech 8 th sem	8.01.2016-31.03.2016	Studies on pattern development
6	Sritex Hi-Tech, Coimbatore	3 B.Tech 8 th sem	9.12.2015-07.04.2016	Investigation of Removal of Contamination before ginning and machine fabrication
7	ITC, Bangalore	4 B.Tech 8 th sem	07.12.2015-15.04.2016	Optimize line Parameters in cutting dept by value stream mapping
8	Decathlon, Coimbatore	1 B.Tech 8 th sem	7.11.2015-01.04.2016	DP India Component Catalogue Designing - DP India Lab kick off for fabric testing

4.9. PSG Tech students pursuing higher studies

S.No	Name of the student	Degree pursuing	University
1	Ms.Jerlin Rose L	MFT	NIFT, Bangalore
2	Ms.Tejal Shivakumar	MS	Birmingham City University, UK
3	Mr.Raguraam J C	MS	Birmingham City University, UK
4	Mr.Nisshanth P V	PGDM, Business Entrepreneur	Entrepreneurship Development Institute of India, Gandhinagar, Gujarat
5	Ms.Nivetha K	MBA	Christ University, Bangalore

4.10. No. of students passed out

Year	UG	PG	Year	UG	PG	Year	UG	PG	Year	UG	PG
1981	2	5	1991	31	14	2001	49	14	2011	44	6
1982	6	4	1992	27	4	2002	98	9	2012	94	25
1983	31	5	1993	36	12	2003	111	6	2013	61	17
1984	32	5	1994	38	10	2004	121	15	2014	61	10
1985	27	9	1995	50	10	2005	113	16	2015	61	10
1986	52	10	1996	35	6	2006	59	25	2016	67	9
1987	30	1	1997	24	13	2007	94	7			
1988	28	5	1998	67	2	2008	72	15			
1989	39	-	1999	58	10	2009	56	6			
1990	23	4	2000	47	5	2010	64	12			

5. SUMMARY

S. No.	Activity	No.	
1.	International conferences conducted	1	
2.	National conferences conducted	1	
3.	Workshops conducted	3	
4.	Sponsored research projects ongoing	6	
5.	Sponsored research projects completed till date	16	
6.	Scholars pursuing doctoral research	27	
7.	Doctorates produced till date	54	
8.	Papers published in international journals	17	
9.	Papers published in national journals	22	
10.	Papers presented in international conferences	1	
11.	Papers presented in national conferences	5	
12.	Books published	9	
13.	Awards won by faculty	3	
14.	Awards won by students	25	
15.	No. of students passed out during 2015-16	UG	67
		PG	9
16.	No. of students passed out till date	UG	1908
		PG	336

DEPARTMENT OF APPAREL & FASHION DESIGN

ABOUT THE DEPARTMENT

The Department of Apparel & Fashion Design was constituted as a new department in the year 2014. B.Sc. Apparel and Fashion Design Programme is the first of its kind at the college offered to meet the creative and technological man power needs of the industry. This programme primarily aims at equipping the students to face the intellectual demands imposed by the complex fashion and apparel industry.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr. D. Vijayalakshmi, M.Sc., Ph.D. Assistant Professor(Sr Gr) Head of the Department i/c	hod@afd.psgtech.ac.in	2001	Fashion Design, Apparel Manufacturing, Visual Merchandising
2.	Dr.Nirmala Varghese, M.Sc., Ph.D. Assistant Professor (Sl Gr)	rvn@afd.psgtech.ac.in	2001	Pattern Engineering, Apparel CAD, Fashion Designing, Garment Manufacturing Technology
3.	Dr. Mariyam Adnan, M.Sc., M.Phil., Ph.D. Assistant Professor (Senior Grade)	mag@afd.psgtech.ac.in	2007	Surface Ornamentation, Apparel Production, Fashion Designing, Computer Aided Fashion Designing
4.	Dr. R. Prathiba Devi, M.Sc., M.Phil., Ph.D. Assistant Professor (Sr Gr)	rpd@afd.psgtech.ac.in	2007	Costumes and Apparel Industry,Pattern Engineering,Fashion Design,Apparel Production, Apparel Accessories & Surface Ornamentation
5.	Mrs. R. Thenmozhi, D.K.T., B.Tech. M.Tech. Assistant Professor	rtn@afd.psgtech.ac.in	2011	Basics of Textile Manufacturing, Apparel Quality Evaluation, Apparel Machinery & Equipment, Apparel CAD, Apparel Production
6.	Mrs. N. Santhi, D.T.P., B.F.T., B.Tech. Assistant Professor	nsa@afd.psgtech.ac.in	2011	Textile Chemical Processing, Apparel Production

2. FACULTY DEVELOPMENT

2.1. Conference / Workshop/Training program conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr.D.Vijayalakshmi Mrs.R.Thenmozhi Mrs.N.Santhi	“Designing and Stitching of Ladies Wear”	-	25.06.2015 - 15.08.2015

2.2. Conference / Workshop/Training program attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1.	Mrs.R.Thenmozhi	Training on "ISO awareness"	Department of Humanities	27.06.2015
2.	Mrs.N.Santhi			
3.	Dr.Nirmala Varghese Dr. Mariyam Adnan	Confederation of Indian Textile Industry Organized a one day conferences on "The Natural Fibre Conclave"	Department of Textile Technology PSG CT	22.07.2015
4.	Dr. Mariyam Adnan	Training on "Computer Aided Fashion Designing with various softwares used in Apparel Industry for designing"	Dream Zone, Coimbatore	03.11.2015 - 05.11.2015 & 26.11.2015 - 29.11.2015
5.	Dr.D.Vijayalakshmi	Researches in Science, Management and Engineering (ICRSME 2016)	International organization of scientific research and development (IOSRD) Chennai	19.02.2016
6.	Mrs.R.Thenmozhi	"Eco Textiles and Green Consumerism" ETGC -2016	Avinashilingam Institute for Home Science and Higher Education for women, Coimbatore	09.03.2016 - 10.03.2016
7	Mrs. N.Santhi	Workshop on Moodle	PSG Center for Academic Research and Excellence, Coimbatore	22.04.2016
8	Mrs.R.Thenmozhi	Training on Apparel Production Planning and control	Classic Polo Group, Tirupur	10.05.2016 - 17.05.2016

2.3. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Dr.D.Vijaya lakshmi	"Garment Manufacturing Technology"	"Fashion Design"	Sardar Vallabhbhai Patel International School of Textiles & Management (SVPISTM) in association with Department of Handlooms & Textile, Chennai, Govt. of Tamil Nadu	08.06.2015

2.4 Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1.	Dr.D.Vijayalakshmi	Member, Question Paper Passing Board, Textile & Fashion Technology Board	Anna University, Chennai
2.	Dr.Nirmala Varghese		

S.No.	Name of faculty	Activity / Role	Organization
3.	Dr.D.Vijayalakshmi	Invited as a Chief Guest for valediction of Fine Arts and Environmental Development club (Creative Thinking)	PSG Poly Technic College, Coimbatore
4	Mrs.R.Thenmozhi	Paper Presentation	Avinashilingam Institute for Home Science and Higher Education for women, Coimbatore.
5	Dr.D.Vijayalakshmi	Paper Presentation	International Organization of Scientific Research and Development (IOSRD) Chennai

2.5. Award won by faculty

S.No	Name of faculty	Name of Award	Awarded by	Date
1.	Mrs.R.Thenmozhi	Paper Presentation 3 rd Prize	Avinashilingam Institute for Home Science and Higher Education for women, Coimbatore	09.03.2016-10.03.2016
2	Dr.D.Vijayalakshmi	Best Paper	International Organization of scientific Research and Development (IOSRD) Chennai.	19.02.2016

3. DEPARTMENT ACTIVITIES

3.1. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1.	GRD Library – B.Sc Apparel & Fashion Design	5,490	1,674	756	2	22	-

3.2. Board of studies

S. No.	Date	Agenda	External experts
1.	13.06.2015	Introduction of choice based credit system for M.Sc., Fashion Design & Merchandising (5 yrs integrated course) 2015 regulation.	1. Mr. Kaustav SenGupta Associate Professor National Institute of Fashion Technology (Govt. of India) 2NIFT Campus, Rajiv Gandhi salai Taramani, Chennai – 600113

S. No.	Date	Agenda	External experts
		Discussion on the Scheme & first year detailed syllabus for M.Sc., Fashion Design & Merchandising (5 yrs integrated course) 2015 regulation.	<p>2. Mr. Kaustav SenGupta Associate Professor National Institute of Fashion Technology Govt. of India) 2NIFT Campus, Rajiv Gandhi salai Taramani, Chennai – 600113</p> <p>3. Dr.N.Selvakumar Professor Department of Textile Technology Anna University, Chennai – 25</p> <p>4. Mr.Prasanna Anguraj A CEO, SKTM “Vasuki”, 32 – 34, KVP Layout, Alankadu, Karuvam Palayam, Tirupur – 641 604</p> <p>5. Mrs.Kanaka Ananth Faculty of Industrial Design DJ Academy of Design Coimbatore-pollachi Highway Othakkalmandapam (P.O) Coimbatore – 641 032</p>
2.	31.10.2015	Preparation of scheme and detailed syllabi (3 rd semester to 10 th semester) for M.Sc., Fashion Design & Merchandising (5 yrs integrated course) 2015 regulations.	<p>1. Mr. Kaustav SenGupta Associate Professor National Institute of Fashion Technology (Govt. of India), 2NIFT Campus, Rajiv Gandhi salai, Taramani, Chennai</p> <p>2. Dr.N.Selvakumar Professor Department of Textile Technology Anna University, Chennai – 25</p> <p>3. Mr.Anuraag S Visual Merchandising Group Manager Allen Solly, Madura Fashion & Lifestyle Plot No 5b, Regent Gateway, Doddanakundi Village, Kiadb Industrial Area, ITPL Main Road, Bengaluru - 560 048</p> <p>4. Mr.Prasanna Anguraj A CEO, SKTM, “Vasuki”, 32 – 34, KVP Layout, Alankadu, Karuvam Palayam, Tirupur – 641 604</p> <p>5. Mrs.Kanaka Ananth Faculty of Industrial Design DJ Academy of Design Othakkalmandapam (P.O) Coimbatore – 641 032</p>

3.3. Research publications

3.3.1. Papers published in international journals:

1. Nirmala Varghese, "Handle, Fit and Pressure Comfort of Silk/Hybrid Yarn Woven Stretch Fabrics", *Journal of Fiber and Polymers*, Vol.0, No.0, pp. 484-494, February 2016.

3.3.2. Papers presented in national conferences

1. R.Thenmozhi, "Extraction and Application of Natural Dyes from Pseudo stem and Henna in Silk/Aloevera Blended Fabrics", *Proceedings of national Conference on Eco Textiles and Green Consumerism* ETGC - 2016, Department of Textiles & Clothing, Avinashilingam Institute for Home Science and Higher Education for women, Coimbatore, March 2016.

3.3.3. Papers presented in International conferences

1. D.Vijayalakshmi, "Creating contemporary fashion in Denim tops for young girls", *Proceedings of International Conference on Researches in Science, Management and Engineering (ICRSME 2016)* Coimbatore, February 2016.

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1.	B.Sc. Apparel & Fashion Design - II Year	45
2.	M.Sc. Fashion Design & Merchandising - I year	40

4.2. Association activity:

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Design Studios	Mrs.Poonguzhali Venkatraj Marketing head,Shantala Designer Boutique, Coimbatore	100	07.08.2015
2.	A Guide to Portfolio Making	Ms.Thanusheeya Vinayak Selvakumar Freelance Fashion Media Stylist	100	05.02.2016
3.	Indian Folk Art	Mr.SCD.Balaji Chief Creative Officer, ATMA Studios, Coimbatore	100	13.02.2016
4.	Apparel Marketing Strategies Approach to move forward	Mr.Karthikeyan Sundarraj Executive Assistant, Karle International ,Bangalore	100	19.02.2016
5.	Fabric in Value Addition	Mr. Michael Rodrigues General Manager(Marketing) Shakthi Knitting PVT.LTD	40	27.02.2016
6.	Developing Creative Intelligence	Mr.Anuraag S Allen Solly, Madura Fashion & Life Style, Bangalore	100	08.04.2016

4.3. Co-curricular and extra-curricular activities

S.No.	Nature of activity	No. of students	No. of awards
1.	Singing [KCT (Yugam'15)]	4	4
2.	Ensemble 2015 [Kerala]	5	"Seematti, The Queen of Silks"

S.No.	Nature of activity	No. of students	No. of awards
3.	Chrysalis 2015 [Bangalore ALFD]	2	2
4.	Sketch it [FAC]	1	1

4.4. Awards won by students:

S.No.	Name of student	Roll no.	Nature of activity	Award	Awarded by	Date
1.	Ms.Akshaya V	14F003	Sketch it	1 st Prize	Fine Arts Club	17.08.2015
2.	Ms.Avarn M Ms.Jenipriya S	14F006 14F014	Chrysalis 2015	2 nd Prize	Bangalore ALFD	13.10.2015
3.	Ms.Adarsya Padmasri S Ms.Avarn M Ms.Jyothieshwari T Ms.Preethi S Ms.Shwetha D	14F002 14F006 15PF11 15PF22 15PF28	Ensemble 2015	-	"Seematti, The Queen of Silks" Cochin	10.10.2015
4.	Ms.Adarsya Padmasri S Ms.Avarn M Ms.Jenipriya S Ms.Monish K	14F002 14F006 14F014 14F020	Melange - Yugam	1 st Prize 2 nd Prize	Kumaraguru College of Technology Coimbatore	15.02.2016
5.	Ms.Adarsya Padmasri S Ms.Avarn M Ms.Jenipriya S	14F002 14F006 14F014	Visual Expo - Yugam	1 st Prize 2 nd Prize	Kumaraguru College of Technology Coimbatore.	15.02.2016

4.5. Industrial Visit

S.No.	Name of company	No. of students & course	Period	Area of training
1.	Ever Green, Tirupur	49 students of B.Sc Apparel & Fashion Design	22.08.2015	Printing
2.	Jai Vishnu, Tirupur		29.01.2016 & 31.01.2016	Apparel Finishing
3.	Wonder Blue, Bangalore			Garment Construction
4.	Pony Needles, Ooty	40 students of M.Sc Fashion Design & Merchandising	08.05.2016	Garment Construction

4.6. No. of students passed out

Year	UG	Year	UG
	BSc AFT		BSc AFT
2003	40	2010	38
2004	48	2011	28
2005	47	2012	44
2006	36	2013	42
2007	57	2014	38
2008	49	2015	41
2009	22	2016	-

5. SUMMARY

S.No.	Activity	No.
1	Short-term training programs conducted (on going)	1
2	Doctorates produced till date	4
3	Papers published in national conferences	1
4	Papers presented in international conferences	1
5	Awards won by students	8
6	No. of. students passed out during 2015-16	UG
7	No. of. students passed out till date	UG

**DEPARTMENT OF APPLIED MATHEMATICS AND
COMPUTATIONAL SCIENCES**

ABOUT THE DEPARTMENT

The objective of the Department of Applied Mathematics and Computational Sciences is to develop quality professionals by providing concept oriented subject knowledge through high quality teaching supplemented with practical training. Apart from specialized knowledge and skills, the programmes conducted by the department aim to develop the personality of students by inculcating values of honesty, sincerity, team spirit and work culture.

The department comprises of dedicated faculty members. It is known for its discipline and the importance it gives to the overall development of students in grooming them towards becoming good software professionals. The department has its own library with latest books, national and international journals and magazines. The computer centre is well equipped with the most recent hardware and software. To keep in touch with the ever-growing technology, the faculty members participate regularly in refresher courses and symposia conducted by various Universities, Research Institutions and Professional Bodies like Computer Society of India and Association of Computing Machinery. The department organizes technical symposia at national and international levels at regular intervals and also encourages the faculty members and students to undertake research activities in various fields of computing.

Apart from stressing on consistently and good academic performance, the department also encourages participation in co-curricular and extracurricular activities to bring out the latent talents in its students. The students are provided with ample opportunities to improve their organizational skills and group dynamics. They are motivated to handle seminars and to participate in group discussions. Apart from the service to Undergraduate and Graduate Engineering and Technology programmes, the department has three internationally recognized programmes, M.Sc (Applied Mathematics), M.Sc Software Systems and M.Sc Theoretical Computer Science. The curriculum is constantly upgraded to nurture the present need of industry and R&D. The department also has a very good placement record and extensively broad Alumni network. Various laboratories like Computational Science Lab, Smart and Secure Environment Lab, Computational Neuroscience Lab and PSG Skava Mobile Computing Lab have been set up in collaboration with various R & D Organizations and Universities.

A brief on research activities

The department is actively involved in research activities by means of paper publications, sponsored projects and conferences. The faculty and research scholars of the department have published 15 papers in international journals during the academic year. Faculty members have attended various conferences both at the National and International levels and have presented papers. The doctoral research students of the department are pursuing research in the areas of Graph Theory, Soft Computing, Cryptography, Data Mining and Queueing Theory. During the last academic year, one candidate has submitted doctoral thesis. 37 candidates are presently pursuing Ph.D Programme in the department. The department has also been conducting regular R & D Seminars, on a weekly basis, to foster research activities.

Major areas of research

- Cryptography
- Data Compression
- Data Mining
- Database Management Systems
- Graph Theory
- Image Processing

- Mobile Computing
- Multilingual Computing
- Neural Networks
- Object Oriented Frame Work
- Operation Topology
- Pattern Recognition
- Semantic Web
- Soft Computing
- Software Engineering
- Stochastic Models
- Wavelet Transforms
- Topology
- Cloud Security
- Resilient Systems
- Digital Forensics
- Intrusion Detection
- Security Protocols
- Information security and watermarking
- Big Data Analytics
- Epidemic Models
- Quantum Computing
- Theory of Computation
- Bioinformatics
- Evolutionary Computation

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr. R. Nadarajan, Ph.D. Professor and Head	rn@amc.psgtech.ac.in	1982	Object computing, Data mining, Queuing theory
2.	Dr. R. Anitha, Ph.D Associate Professor	anitha_nadarajan@mail.psgtech.ac.in	1986	Queuing theory, Cryptography and security in computing
3.	Dr.N.Geetha, Ph.D Associate Professor	ngg@amc.psgtech.ac.in	2001	Unix architecture and programming, Data mining, Soft computing, Pattern recognition
4.	Dr.G.Sai Sundararishnan, Ph.D Associate Professor	ssk@amc.psgtech.ac.in	1999	General topology, Operation topology
5.	Mr. N. Mohanraj, M.Phil Associate Professor	nmr@amc.psgtech.ac.in	1999	Software engineering
6.	Dr. R.S. Lekshmi, Ph.D Associate Professor	rsl@amc.psgtech.ac.in	1999	Graph theory
7.	Dr.Suresh Balusamy, Ph.D Associate Professor	sbs@amc.psgtech.ac.in	2009	Computational science, Parallel computing compilers
8.	Dr.M.Senthil Kumar, Ph.D Associate Professor	msk@amc.psgtech.ac.in	1999	Retrial Queue and Communication Networks

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
9.	Dr. R. Vijayalakshmi, Ph.D Associate Professor	rvi@amc.psgtech.ac.in	2004	Database management systems, Data mining
10.	Dr. RM. Periakaruppan, Ph.D Associate Professor	rmp@amc.psgtech.ac.in	1999	Mobile computing, Semantic web
11.	Ms.S.D.Suganthi, M.Phil Assistant Professor (SG)	sds@amc.psgtech.ac.in	2008	Wireless & Communication networks, Computer architecture, Micro processors
12.	Mr.A.S.Syed Nazir Ahmed, MCA Assistant Professor (SG)	sna@amc.psgtech.ac.in	2010	Project Management, Software Engineering & DBMS
13.	Mr. A. Muthusamy, M.Phil Assistant Professor (SG)	ams.mca@gapps.psgtech.ac.in	2000	Theoretical Computer Science
14.	Dr.V.Senthilkumaran, Ph.D Assistant Professor (SG)	vsk@amc.psgtech.ac.in	2007	Web services, Semantic web
15.	Dr. N. Ilayaraja, Ph.D Assistant Professor (SG)	nir@amc.psgtech.ac.in	2001	Database systems, Pervasive computing, Computer Networks
16.	Dr. N. Rajamanickam, Ph.D Assistant Professor (SG)	nrm@amc.psgtech.ac.in	2002	System software, Enterprise computing, Real time and Embedded systems
17.	Dr. Shina Sheen, Ph.D Assistant Professor (SG)	ssh@amc.psgtech.ac.in	2005	Computer networks, Data mining
18.	Dr. M. Dominic Savio Ph.D Assistant Peofessor (SG)	mds@amc.psgtech.ac.in	2005	Database Management System, Data Mining
19.	Dr. B. Malar, Ph.D Assistant Professor (SG)	bmr@amc.psgtech.ac.in	2005	Date Structures, Machine Learning, Data Mining
20.	Ms. G. Priyalakshmi, MCA Assistant Professor (Sr.Gr.)	gpl@amc.psgtech.ac.in	2003	OOAD, Software Patterns, Code Refactoring
21.	Ms.R.Latha, M.Phil Assistant Professor (Sr.Gr.)	rla@amc.psgtech.ac.in	2006	Information Retrieval, Recommender Systems
22.	Mr. K. Mohan MCA Assistant Professor (Sr.Gr)	kmn@amc.psgtech.ac.in	2006	Software Engineering Web Technology, RDBMS
23.	Ms. M. Kasthuri Bai, M.Phil Assistant Professor (Sr.Gr)	mkb@amc.psgtech.ac.in	2007	Database Management System
24.	Ms.P.Thanalakshmi, M.Phil Assistant Professor (Sr.Gr.)	ptl@amc.psgtech.ac.in	2008	Applied Mathematics, Operations research
25.	Ms. N. Brindha, M.E Assistant Professor (Sr.Gr)	snb@amc.psgtech.ac.in	2004	Software Engineering, Multimedia Systems, Distributed Computing, DBMS, Microprocessor
26.	Ms. S. Deepa, M.Phil Assistant Professor (Sr.Gr)	sde@amc.psgtech.ac.in	2006	Operating System, PC Architecture & Maintenance

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
27.	Ms. M. Megala , M.Phil Assistant Professor (Sr.Gr)	mm@amc.psgtech.ac.in	2006	Web Security
28.	Mr.V.Sureshkumar, M.Phil Assistant Professor (Sr.Gr)	sand@amc.psgtech.ac.in	2007	Security protocols
29.	Dr. S. Poomagal , Ph.D Assistant Professor (Sr.Gr)	spm@amc.psgtech.ac.in	2007	Web Mining
30.	Ms.S.Anandhi, M.Phil Assistant Professor (Sr.Gr)	san@amc.psgtech.ac.in	2007	Web technology
31.	Dr.C.Veeramani, Ph.D Assistant Professor (Sr.Gr)	cvm@amc.psgtech.ac.in	2008	Fuzzy optimization
32.	Ms.M.Thilaga, M.Phil Assistant Professor (Sr.Gr)	mta@amc.psgtech.ac.in	2008	Data mining, Operating systems
33.	Ms.G.Poonthalir, MCA Assistant Professor (Sr.Gr)	gpt@amc.psgtech.ac.in	2008	Data Base Management Systems
34.	Dr. M. Sasikumar, Ph.D Assistant Professor (Sr.Gr)	msa@amc.psgtech.ac.in	2011	Computer Networks, Computer Graphics, ProgrammingLanguages
35.	Ms.P.Nirmala, M.Sc. Assistant Professor (Sr.Gr)	pn@amc.psgtech.ac.in	2008	Computer networks, Data mining
36.	Dr.A.Kaja Mohideen, Ph.D Assistant Professor (Sr.Gr)	akm@amc.psgtech.ac.in	2011	Computer Graphics, C , Java, Networks
37.	Ms. S.N. Dhanabagyam, M.Phil Assistant Professor	snd@amc.psgtech.ac.in	2008	Software Engineering, Cloud Computing
38.	Ms.K.Parisa Begum, MCA Assistant Professor	kpb@amc.psgtech.ac.in	2009	Mobile computing, Web services
39.	Mr.M.Kumaresan, M.Phil, Assistant Professor	mkn@amc.psgtech.ac.in	2011	Operator Theory
40.	Ms. R. Priya, M.Sc Assistant Professor	rpr@amc.psgtech.ac.in	2011	Data Structures, Network Security

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1.	Dr.N.Rajamanickam	Ph.D	2001, Completed
2.	Dr.B.Malar	Ph.D	2007, Completed
3.	Ms.R.Latha	Ph.D	2008, Ongoing
4.	Mr.N.Mohanraj	Ph.D	2008, Ongoing
5.	Dr.M. Sasikumar	Ph.D	2008, Completed
6.	Ms. M. Megala	Ph.D	2009, Ongoing
7.	Mr.K.Mohan	Ph.D	2009, Ongoing
8.	Ms.S.D.Suganthi	Ph.D	2010, Ongoing
9.	Mr.V.Suresh Kumar	Ph.D	2010, Ongoing
10.	Ms.M.Thilaga	Ph.D	2010, Ongoing
11.	Ms.S.Anandhi	Ph.D	2011, Ongoing
12.	Ms.G.Poonthalir	Ph.D	2011, Ongoing

S.No.	Name of faculty	Programme	Year of joining & status
13.	Ms.P.Nirmala	Ph.D	2011, Ongoing
14.	Ms.G.Priyalakshmi	Ph.D.	2011, Ongoing
15.	Ms.N. Brindha	Ph.D	2011, Ongoing
16.	Ms.P.Thanalakshmi	Ph.D	2012, Ongoing
17.	Dr.A.Kaja Mohideen	Ph.D	2008, Completed
18.	Ms.S.N. Dhanabagyam	Ph.D	2012, Ongoing
19.	Ms.R.Priya	Ph.D	2012, Ongoing
20.	Mr. M. Kumaresan	Ph.D	2015, Ongoing
21.	Ms.K.Parisa Begum	Ph.D	2016, Ongoing

2.2. Conference / Workshop/ Training Programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.M.Senthil Kumar Dr.R.Nadarajan	2 nd International Conference on Computational Intelligence, Cyber Security and Computational Models (ICC3)	-	17.12.2015- 19.12.2015
2	Dr.Shina Sheen	Network Forensics – A Traffic Analysis Perspective	-	19.03.2016 - 20.03.2016
3	Mr.A.Muthusamy Dr.R.Nadarajan	6 th Indian School on Logic and its Applications –ISLA 2016	National Board of Higher Mathematics (NBHM)	21.03.2016- 26.03.2016

2.3. Conference / Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1.	Ms. M. Kasthuri Bai Ms. S. Dharani	2 nd IKDD Conference on Data Science	ACM, Bangalore	18.03.2015 21.03.2015
2.	Dr. B. Malar Ms. R.Latha	Workshop on Recent Advances in Reinforcement Learning	IIT Madras, Chennai	23.03.2015 28.03.2015
3.	Ms. K.Parisa Begum Dr. A. Kaja Mohideen	The Educational Programme highlighting Applied ipad and MAC in Teaching	GIAS, PSGCT	11.04.2015
4.	Ms. K.Parisa Begum Mr.A.Kaja Mohideen	Workshop on Creative Teaching	ETC, PSGCT	17.04.2015
5.	Mr. K. Mohan	one week ISTE STTP on Introduction to Design of Algorithms	IIT, Kharagpur	25.05.2015 30.05.2015
6.	Dr. Shina Sheen	One week hands on training in Intrusion detection in depth	Organized by Sans Institute, USA Bangalore	18.05.2015 23.05.2015
7.	Dr.R.S.Lekshmi Ms.P.Nirmala	Workshop on Biological Sciences	National University of Singapore, Singapore	20.07.2015 31.07.2015

S.No.	Name of faculty	Programme	Organizer	Period
8.	Dr. R. Vijayalakshmi	22 nd International Conference on Neural Information Processing	Organized by Asia Pacific Neural Network Assembly, Istanbul, Turkey	09.11.2015 12.11.2015
9.	Ms. P. Nirmala	Workshop on Social Networking	Organized by IIT Madras, Chennai IIT Kharagpur, IISc Bangalore	08.01.2016 09.01.2016
10.	Dr. Shina Sheen Ms. S.D. Suganthi	National workshop on Cyber Security – Threats and Vulnerability Assessment	Dept. of IT, PSGCT, Coimbatore	08.01.2016 09.01.2016
11.	Mr. K. Mohan Ms. S.Deepa Ms.S.N. Dhanabagyam	Half day workshop on The Art of Teaching Computer Programming	PSG Institute of Management	06.02.2016
12.	Mr. A.Muthusamy Dr.M. Dominic Savio Dr. M. Sasikumar	Workshop on SPSS Software	PSG Institute of Management, PSG IM Alumni Hall	12.02.2016 13.02.2016
13.	Ms. S.N. Dhanabagyam	Workshop on The Fundamentals of Data Analysis, Analytics and all that Jazz	Dept. of CSE, PSG Institute of Technology and Applied Research Neelambur, Coimbatore	12.02.2016 13.02.2016
14.	Dr. R.S.Lekshmi	Workshop on CALDAM Pre-conference School on Discrete Applied Mathematics	Organised by University of Kerala, RIFR Mumbai and Hungarian Academy of Science, Budapest Thiruvananthapuram	15.02.2016 16.02.2016
15.	Ms.G.Priyalakshmi	5 th Asian Conference on Pattern Languages of Programs	National Taipei University of Technology, Taipei, Taiwan	24.02.2016 26.02.2016

2.4. Special lecture delivered

S.No	Name of faculty	Title of programme	Topic	Organizer	Date
1.	Mr. Dominic Savio	Research Seminar	Investigations on the Design of Efficient Algorithms for Maximal Biclique Enumeration in Symmetric Context	Dept. of Applied Mathematics and Computational Sciences, PSGCT, Coimbatore	24.07.2015
2.	Dr.N.Rajamanickam		Certain Investigations on Computer Security Policies and Security Protocols		11.09.2015
3.	Dr B. Malar		Heuristic and Model Based Approaches for Binary Classification Using Isotonic Separation		01.12.2015

S.No	Name of faculty	Title of programme	Topic	Organizer	Date
4.	Dr.A.Kaja Mohideen		Mammogram Image Analysis using Novel Ant Colony Optimization Methods	Dept. of Applied Mathematics and Computational Sciences, PSGCT, Coimbatore	08.01.2016
5.	Ms. K. Parisa Begum		Assisted Living with Pervasive Computing		22.01.2016
6.	Ms. S.N. Dhanabagayam		The Art of Teaching Computer Programming -I		19.02.2016
7.	Ms. S. Deepa		The Art of Teaching Computer Programming -II		04.03.2016
8.	Mr.K.Mohan		The Art of Teaching Computer Programming -III		11.03.2016

2.5 Faculty Involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1.	Dr.R.Nadarajan	Convener	Computer Society of India, National Students Convention, Coimbatore
		Chairman	Computer Society of India, Division II Chairman
2.	Dr.R.Anitha	Expert member of the Board of Studies for Sciences and Humanities	Sri Krishna College of Engineering and Technology, Coimbatore
3.	Dr.G.Sai Sundara Krishnan	YRC Faculty Advisor	PSG College of Technology
4.	Dr.R.S.Lekshmi	Radio HUB, Faculty Advisor	PSG College of Technology

3. DEPARTMENT ACTIVITIES

3.1. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement / status	Duration	Grant in INR (Lakhs)
1.	Cognitive Modelling and Analysis Research	Dr. R. Nadarajan Dr.R.Vijaya lakshmi Ms. M. Thilaga	Cognitive Neuro Engineering Lab, Univ. of South Australia	14.11.2012 ongoing	4 years	11.4

3.3.1. Sponsored research activities – Abstract

1. Cognitive Modelling and Analysis Research

This project deals with the acquisition and analysis of Electro Encephalograph (EEG) data in order to characterize and identify cognitive state of the brain function. With the advent of advanced signal processing, computer visualization, graph pattern mining techniques, and social network analysis methods, detection and classification of EEG data enabled the emergence of new avenues of research including cognitive neuro-engineering. This research project aims to investigate computational techniques such as graph- theoretic approach in developing better understanding of the functional brain networks during normal cognitive load conditions of the brain.

The objective of this research project is four-fold.

(i) Characterising and modelling the EEG data of the functional brain network during normal and cognitive conditions into graph databases

(ii) Identifying the hidden, novel and complex neuronal patterns, clusters and trends of change in functional networks over time during these normal and cognitive conditions from the graph representation of the functional brain network and visualize these patterns to get better insights into the trend and direction of information flow using various network visualization tools, graph-pattern mining and community detection algorithms.

(iii) Identifying functional segregation (communities), functional integration (patterns of global interactions), and functional influence (impacts of individual network elements) that characterises the common cognitive process of human brain so as to establish a benchmarking data set containing the standard/common behavioural patterns of normal human brain.

(iv) Performing multi-subject analyses with the obtained knowledge to identify/classify the patterns in abnormal mental states resulting due to some mental disorders.

3.2 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
1.	Mr.N.Raja manickam	Certain Investigations on Computer Security Policies and Security Protocols	Dr.R.Nadarajan Professor & Head, Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2001 Completed
2.	Ms.B.Malar	A multilayered spam detection system using hybrid machine learning and graph structures		2007 Completed
3.	Ms.R.Latha	Data base management system		2008 Thesis Submitted
4.	Mr.N.Mohanraj	Extreme programming	Dr.A.Sankar Associate Professor Dept. of Computer Applications, PSG CT,	2008 Thesis submitted
5.	Mr. M. Sasikumar	Routing in Wireless Sensor Network	Dr.R.Anitha, Director Dept. of MCA K.S.Rangasamy College of Technology, Tiruchengode	2008 Completed
6.	Mr.A.Kaja Mohideen	Mammogram Image Analysis Using Novel Ant Colony Optimization Models	Dr.K.Thangavel Professor and Head Department of Computer Science, Periyar University, Salem	2008 Completed
7.	Mr.K.Mohan	Web Services	Dr.C.Kalaiarasan Principal, Tamilnadu College of Engg, Coimbatore	2009 Ongoing
8.	Ms.A.Kalavathy	Fuzzy topology	Dr.G.Sai Sundara Krishnan Associate Professor Dept. of Applied Mathematics and Computational Sciences PSGCT, Coimbatore	2009 Ongoing
9.	Ms.N.Vijaya	Digital topology		2009 Ongoing

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
10.	Ms. M. Megala	Web Security	Dr. G. Uma Maheswari Professor, Dept. of ECE PSGCT, Coimbatore	2009 Ongoing
11.	Ms.M.Thilaga	Graph Mining	Dr.R.Nadarajan Professor and Head Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2010 Ongoing
12.	Ms.S.D.Suganthi	Survivability and Resiliency in Wireless Sensor Networks	Dr.R.Anitha Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2010 Ongoing
13.	Mr.V.Suresh Kumar			2010 Ongoing
14.	Ms.G.Kirubavathi	Botnet Detection Mechanisms		2010 Thesis Submitted
15.	Ms.G.Priyalakshmi	Software Patterns	Dr.R.Nadarajan Professor and Head Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2011 Ongoing
16.	Ms.G.Poonthalir	Soft Computing		2011 Ongoing
17.	Ms.P.Nirmala	Data Mining		2011 Ongoing
18.	Ms.S.Anandhi	Access Control for Ubiquitous Computing	Dr.R.Anitha Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2011 Ongoing
19.	Ms.R.Bindhu	Computational Fluid Dynamics	Dr.G.Sai Sundara Krishnan Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2011 Ongoing
20.	Ms.M.Bagya lakshmi	Computational Fluid Dynamics		2011 Ongoing
21.	Ms.P.Sathyakala	Fluid Dynamics		2011 Ongoing
22.	Ms.R.Deena	Fluid Dynamics		2011 Ongoing
23.	Mr.V.Natarajan	Forensic Steganalysis Approaches to Detect Stegobot in Social Networks	Dr.R.Anitha Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2011 Completed
24.	Ms.P.Thanalakshmi	Code based Cryptosystem		2012 Ongoing
25.	Ms. N. Brindha	Multimedia Information Retrieval	Dr.P. Visalakshi Professor Dept. of ECE PSG CT, Coimbatore	2011 Ongoing

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
26.	Ms.S.N. Dhanabagyam	Data Mining	Dr.G.R. Karpagam Professor Department of Computer Science and Engineering PSG CT, Coimbatore	2012 Ongoing
27.	Ms.R.Priya	Network Security	Dr.R.Vidhya Priya Professor Department of Information Technology PSG CT, Coimbatore	2012 Ongoing
28.	Ms. J. S. Revathy	Cryptography	Dr.R.Anitha Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2014 Ongoing
29.	Ms.D. Kalpana	Queueing Theory	Dr.M.Senthil Kumar Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2014 Ongoing
30.	Ms. M. Sumathi	Epidemic Models	Dr.M.Senthil Kumar Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2014 Ongoing
31.	Ms. S.R.Saratha	Fluid Dynamics	Dr. G.Sai Sundara Krishnan Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2014 Ongoing
32.	Ms.S.Sharanya	Fuzzy Optimization	Dr. C. Veeramani Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2015 Ongoing
33.	Mr.M. Ragavan	Fuzzy Epidemic Models	Dr. C. Veeramani Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2015 Ongoing
34.	Mr.M.Kumaresan	Machine Learning Algorithms	Dr. M. Senthil Kumar Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2015 Ongoing
35.	Ms.R. Padmavathi	Epidemic Models	Dr. M. Senthil Kumar Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2015 Ongoing
36.	Ms. R. Syama	Algebraic Topology and its applications	Dr. G.Sai Sundara Krishnan Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2015 Ongoing
37.	Ms. R. Malathy	Digital Topology	Dr. G.Sai Sundara Krishnan Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2016 Ongoing

S.No.	Candidate	Short title / Area of work	Supervisor with designation / institution	Year of registration / status
			PSG CT, Coimbatore	
38.	Ms.K.Parisa Begum	Data Management in Pervasive Computing Environment	Dr.Shina Sheen Assistant Professo (SG)r Dept. of Applied Mathematics and Computational Sciences PSG CT, Coimbatore	2016 Ongoing

3.3.2. Doctoral research – Abstract

A Novel Target Control Load Balanced Active Hierarchical Protocol for Security and Fault-Free Routing in Wireless Sensor Networks

Supervisor

Dr.R.Anitha

Candidate

Mr. M. Sasikumar

Wireless Sensor Networks (WSNs) are currently employed in a variety of applications ranging from medical to military and from home to industry, increasing the demand on various fields. WSNs are deployed with hundreds or thousands of sensor nodes. Each sensor node observes physical or ecological state, such as temperature level, noise level, and pressure based on the environmental condition, in order to transmit data. The behavior of all the sensor nodes participating in network communication with adjacent nodes is handled by the central node in the WSNs. The network scalability or lifetime of the sensor nodes in WSN depends on the different energy intensity and also on dependability.

More number of sensor nodes participation in communication increases the need for energy consumption with high scalability. Hence, a novel Target control Load balanced Active Hierarchical (TLAH) protocol is proposed to balance the load on the prime nodes for enhancing the lifetime with energy consumption. In order to avoid packet redundancy and collision, the prime node aggregates the data packet with a timestamp to support better energy consumption with extended network lifetime in TLAH protocol. Besides, the energy consumed sensor network faces security threats and faults during data transmission. Hence, the proposed Resourceful and Secure Routing Protocol for Wireless Sensor Networks through Signal to Noise Ratio (SNR) based Active Hierarchical Clustering mechanism (RSRP-AHC) offers better security level with minimum energy utilization. RSRP-AHC employs Keyed-Individual Way Hash Sequence to authenticate the neighboring resources for sending and receiving data.

Moreover, the probability of fault occurrence is also high during data transmission. Current techniques obtain network lifetime and better energy consumption but still needs an extra focus on secure transmission even in the faulty network. As a result, proposed Collaborator Homed Routing (CHR) mechanism intends in supporting a successful data transmission even in the presence of faults. Above all, the proposed centralized approaches are tested in the NS-2 simulation tool to verify their respective performances. Experimental evaluations are conducted for each centralized proposed approaches and compared with the existing techniques in terms of energy consumption, network lifetime, security and fault tolerance.

Based on structural similarity computation, a Concept Hierarchy (CH) tree is constructed and used to retrieve semantically related web services. To solve the problem of top-k query, ranks are assigned to query results which are in the form of XML documents. This process involves computing structural similarity among XML documents. A mobile-local search application is

designed based on this architecture and demonstrated to show how meaningful and more relevant information can be extracted from the local data service provider as query results.

Mammogram Image Analysis Using Novel Ant Colony Optimization Models

Supervisor

Dr.K.Thangavel

Candidate

Mr. A. Kaja Mohideen

Breast cancer is currently the most common cancer among women worldwide. Mammography is the most reliable and effective screening tool for the early detection of breast cancer. Recently, computer-aided diagnosis has become a major research topic in medical imaging and has been widely applied in clinical situations. This research work investigates the employment of computer vision and image processing techniques for mammographic image analysis, focuses on the aspects of mammographic image analysis and micro calcification classification. The detection and classification of micro calcification are performed in five steps: preprocessing, contrast enhancement, segmentation, feature extraction with subset selection, and classification.

The preprocessed images are subjected to enhance their contrast. A Walking Ant Histogram Equalization (WAHE) is proposed to improve the contrast of digital mammograms. The proposed contrast enhancement method is hybridization of Histogram Equalization (HE) and a modified Ant Colony Optimization (ACO) algorithm.

Next to contrast enhancement, the suspicious regions are segmented from the breast region. The segmentation step starts with finding the edge map of the contrast enhanced image, and then the watershed transformation is applied on the edge image to find the initial segmentation boundaries for the original grayscale image. The segmented regions identified from the grayscale image are merged together based on their homogeneity using a Guided Ant Colony Algorithm (GACA) to produce final segmentation into two different clusters: normal and abnormal tissues. Only the abnormal regions are considered for further investigations.

The textural, contrast, and shape features are extracted from the segmented regions. From these feature set, most relevant features are identified by using a Leafcutter Ant Colony Optimization (LACO) which employs a novel solution construction technique while finding the optimum feature subset.

The selected textural, contrast, and shape features are normalized and fed to a three-layer Back propagation Neural Network (BPN) classifier, to classify the micro calcifications into benign or malignant. A modified ACO called, Weaver Ant Colony Optimization (WACO) based learning approach with a modified Neural Network architecture is proposed to speed up the learning phase of the BPN classifier.

Heuristic and Model Based Approaches for Binary Classification Using Isotonic Separation

Supervisor

Dr.R.Nadarajan

Candidate

Ms. B. Malar

Isotonic separation is a classification technique that separates d -dimensional data in a domain where a meaningful ordering exists not only between class labels, but also on the value set of each feature. Given a data set with n instances and d features, the basic idea behind isotonic separation is to formulate a maximum flow network, or a linear programming problem (LPP). Based on the solution obtained from any one of the above models, the d -dimensional input space is partitioned into a number of regions: an isotonic region for each class, and a non isotonic region. The unknown test data will be classified based on the region where it appears in the input space.

This thesis is devoted to the binary classification using isotonic separation. The goal of the thesis is three-fold: (1) Provide algorithms to address the issue of increasing time complexity of isotonic separation when the dataset grows. (2) Provide algorithms to address the issue of problem size

reduction in the LPP formulated in isotonic separation. (3) Provide a scheme to address the issue of feature selection

In particular, there are five major works associated with this goal. They are briefly characterized below:

Evolutionary Isotonic Separation (EIS) is a hybrid heuristic algorithm in which a genetic algorithm (GA) is embedded in the training phase of the isotonic separation. It addresses the issue of increasing time complexity in solving the large scale LPP in isotonic separation.

Meta-heuristic Isotonic Separation with a new Convergence criterion based Particle Swarm Optimization (MeHeIS-CPSO) is another hybrid heuristic algorithm to overcome the issues encountered in EIS. It is a particle swarm optimization (PSO) based isotonic separation in which an optimum convergence criterion is proposed.

Graph based Isotonic separation (Graph-IS) is a model based approach in which the given training set is formulated as a graph. A new algorithm called constrained breadth first search (Co-BFS) is proposed to traverse the vertices in the graph and assign labels to vertices.

Cascade Isotonic Separation (Cascade-IS) addresses the issue of computational complexity and problem reduction for large scale problems by proposing cascade-IS, which utilizes cascade architecture in the isotonic separation classifier for constructing a model.

Soft set Based Instance Selection algorithm and Isotonic Separation (SOFIA-IS) is a heuristic approach in which a new generalized instance selection algorithm, soft set based instance selection algorithm, shortly called as SOFIA is embedded in the training part of isotonic separation. The main advantage of this method is that it is suitable for small, medium, and large datasets.

Certain Investigations on Computer Security Policies and Security Protocols

Supervisor

Dr.R.Nadarajan

Candidate

Mr.N.Rajamanickam

Computer security is the process of preventing and detecting unauthorized use of computer. Computer security is concerned with three main areas: Confidentiality, Integrity, Availability. Computer security policy and security protocols help us to detect and prevent unauthorized use of computer. Security automaton is a non deterministic automaton for enforcement of safety policies. Security automaton moves from one state to another state according to the input actions, and halts the system when it finds violation of security policy. Edit automaton accepts input actions sequence and produces output action sequence. Objectives of the research work include verification of given security policy to check whether it produces acceptable sequence of actions, creation of a tool for implementing transactional security policy using filter automata, verification of given access control policy with obligation to check its action and obligation sequence, implementation of real time transactional security policy using timed edit automata for two gateway payment, and ation of two gateway payment protocol.

Forensic Steganalysis Approaches to Detect Stegobot in Social Networks

Supervisor

Dr.R.Anitha

Candidate

Mr.V. Natarajan

In recent years, Online Social Network(OSN) is a popular and efficient medium to facilitate a high degree of user personalization and user intercommunication. The enormous growth of OSN has also resulted in an increase of significant criminal activities including identity theft, piracy, illegal trading, cyber stalking and cyberterrorism. Cyber criminals are becoming increasingly sophisticated in attempting to use social networking based technology in order to evade detection and perform criminal acts. This happens in virtual environment using social network as a communication medium and it gives fraudsters an increased chance of attacking systems. A newly proposed social network threat, called Stegobot, masks a crucial information in a digital image by using a technique known as

steganography. Stegobot works by hiding malicious codes inside any image, uploads it into infected users profile and then waits for the new users profile and then waits for the new user to look at the infected user profile. In this way, the new user is also infected and sensitive information related to the user can be stolen easily by the botmaster. The major challenge with most of the existing techniques is detection of socialbots using single view features. Since Stegobot profiles in OSN look like genuine profile, these approaches cannot detect new kind of bots. Due to these difficulties, it would be desirable to develop additional methodologies to overcome these issues. The third contribution of this research work regards detection of Stegobot in social network environment. Approaches to the steganalysis problem depend heavily on the steganographic security model, and particularly on the steganalyst's knowledge about the cover source and the behavior of opponent. The most studied steganalysis models are quite far from detection of Stegobot communication channel, and it is clear that state of the art steganalysis could not yet be used effectively in the detection of Stegobot. Due to these difficulties, it would be desirable to develop additional methodologies to overcome these issues. In this research work, we propose an effective method to detect Stegobot hosts within a monitored social network. Based on the observations, Stegobot often has a differentiable communication pattern because of the unique design and implementation. Hence by investigating each host profile activity, it is possible to determine whether the profile is a Stegobot or normal. We apply the proposed method on four popular social networking sites Facebook, Flickr, Twitter and Google+. In this work, behavior of social profiles are analyzed and Stegobot propagation is modeled by epidemic models. The proposed epidemic model could be extended to study the growth of Stegobots in large scale OSNs. Such investigations could ultimately be useful to network security researchers as well. In future, large scale infiltration in OSNs is a major cyber threat and defending against such threats is a challenge. This would be the first step towards maintaining a secure and safer multimedia social network for millions of users.

3.4. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1.	Department Library	430	-	-	-	-	-
2.	GRD Library – B.Sc (CSD, IS) M.Sc.(Software Systems) M.Sc.(Theoretical Computer Science) M.Sc (Applied Mathematics) M.Sc (CSD)	31 39 4	1894	2393	20	35	

3.5. Research publications

3.5.1. Papers published in international journals

1. R.Vijayalakshmi, D. Nandagopal, N. Dasari, B. Cocks, N. Dahal, M. Thilaga, "Minimum Connected Component - A Novel Approach to Detection of Cognitive Load Induced Changes in Functional Brain Networks", *Neurocomputing, Elsevier*, July, 2015 .
2. M. Thilaga, R. Vijayalakshmi, R. Nadarajan, D. Nandagopal, Bernie Cocks, C. Archana,, Nabaraj Dahal, "A Heuristic Branch-and-Bound Based Thresholding Algorithm for Unveiling Cognitive Activity from EEG Data, *Neurocomputing, Elsevier*, July 2015.
3. V.Suresh Kumar, R.Anitha and Ms. S. Anandhi " Analysis of Accountability Property in Payment Systems Using Strand Space Model", *Springer International Publishing Switzerland CCIS 536*, pp. 1–14, , August 2015.

4. Shovon, M. H. I., Nandagopal, D. N., Du, J. T., Vijayalakshmi, R., & Cocks, B, "Cognitive Activity during Web Search" In *Proceedings of the 38th ACM International Conference on Research and Development in Information Retrieval (ACM SIGIR 2015)*. New York: ACM., ISBN: 978-1-4503-362 August 2015.
5. P.Thanalakshmi and R. Anitha "A Graph – Based Chameleon Signature Scheme", *Proceedings of 3rd International Conference on Advanced Computing, Networking and Informatics, Smart Innovation, Systems and Technologie*, Volume No 2, PP No 327 – 335 ISSN 2190-3018,ISBN 978-81-322-2528-7. Springer, September 2015
6. Shina Sheen and R. Anitha, "Malware Detection in Android files based on Multiple levels of Learning and Diverse Data Sources", *WCI'15, ACM ,Conference*, ISBN: 978-1-4503-3361-0 , August 2015
7. P.Nirmala and R.S.Lekshmi "Vertex cover-based binary tree algorithm to detect all maximum common induced subgraphs in large communication networks" *International Journal of Knowledge and Information Systems, Springer-Verlag*, August, 2015
8. Naga M. Dasari, D (Nanda) Nandagopal, Vijayalakshmi R, Bernadine Cocks, Bruce H. Thomas, Nabaraj Dahal and Paul Gaertner, "Moment to moment Functional Brain Network variability during cognitive activity in EEG", *Journal of Integrative Neuroscience, Imperial College Press*, Vol. 14, No. 03, ISSN: 0219-6352, pp. 383-402 2015
9. S.N.Dhanabagayam, "A framework for Identity and Access Management In HealthCare Cloud", *International Journal of Applied Engineering Research (IJAER)*,ISSN 0973-4562 Volume 10, Number 13.33018-33024, Research India Publication, September, 2015
10. M.Megalaand G. Umamaheswari "Comprehensive Analysis of Classifiers to Detect Cross-site Scripting (XSS) Attacks in Web Pages", *International Journal of Applied Engineering Research (IJAER)*, ISSN 0973-4562 Volume 10, Number 16. 36629-36633, Research India Publication, October, 2015
11. G. Uma Vetri Selvi and R.Nadarajan, " A Rapid Compression Technique for 4 – D Functional MRI Images Using Data Rearrangement and Modified Binary Array Techniques", *International Journal of Australasian Physical & Engineering Sciences in Medicine*, pp no 1-5, October 2015.
12. Vijayalakshmi R, D. Nandagopal, M.Thilaga, Bernie, Cocks, Characterisation of Cognitive Activity Using Minimum Connected Component", *Neural Information Processing – Lecture Notes in Computer Science* Volume 9492, pp. 531-539, ISBN: 978-3-642-34477-0, Springer International Publishing November, 2015
13. Shovon, M. H. I., Nandagopal, D. N., Vijayalakshmi R, Du, J. T., & Cocks, B., "Directed Connectivity Analysis of Functional Brain Networks during Cognitive Activity using Transfer Entropy", *Neural Processing Letters*, ISSN: 1370-4621, Springer, pp. 1-18, 2015.

3.5.2. Papers presented in international conferences

1. R.Latha and R.Nadarajan, " Ranking Based Approach for Noise Handling in Recommender Systems", *8th International Conference on Multimedia Communications, Services and Security*, MCSS 2015, CCIS, Springer, CCIS 566, pp No 46 – 58, November 2015.
2. Vijayalakshmi R, D Nandagopal, M. Thilaga, Bernie Cocks, "Characterisation of Cognitive Activity Using Minimum Connected Component", *22nd International Conference on Neural Information Processing – ICONIP 2015*, Istanbul, Turkey, pp. 531-539, 09-12 Nov 2015.
3. R.Latha and R.Nadarajan, " User Similarity Adjustment for Improving Accuracy and Diversity in Recommendations", *3rd International Conference on Mining Intelligence and Knowledge Exploration, MIKE 2015*, Springer, LNAI 9468, pp No 515 – 525, December, 2015
4. Venkatasamy Suresh Kumar, R. Anitha and N. Rajamanickam "Hash based two gateway payment protocol ensuring accountability with dynamic ID verifier for digital goods providers", *Proceedings of ICC3, Vol.412 of Advances in Intelligent systems and computing* , Springer, pp.369-383, December, 2015.
5. V. Senthil Kumaran and RM. Periakaruppan, "Formulation and Enhancement of User Adaptive Access to the Learning Resources in E-Learning Using Fuzzy Inference Engine", *Proceedings of ICC3, Computational Intelligence, Cyber Security and Computational Models*, PP. No 311 – 322, December 2015, Springer 2016.

3.6. Visits abroad

3.6.1. Visits by faculty

S.No.	Name of faculty	Place of visit	Period	Purpose
1.	Dr.M.Senthil Kumar	Gwangju Institute of Science and Technology, South Korea,	25.05.2015-25.06.2015	Visiting Professor -to Collaborate research in GIST South Korea
2.	Dr.R.Vijayalakshmi	Istanbul, Turkey	09.11.2015-12.11.2015	Paper Presentation on 22 nd International Conference on Neural Information Processing – 2015
3.	Ms. G. Priyalakshmi	National Taipei University of Technology, , Taiwan	22.02.2016-26.02.2016	Paper Presentation on 5 th Asian Conference on Pattern Languages of Programs, Organized by National Taipei University of Technology, Taiwan - 2016

3.7 Board of studies

S.No.	Date	Agenda	External experts
1	02.04.2016	<ul style="list-style-type: none"> • Introduction of new electives • Identify the skills that are necessary for the students to meet the requirements of industry and electives/one credit courses ,if necessary to effect the same 	<p>Academic experts (External)</p> <p>Dr. P.Latha, Associate Professor and Head, Department of Computer Science and Engineering, GCT,Tirunelveli</p> <p>Dr.S.R.Balasundaram, Associate Professor, Department of Computer Science,NIT,Tiruchirappalli</p> <p>Dr.N.N. Murulidhar Professor and HoD Department of Mathematical and Computer Sciences NIT, Surathkal</p> <p>Industry Experts</p> <p>Mr.Rangan Devarajan, Director-Solution Delivery, Technotreeee,Bangalore</p> <p>Ms. S.Pregna Associate Sr.Manager Amazon,Bengaluru Software Development (I) Pvt.Ltd , HSR Layout, Bangalore</p>

4. STUDENT ACTIVITIES

4.1. Student strength

S.No.	Class	No. of students
1.	I year M.Sc (Software Systems)	40
2.	II year M.Sc (Software Systems)	40
3.	IV year M.Sc (Software Engineering)	40
4.	V year M.Sc (Software Engineering)	40
5.	I Year M.Sc (Theoretical Computer Science)	40
6.	II Year M.Sc (Theoretical Computer Science)	--
7.	IV year M.Sc (Theoretical Computer Science)	29
8.	V year M.Sc (Theoretical Computer Science)	30
9.	I Year M.Sc (Applied Mathematics)	8
10.	II year M.Sc (Applied Mathematics)	13
11.	II Year M.Sc (Computer Systems and Design)	23
12.	I Year B.Sc (CSD)	55
13.	II Year B.Sc (CSD)	59
14.	II year B.Sc (IS)	59

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Login 2015 (Inauguration)	Mr. Vijayshankar Athmalingam Senior Director, CTS, Coimbatore	450	26.09.2015
2.	Login 2015 (Valedictory)	Mr. Suresh Shanmugam, Business Solutions Manager, Payoda Technologies,Coimbatore	450	27.09.2015

4.3. Co-curricular and extra-curricular activities

S.No.	Nature of activity	No. of students	No. of awards
1.	Quiz	22	14
2.	Football	6	-
3.	Singing	12	-
3.	Shuttle Badminton	2	2
4.	Mathemagic	4	2
5.	Paper presentation	3	1
6.	Code pairing	26	8
7.	C Rackers-C debugging	22	5
8.	Online Net Hunt	6	1
9.	DumbC	10	2
10.	Treasure Hunt	9	2
11.	Marketing	7	5
12.	Programming	30	9
13.	Mini Marathon (district level)	4	4
14.	Coding	52	18
15.	Basketball	3	1
16.	Adzap	6	-

S.No.	Nature of activity	No. of students	No. of awards
17.	Inter Cultural Dance Meet	8	2
18.	Web Designing	1	--
19.	Cricket	19	2
20.	Drawing & Painting	3	1
21.	B – Certificate Holders in NCC	2	2
22.	Gaming	10	03
23.	Juggling	1	1
24.	Science event	1	1
25.	Pencil Sketching	2	2
26.	NSS	2	2
27.	Throwball	1	1
28.	Kho-Kho	1	1
29.	Crickfest	1	1
30.	Kriya	4	3
31.	Thiran	14	2
32.	Tech Music	3	1
33.	Cycling	1	1
34.	Radio Hub	2	--
35.	Manifest	2	2
36.	Invadurz	8	2
37.	Yagam	6	1
38.	ENEXT	1	1

4.4 Awards won by students

S.No.	Name of student	Roll No.	Event	Award	Awarded by	Date
1.	Ms. S. Radhika Ms.M. Aiswarya Mr. B. Ramprasath Ms. V. S. Meera	14PA08 14PX01 11PW25 11PT28	Academic	Best out going Student	Tech Day Tech Day	14.03.2016
3.	Ms. B. Abirami Ms. R. Monika Ms. Shruthi V. A Mr. R. Sabhareesh	14PA01 14PX10 11PW32 11PT21	Academic	Best out going Student	Alumni Association	07.03.2016

4.5 Final year project work

4.5.1 PG Project

M.Sc . Software Engineering VII Semester

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
1.	12PW02	Adithya K	UI Development Accelerator Framework	Dr. N. Geetha	KLA Tencor, Chennai
2.	12PW03	Akshaya J	AWS Monitoring in Site 24 x 7	Mr.N.Raja manickam	Zoho Corporation Chennai
3.	12PW04	Anita Subasni P	Skava Next Integration for Online – Retailers	Mr.K. Mohan	Skava Systems Coimbatore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
4.	12PW05	B. Anusha	Monitoring and Querying tool and OTP Generation System	Ms.G.Priya lakshmi	Solution Star Chennai
5.	12PW06	Aparna C	Application of DOM for Android Phones	Ms.G. Poonthalir	Smartron Bangalore
6.	12PW07	Deepika N	Sales Force Gamification	Dr. Shina Sheen	Divum Bangalore
7.	12PW08	Dhanasree R	Shopnow Merchant and Shopnow Logistics	Dr.N. Ilayaraja	Divum Bangalore
8.	12PW09	Dhivyaa Naraayani D.N	Technological Enablement for Marketing and Sales Operationalization	Dr.V.Senthil Kumaran	Bridgei2i Bangalore
9.	12PW10	Gayathri B	Forecast Volume Integration HUB	Dr. R. Nadarajan	Thorogood Associates Bangalore
10.	12PW11	Gayathri K	Compliance Evaluation and Validation of Video Annotation Framework	Mr.A.Kaja Mohideen	Robert Bosch Bangalore
11.	12PW12	Hari Jay Ram M	Sales Decision Engine	Ms. B. Malar	Bridgei2i Bangalore
12.	12PW13	Hari Prasanth A C	Mooshak	Dr.R.Vijaya lakshmi	Wow Labz Bangalore
13.	12PW14	Haseena Fathima S	Merchandise Visibility Handheld Enhancements Dynamic Language Switch	Ms.S.D. Suganthi	OAT Systems Bangalore
14.	12PW15	Keerthana K	Agentdesks – Mobile Based CRM for Real Estate Agents	Mr. A. S. Syed Nazir Ahmed	Agentdesks Bangalore
15.	12PW16	Keerthanaa R	rAMP(RFID Asset Management Platform	Ms. S.D. Suganthi	OAT Systems Bangalore
16.	12PW17	Kowshika Devi K	Next Generation Prototype for Defective Classification	Dr. Suresh Balusamy	KLA Tencor Chennai
17.	12PW18	Laharika Smrti	Payer Portal Intelligence	Ms. M.Thilaga	Athena Health Chennai
18.	12PW19	Lokesh Murugan M C	Manageability Tools for RFC Management Product at Intel Factories	Dr.M.Dominic Savio	Intel Bangalore
19.	12PW20	Mala Gupta	Distributed Map Reduce Framework for Data Processing and Global DBH Tracker	Ms.R.Latha	Athena Health Chennai
20.	12PW21	Nivedha T P	Mobile Application For Telecomm	Ms. K. Parisa Begum	Akira Bangalore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
21.	12PW22	Prabu Raj K	Unified Storage Manager	Dr.V.Senthil Kumaran	Redhat Bangalore
22.	12PW23	Pragathi P	ExTrack	Ms.B.Malar	Bridgei2i Bangalore
23.	12PW24	Prajitha K	Cloud Network Configuration and Management Using Intel CPU Based Servers	Dr. Suresh Balusamy	Intel Bangalore
24.	12PW25	Priyanka B	Skava Next Integration for Online – Retailers	Ms. P. Nirmala	Skava Systems Pvt Ltd Coimbatore
25.	12PW26	Rajshree D	Android Application Development for ASKME Deals	Dr.N. Ilayaraja	Divum Bangalore
26.	12PW27	Ramadhevi RK	Project Clay	Mr. N. Mohanraj	KovanLabs Coimbatore
27.	12PW28	Ramanathan P	License Recycling System	Dr.R.Nadarajan	Goldman Sachs Bangalore
28.	12PW29	Sabari priyanka T	MIS Reports for Smart Device Management	Ms. M Kasthuri Bai	Smartron Bangalore
29.	12PW30	Samyuktha J	SQA Automation	Ms. S. Anandhi	Skava systems Pvt Ltd Coimbatore
30.	12PW31	Saraswathy P	Automated Deployment and Three Dimensional Filter Statistics	Dr.N.Raja manickam	Solution Star Chennai
31.	12PW32	Saroja A	Workflow Re Engineering for NOC Operations	Ms. M. Megala	Skava Systems Pvt Ltd Coimbatore
32.	12PW33	Sharanya R	Logical Queues	Mr. A.S.Syed Nazir Ahmed	Intel Corporation Bangalore
33.	12PW35	Smriti C	Network Traffic and Forensic Analysis in Site24X7	Dr. Shina Sheen	Zoho Corporation Chennai
34.	12PW36	G. R. Srihare	KTInspector Validation Optimization	Dr.N.Geetha	KLA Tencor Chennai
35.	12PW37	Sureca M	Insurance Search Automation	Mr. N. Mohanraj	Athena Health Chennai
36.	12PW38	Tamil Maran	Defect Detection and Analysis	Ms. R. Latha	KLA Tencor Chennai
37.	12PW39	Thikshasree H	AHI Metrics Portal for Performing Defect Analysis, Prevention and	Ms. G. Priyalakshmi	AthenaHealth Chennai

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
			Management and Weblogs		
38.	12PW40	Yazhini L	Unified Storage Manager	Dr.R.Vijaya lakshmi	Redhat Bangalore

M.Sc. Theoretical Computer Science VII Semester

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
1	12PT01	Ajay Kumar N	Graph Partitioning	Dr.R.S.Lekshmi	Institute of Mathematical Sciences,
2	12PT02	Akshayan V	Forecast Volume Integration Hub	Dr.N.Geetha	Thorogood Associates, Bangalore
3	12PT03	Anish V	Motion Planning	Dr.R.Anitha	Institute of Mathematical Sciences, Chennai
4	12PT04	Aravind P	Power Events Test Automation and Memory Leak Detection	Mr. A. Kaja Mohideen	Intel, Bangalore
5	12PT05	Arthi S	Simulation of USB 2.0 Device Controller on Bluespec	Dr.Suresh Balusamy	IIT Madras, Chennai
6	12PT06	Ashiq Mohamed Jawahar	Forecast Volume Integration HUB	Dr.R.Vijaya lakshmi	Thorogood Associates, Bangalore
7	12PT07	Ashwanthi R	Cybernation of Infra Operations	Dr. V.Senthil Kumaran	Skava Systems Coimbatore
8	12PT08	Ashwin Surana	Loan Regulatory Capital Calculator and Cross Product optimization	Ms. R. Latha	Goldman Sachs Bangalore
9	12PT09	Balakirupa S	Automated Test Suite and Debug Trace Tool	Dr.N.Raja manickam	Intel Technologies Bangalore
10	12PT10	Gayatri Anita Nair	Sanctions Screening in Elasticsearch and Surveillance Using Avro – Twill	Dr.Shina Sheen	Goldman Sachs Bangalore
11	12PT11	Hari Priya A. M	Simulation of Universal Serial Bus 2.0 Device Controller on Bluespec	Dr.Suresh Balusamy	IIT Madras, Chennai
12	12PT12	Hema Parthasarathy	Forecasting and Anomaly Detection for Time Series Data	Dr.R.Nadarajan	Nalco, An Ecolab Company

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
13	12PT13	Janani R	Silvan Home Automation iOS Application	Dr. N. Ilayaraja	Divum Corporate Services Pvt. Ltd. Bangalore
14	12PT14	Jayashree G	Forecasting System for a Consumer Product Goods (CPG) Company	Dr.RM. Periakaruppan	Thorogood Associates, Bangalore
15	12PT15	Karthika J P	Connect Finance	Dr.V.Senthil Kumaran	
16	12PT16	Kavipriya C U	Text Mining and Association Rules Using R	Dr.R.Nadarajan	Nalco, An Ecolab Company
17	12PT17	Keerthana D	Automatic Task Generation Based on Cycle Count	Ms. S.D.Suganthi	OAT Systems, Bangalore
18	12PT18	Manasi K S	Channel Reporting System	Dr. N. Ilayaraja	Thorogood Associates, Bangalore
19	12PT19	Manikanta Gowtham Maddi	Dynamics of MEME Propagation in Multiplex Networks	Dr.M. Senthil Kumar	Gwangju Institute of Science and Technology, Gwangju
20	12PT20	Mano Bharathi J	Customer Experience Tracking Using Topic Modeling	Ms. B. Malar	BRIDGE I2I Analytics Solutions Pvt. Ltd., Bangalore
21	12PT21	Palanikumar Vani	Motion Planning	Dr.R.Anitha	Institute of Mathematical Sciences, Chennai
22	12PT22	Prasanna J	Advanced Text Mining Algorithms	Ms. B.Malar	BRIDGE I2I Analytics Solutions Pvt. Ltd., Bangalore
23	12PT23	Rajeswari S	Indoor Scene Categorization and Video Classification	Dr.N.Geetha	IIIT – B, Bangalore
24	12PT24	Ravi Shankar V	Display Driver Sequence Validation	Mr. N. Mohanraj	Intel Technologies Bangalore
25	12PT25	Rishab R Bafna	Nextgen Desktop and App-Rover	Dr. Shina Sheen	Goldman Sachs Bangalore
26	12PT26	Sowmya R	Chalkstreet Service Improvement	Dr. R. Vijaya lakshmi	Chalkstudio Bangalore
27	12PT27	Sudhir S	Intelligent Code Coverage Analysis and Reporting Tool	Mr. A.S. Syed Nazir Ahmed	KLA Tencor, Chennai

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
28	12PT28	Thiruvignesh D	Software Configuration Management and Build Automation	Ms. S. D. Suganthi	OAT Systems Bangalore
29	12PT29	Vaishali	Executive Dashboards	Dr.RM.Peria karuppan	Thorogood Associates, Bangalore
30	12PT30	Venkatesh M	Automated Unit Testing of Intel ^R Graphics Control Panel	Mr. A. S. Syed Nazir Ahmed	Intel Technologies Bangalore

M.Sc. Software Engineering X Semester

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
1	11PW01	Abinaya S	FFA-Field Force Automation	Dr.N.Raja manickam	Blick360 Solutions Chennai
2	11PW02	Abinaya S	Hybrid Application with Distributed NOSQL Framework for iOS	Dr.Suresh Balusamy	OAT Systems Bangalore
3	11PW03	Abishek R S	Integrated Micro Segmentation and Bloggerd for Nexus 1000V	Dr. Shina Sheen	Cisco Bangalore
4	11PW04	Amritha M	Alaska's Resource for Integrated Eligibility Services (ARIES)	Ms. S. Anandhi	Deloitte Bangalore
5	11PW05	Amritha R	Rfid Handheld Simulator for Merchandise Visibility Solution	Dr.S.Poomagal	Oat Systems Bangalore
6	11PW06	P. Aravindh Vasanth Ram	Sales Management System	Dr.N.Ilayaraja	Akira Bangalore
7	11PW07	Arun Prasadh P M	Transportation Aggregation Platform	Dr.M.Dominic Savio	Ryder (Dhil System) Bangalore
8	11PW08	Avinesh Ram A H	Operational Risk Data Collection Dashboard	Dr.R. Vijaya lakshmi	Goldman Sachs Bangalore
9	11PW09	Bala Subramanian N	KanbanFlow K++ & PatientDoc	Mr.A.S.Syed Nazir Ahmed	Wow Labz Chennai
10	11PW10	Gayathiri D	Building and Integrating of Margin Calculators	Dr.N.Raja manickam	Goldman Sachs Bangalore
11	11PW11	D. Hemalatha	Digital Signature Solution	Dr.V.Senthil Kumaran	Zoho Corporation Chennai
12	11PW12	Ishwarya G	Finance Dashboards for a CPG Company	Dr.R.Nadarajan	Thorogood Associates, Bangalore
13	11PW13	Jeffry Copps R	Location Based Log Monitoring System	Dr.Suresh Balusamy	Commvault Chennai
14	11PW14	Karthick V	UAT Automation Framework	Mr.N.Mohanraj	Goldman Sachs Bangalore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
15	11PW15	Karthick C	Automation framework to Validate Battery Functionalities	Ms.G. Poonthalir	Intel Bangalore
16	11PW16	Krithika K S	Manual Image Segmentation & Matchapp Integration	Ms.G.Priya lakshmi	KLA Tencor Chennai
17	11PW17	Lakshmi Priya G	Inter Fab Recipe Synchronization	Ms. M. Kasthuri Bai	KLA Tencor Chennai
18	11PW18	Mano bharathi S	Tax Knowledge Portal and Data Quality Tool	Ms. M. Thilaga	E & Y Bangalore
19	11PW19	Nirupamaa Jaya AR	Quality Analysis for Mobile APPS	Ms. K. Parisa Begum	Divum Corporates Bangalore
20	11PW20	Poojya A	Health MonitoringSystem for Carding Machines	Mr.A.S.Syed Nazir Ahmed	LMW Coimbatore
21	11PW21	Preethi K	Tax Knowledge Portal and Data Quality Tool	Ms. P. Nirmala	E & Y Bangalore
22	11PW22	Prenitha L	Integrated I/O Validation	Dr. V. Senthil Kumaran	Intel Bangalore
23	11PW23	Preyes M	Packet Forwarding Engine Programming And Packet InjectionTool	Dr.N.Ilayaraja	Juniper Networks Bangalore
24	11PW24	Rabiya Basariya A	Centralized Audit Requests and Response System	Dr.N.Geetha	Goldman Sachs Bangalore
25	11PW25	Ramprasath B	Email Distribution List Management Via Technology Portal	Dr.R.Nadarajan	Goldman Sachs Bangalore
26	11PW26	Saloni Agarwal	Integrated Eligibility System	Ms.R.Latha	Deloitte Bangalore
27	11PW27	Sangavi D	Closure of ST-PRs of the RLLs and Junos – Order – PR – Inventory – Status	Ms. S.D. Suganthi	Juniper Networks Bangalore
28	11PW29	Shakthi K	Quick Distributed Defect Tracking System Advanced & Connected CX and Quality Insights (QDDTS + & CQI)	Dr. Shina Sheen	Cisco Bangalore
29	11PW30	Sharmadha S	Performance Evaluation of Titan Graph Database for Metadata Modeling	Dr.N.Geetha	Horton Works Chennai
30	11PW31	Shiney J	Editable Power Point Presentation	Dr.B.Malar	Thorogood Associates, Bangalore
31	11PW32	Shruthi V A	Service Provider Portal	Ms.S.D. Suganthi	Cisco Bangalore
32	11PW33	Sowmea Shree M	Context Aware Framework	Dr.RM.Peria karuppan	Infosys Expert Training Bangalore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
33	11PW34	Sruthi K	Intelligent Review Application	Ms. M. Megala	Blick 360 Solutions Chennai
34	11PW35	Sujitha S	Cloudbridge Automated IPFIX Appflow and Netflow Framework	Dr.RM.Peria karuppan	Citrix R & D Bangalore
35	11PW36	Sukanya S	Recruitx and Freewheelers – Enhancement of an E Commerce Website	Dr.R.Vijaya lakshmi	Thought Works Bangalore
36	11PW37	Supraja N	Akira Database Management System	Dr.A. Kaja Mohideen	Akira Chennai
37	11PW38	Thirukka Karnan S	Editable Detail Page for Softlines Recommendations	Ms. R.Latha	Amazon Bangalore
38	11PW39	Udhaya ragini N	Application Management Services	Mr.N.Mohanraj	Deloitte Bangalore
39	11PW40	Vignesh Kumar B	Social Media Monitoring and Analysis	Ms. N. Brindha	E & Y Bangalore
40	11PW41	Nethra R	Sales Decision Engine	Dr.B.Malar	BRIDGE I2I Analytics Solutions Pvt.Ltd., Bangalore

M.Sc Theoretical Computer Science X Semester

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
1	11PT01	Abiraami A N	Cloudbridge Virtual Wan-Use Cases Automation	Ms.S.D.Suganthi	Citrix, Chennai
2	11PT02	Aishwarya Easwar	One Attune Application	Dr.A.Kaja Mohideen	Attune Technologies Bangalore
3	11PT03	Aishwarya Mohan	Product Retail and Finance Information Management System	Dr.B. Malar	Thorogoods Bangalore
4	11PT04	Arivoli Ritu N	Image Installation Tool and LoginLocator	Dr.N.Ilayaraja	Goldman Sachs Bangalore
5	11PT05	Ashok V R	Medibuddy	Dr.N.Ilayaraja	Divum Corporates Chennai
6	11PT06	Aswin Karthik P	Analytics in Customer Retention and Sales Effectiveness	Dr.B.Malar	Bridge i2i Bangalore
7	11PT07	Bhuvana Sai B	Fraud Detection System in Cloud Based Billing and Payment Platform	Dr.Shina Sheen	Chargebee Chennai

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
8	11PT08	Cibe Sridharan K	OATMOBILE SDK	Dr. N.Raja manickam	Oat Systems Bangalore
9	11PT09	Deepu Abilash R	Reliable Data Communication in Wireless Sensor Networks	Dr. M. Senthil Kumar	NALCO Bangalore
10	11PT10	Dharani Priyanka S	ASMS Utility Stability and Performance Monitoring	Dr. V. Senthil Kumaran	KLA Tencor Chennai
11	11PT11	Harish G	SAPIENCE	Dr. M.Peria karuppan	Amazon Bangalore
12	11PT12	Mahalakshmi M	Fine-Grained Action Recognition Using Pose and Image Patches	Dr. N.Geetha	Intel Bangalore
13	11PT13	Mahendren S	Tableau Jabber Integration	Ms. R. Latha	Cisco Bangalore
14	11PT15	Nagarajan S	Couchbase as a Datastore	Dr. N. Raja manickam	eBay Bangalore
15	11PT16	Neethu S	Plan Predictor for Smart Phone	Ms. K. Parisa Begam	Akira Chennai
16	11PT17	Nithyanantham G	Tac Archive System and Myntra Games	Dr.R.Vijaya lakshmi	Myntra Bangalore
17	11PT18	Nithya D	Application of Linear Regression in Wireless Sensor Network	Dr.M.Senthil Kumar	NALCO Bangalore
18	11PT19	Rashmi Rao	Platform Health Monitoring	Mr.A.S. Syed Nazir Ahmed	Cisco Bangalore
19	11PT20	Guruprasanna S	Mac Outlook Extensibility	Mr.N.Mohanraj	Microsoft Bangalore
20	11PT21	Sabhareesh R	Results Manager Server 2.0	Ms.G.Priya lakshmi	KLA Tencor Chennai
21	11PT22	Sai Ganesh K	Android Mobile Application	Ms.K.Parisa Begum	Divum Corporates Bangalore
22	11PT23	Sameeraja K L	North America Point of Sales	Mr.A.S.Syed Nazir Ahmed	Thorogoods Bangalore
23	11PT24	Sandeep K	Smart Performance	Dr.A.Kaja Mohideen	IBM Labs Bangalore
24	11PT25	Santhosh Kumar R	Parallelization of Symmetric Gauss – Seidel Algorithm	Dr.Suresh Balusamy	MulticoreWare Chennai
25	11PT26	Sharmila V	Data Cleansing for Consumer goods Industry	Dr.R.Vijaya lakshmi	E&Y Chennai
26	11PT27	Sreeram Mohan V	Secure Home Gateway	Dr.R.Anitha	Intel Bangalore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
27	11PT28	Meera V S	UGC Community Dashboard	Dr.R.Nadarajan	Myntra Chennai
28	11PT29	Varshini M	Melorra Online Shopping Site	Ms. M. Thilaga	Divum Corporates Bangalore
29	11PT30	Vinothini M	O Auth 2.0	Ms.S.Anandhi	Chargebee Chennai

M.Sc. Applied Mathematics IV Semester

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry associated
1	14PA01	Abirami B	Probabilistic Assessment of Knowledge	Dr.V.Senthil Kumaran	EDP, PSGCT Coimbatore
2	14PA02	Abirami V	Digital Dashboard	Dr.C.Veeramani	Gain Theory Bangalore
3	14PA03	Aishwarya S	Diagnostics Information System	Dr.RM.Peria karuppan	PSG IMSR Coimbatore
4	14PA04	Aswathi Jayaraam	Modeling Droplet Microfluidic Devices	Dr.M.Senthil kumar	IIT Madras Chennai
5	14PA05	Harini R	Edge Compression in Hypercubes	Dr.R.S.Lekshmi	-
6	14PA06	Keerthana D	Central Stores and Purchase Order System	Dr. V. Senthil Kumaran	PSG IMSR Coimbatore
7	14PA07	Nandhini K	Integrated Financial Management System	Mr.A.S.Syed Nazir Ahmed	EDP. PSGCT Coimbatore
8	14PA08	Radhika S	Multi Dimensional Exposure	Dr.RM.Peria karuppan	Oracle Bangalore
9	14PA09	P. Renushree	Student Information System	Ms. K. Paisa Begum	PSG IMSR Coimbatore
10	14PA10	Revathi S	Similarity Measures on Intuitionist Fuzzy Soft Set and its Application	Dr.G.Sai Sundara Krishnan	-
11	14PA11	Sangeetha A	Applications of Multi Objective Optimization Techniques in Radio Resource Scheduling	Dr.C.Veeramani	-
12	14PA12	Vasanthi M	Vehicle Routing Problem with Multiple Ware Houses and Fuel Considerations- A Study	Ms.G.Poonthalir	-
13	14PA13	Vinith Priya R K	Edge Compression of Kekule Valence Structures in Buckminsterfullerene(C ₆₀)	Dr.RS.Lekshmi	-

4.6. Placement

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
1.	OAT Systems, Bangalore	3	11PW02	Abinaya S	7.52
			11PW05	Amritha M	7.52
			11PT08	Cibe Sridharan K	7.52
2.	Blick 360 Solutions, Chennai	2	11PW01	Abinaya S	6.5
			11PW34	Sruthi K	6.5
3.	Cisco Systems, Bangalore	5	11PW03	Abishek R.S	13.5
			11PW29	Shakthi K	13.5
			11PW32	Shruthi V.A	13.5
			11PT13	Mahendran S	13.5
			11PT19	Rashmi Rao	13.5
4.	Deloitte, Chennai	3	11PW04	Amritha M	5.35
			11PW39	Udhayaragini N	5.35
			11PW26	Saloni Agarwal	5.35
5.	Musigma, Bangalore	1	11PW06	Aravindh Vasanth Ram P	4.5
6.	Ryder, Bangalore	1	11PW07	Arun Prasadh P.M	6.5
7.	Goldman Sachs, Bangalore	6	11PW08	Avinesh Ram A.H	13.0
			11PW10	Gayathiri D	13.0
			11PW14	Karthick V	13.0
			11PW24	Rabiya Basariya A	13.0
			11PW25	Ramprasath B	13.0
			11PT04	Arivolli Ritu N	13.0
8.	Wow Labz, Bangalore	1	11PW09	Balasubramaniyan	6.0
9.	Zoho Corporation, Chennai	2	11PW11	Hemalatha D	6.6
			11PT15	Nagarajan S	6.6
10.	Thorogoods, Bangalore	4	11PW12	Ishwarya	11.0
			11PW31	Shiney J	11.0
			11PT03	Aishwarya Mohan	11.0
			11PT23	Sameeraja K L	11.0
11.	Intel, Bangalore	3	11PW15	Karthick C	12.0
			11PW22	Prenitha L	12.0
			11PT12	Mahalakshmi M	12.0
12.			11PT27	Sreeram Mohan V	12.0
13.	KLA – Tencor Software India , Chennai	4	11PW16	Krithika K S	10.5
			11PW17	Lakshmi Priya	10.5
			11PT10	Dharani Priyanka S	10.5
			11PT21	Sabhareesh R	10.5
14.	Divum Corporate, Bangalore	5	11PW18	Manobharathi S	5.0
			11PW19	Nirupama Jayaa	5.0
			11PT05	Ashok V R	5.0
			11PT22	Sai Ganesh K	5.0
			11PT29	Varshini M	5.0
15.	E & Y, Chennai	2	11PW21	Preethi K	3.5
			11PW40	Vignesh Kumar B	3.5
			11PT26	Sharmila V	3.5

S.No.	Name of company	No. of students	Students placed		Package per annum (lakhs)
			Roll No.	Name	
16.	Juniper Networks, Bangalore	2	11PW23	Preyes M	10.0
			11PW27	Sangavi D	10.0
17.	Attune Technologies, Chennai	1	11PW30	Sharmadha S	6.2
18.	Infosys Expert Track, Bangalore	3	11PW33	Sowmea Shree M	16.0
19.	Citrix, OFFS Bangalore	4	11PW35	Sujitha S	5.64
			11PW37	Supraja N	5.64
			11PT01	Abiraami A N	5.64
			11PT02	Aishwarya Easwar	5.64
20.	Thoughtworks, Chennai	1	11PW36	Sukanya S	6.5
21.	Amazon, Bangalore	2	11PW38	Thirukkakarnan S	18.0
			11PT11	Harish G	18.0
22.	Bridge i2i	2	11PW41	Nethra R	5.0
			11PT06	Aswin Karthik P	5.0
23.	ChargeBee, Chennai	2	11PT07	Bhuvana Sai B	5.4
			11PT30	Vinothini M	5.4
24.	eBay, Bangalore	1	11PT15	Nagarajan S	13.0
25.	Akira, Bangalore	1	11PT16	Neethu S	6.0
26.	Myntra, Bangalore	2	11PT17	Nithyanantham G	19.5
			11PT28	Meera V S	19.5
27.	CTS, Chennai	1	11PT18	Nithya D	3.25
28.	Microsoft, Bangalore		11PT20	Guru Prasanna S	18.0
29.	IBM Labs, Chennai	1	11PT24	Sandeep k	7.5
30.	Multicore Ware, Bangalore	1	11PT25	Santhosh Kumar R	5.0

4.7. No. of students passed out

Year	M.Sc (Applied Mathamatics)	M.Sc (Computer Systems and Design)	M.Sc (Software)	M.Sc.(Theoretical Comp. Science)	B.Sc (CT) G1 & G2	B.Sc (IT)
2007	---	---	41	---	---	---
2008	---	---	38	---	---	---
2009	---	---	37	---	---	---
2010	---	---	38	---	---	---
2011	---	---	38	---	---	---
2012	---	---	38	30	---	---
2013	---	---	39	29	---	---
2014	---	---	40	29	110	37
2015	---	---	40	30	110	35
2016	12	23	39	29	---	---

4.8. PSG Tech students pursuing higher studies

S.No.	Name of student	Degree pursuing	University
1	Mr.Kasi Viswanathan	MS	Carnegie Mellon University, USA
2	M. Akshaya	Ph.D	Georgetown University, USA

4.9. Industrial training and project

4.9.1 Industrial visit

S.No.	Name of company	No. of students & course	Period	Area of training
1	IBM and [24]7 Innovation Labs Bangalore	60, UG B.Sc (CSD) IV th sem	08.01.2016 -10.01.2016	Various domains in IT Industry
2	IBM and [24]7 Innovation Labs Bangalore	60, UG B.Sc (IS) IV th sem	08.01.2016 -10.01.2016	Various domains in IT Industry
3	DIVUM Technologies, Thoughtworks and Bridgei2i Analytics Solutions Bangalore	26, PG M.Sc(TCS) VIII st Sem	13.01.2016-16.01.2016	Various domains in IT Industry
4	DIVUM Technologies, Thoughtworks and Bridgei2i Analytics Solutions Bangalore	35, PG M.Sc (SE) VIII st Sem	13.01.2016-16.01.2016	Various domains in IT Industry
5	IBM, 24[7] Technologies Pvt Ltd., and Synuo.com, Bangalore and Mysore	58 , PG- M.Sc (SS) and M.Sc (TCS) IV th Sem	19.02.2016 - 21.02.2016	Various domains in IT Industry

5. SUMMARY

S.No.	Activity	No.	
1.	Sponsored research projects undertaken	2	
2.	Sponsored research projects completed till date	17	
3.	Scholars pursuing doctoral research	37	
4.	Papers published in international journals	13	
5.	Papers presented in international conferences	5	
6.	Students passed out during 2015 – 16	PG	103
7.	Students passed out till date	PG	1,333

DEPARTMENT OF APPLIED SCIENCE

ABOUT THE DEPARTMENT

The Department of Applied Science was established in the year 1951. The department has been working towards fulfilling its mission through a synergic combination of teaching and research. Apart from the under-graduate, post-graduate and research programmes, the department has also been conducting short-term continuing education programmes for participants from educational institutions and industries. The mission of the department is to contribute to the training of a wide spectrum of students of engineering and technology by offering relevant curricular inputs related to Applied Physics and offer departmental programmes leading to undergraduate and postgraduate degrees. Research, development and consultancy activities are being undertaken to achieve self-sufficiency in Hi -Tech Materials, devices and instruments. The department has a thin film centre with state- of- the art facilities. Research work in the areas of thin film optical memory devices, MEMS, solar cells etc., are in progress in the centre. The long term plan of the department is to develop the Thin Film Centre in the department into a Centre of Excellence by getting more grants to enhance the facilities and by developing more man power in the specialized fields and also to design and offer new post graduate programmes in specialized areas for which facilities and expertise are available in the department. To frame the curriculum to suit the needs of the industries and getting patents for the output of research and development work are planned in future.

During the last few years, there has been a rapid growth in the academic activities of the department. The in-take of the UG programme B.Sc. (Applied Science) has been increased to 2000. Sponsored project grants from various external agencies have been acquired more than 1crore. Many M.Phil projects have been completed and several Ph.D. projects are in progress. The short term plans of the department are the following: To maintain this momentum and further enhance the activities by getting all the faculty members who do not have Ph.D. degree to register for Part Time Ph.D. , directing all the faculty members in the department to submit project proposals to external funding agencies and get project grants, identifying more industries / institutions where the B.Sc. Materials Science students can do their mini / main project work, directing faculty members who are guiding UG / M.Phil/ M.Tech project work to ensure that the project work is of good standard and publish the work in National / International journals, improving the placement activities to get 100% placement for UG students, organizing Short Term Programmes / National Conferences in which expertise and facilities are available in the department, viz., Thin film devices / MEMS/ Piezo sensors / Electro optic materials / Solar cells /Spintronics Quantum dots and sending proposals to management for regular annual funds for the up gradation of UG laboratories and for augmenting the department library.

A brief on research activities

The department has received funding from various governmental agencies such as DST, AICTE, UGC, CSIR and AERB to carry out research in the areas mentioned below. The facilities available are used to synthesize and characterize a wide variety of materials for both research and industrial applications.

Major areas of research

- Thin films for Solar cells applications
- Plasma processing for the development of functional materials
- Piezo electric composites and devices
- Spintronics
- Lithium Batteries and fuel cell
- Radiation dosimetry

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr.C.K. Shashidharan Nair, Ph.D Professor and Head	cks@phy.psgtech.ac.in	1976	Thin film devices, Micro electro mechanical systems, High density data storage devices, Plasma surface modification
2	Dr. M.D. Kannan, Ph.D Associate Professor	mdk@phy.psgtech.ac.in	1992	Thin film solar cells, Micro electro mechanical systems
3	Dr. S.C Murugavel, Ph.D Associate Professor	scm@bsc.psgtech.ac.in	1998	Polymer science & Technology photo polymers
4	Dr. J. Jeyakodi Moses, Ph.D Associate Professor	jj_moses2k2@yahoo.co.in	1997	Advanced Textile chemical Processing, TextileChemistry
5	Dr. K. Vaideki, Ph.D Associate Professor	kvi@phy.psgtech.ac.in	1999	Plasma surface modification
6	Dr. P. Yasodha, Ph.D Assistant Professor	pya@phy.psgtech.ac.in	2006	Phase Transitions studies in Novel Materials
7	Mr. A. Senthilkumar, M.Phil Assistant Professor	ask@phy.psgtech.ac.in	2008	Materials Science , Ceramic Materials , Composite Materials
8	Mr. C. Sudarshan, M.Phil Assistant Professor	sud@phy.psgtech.ac.in	2008	Thin films
9	Mr. M. Obulichetty, M.Phil Assistant Professor	obu@che.psgtech.ac.in	2008	Solid State Chemistry, Organic Crystal growth
10	Dr. D. Dhanalakshmi, Ph.D Assistant Professor	dgd@phy.psgtech.ac.in	2012	Organic Spintronics, Thin films, Magnetism
11	Mr .S. Subramanian, M.Phil Assistant Professor	sss@bsc.psgtech.ac.in	2010	Electro Chemistry- Nanocoating
12	Dr.C.K.Senthilkumaran, Ph.D Assistant Professor	ckskcbe@gmail.com	2016	Biomaterials

2. FACULTY DEVELOPMENT

2.1 Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1.	Mr. A. Senthilkumar	Ph.D	2011, Ongoing
2.	Mr. C. Sudharsan	Ph.D	2011, Ongoing
3.	Mr.M. Obulichetty	Ph.D	2011, Ongoing
4.	Mr.S.S. Subramanian	Ph.D	2011, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.C.K.Shashidharan Nair	Science Spark, Science Workshop & Sky Watch	-	29.02.2016
2	Dr.K. Vaideki	Quiz Competition for School and College students to celebrate 100 th year of Theory of Relativity	-	21.12.2015-22.12.2015

2.3 Special lecturer delivered

S.No	Name of the Faculty	Title of programme	Topic	Organizer	Date
1	Dr.C.K. Shashidharan Nair	DERMACON 2016	Physics of cosmetic camouflage	Indian Association of Dermatologists, Venerologists & Leprologists	22.01.2016 - 23.01.2016
		Science day	Science in engineering	Sri Ramakrishna Engineering College, Coimbatore	01.04.2016
		Recent trends in testing of Automobile systems and components	Acoustic materials	Department of Automobile Engineering, PSGCT	14.05.2015
2	Dr.K. Vaideki	Quality Improvement Programme in "Advances in New Engineering Materials	Plasma Surface Modification of Textiles for Healthcare Applications	Coimbatore Institute of Technology , Coimbatore	23.12.2015
3	Dr.D. Dhanalakshmi	Quality Improvement Programme in "Advances in New Engineering aterials"	Organic spintronics	Coimbatore Institute of Technology, Coimbatore	26.11.2015

2.3. Book published

S.No.	Name of faculty	Details of the book
1	Dr.J.Jeyakodi Moses	Efficacy of Antimicrobial Finish Using Triclosan on Silk / Lyocell Blended Fabrics

3. DEPARTMENT ACTIVITIES

3.1 Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Thin Film Lab	Kyowa interface angle meter Model: DMS-200	2.0
2		FAMAS dongle with CD (software)	0.70
3		Target (Fe50 Co50)	0.60

3.2. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1.	Development of multifunctional textiles using micro wave plasma	Dr. K. Vaideki	DST New Delhi	2013 In progress	3 Years	25.0

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
	surface functionalization					
2.	Image quality / patient - staff dose studies & development of dose audit procedures In interventional cardiology	Dr. K.N. Govinda rajan Dr. K. Vaideki	AREB Mumbai	2013 In progress	2 years	32.0
3.	Investigation on Spin transport by using different metal electrode an organic spin - valve structure for spintronics applications	Dr. D. Dhana lakshmi	UGC New Delhi	2013 In progress	3 Years	12.0
4.	Fabrication of environmentally stable super hydro phobic surface on aluminium using chemical grafting method	Mr. S.S. Subramanian	UGC New Delhi	2015 In progress	2 years	3.45

3.2.1. Sponsored research activities – Abstract

Development of multifunctional Textiles using microwave plasma surface functionalization

In Textile field there is always a search for new green innovative ideas and techniques to improve product quality. Low temperature Plasma treatment is one such green technique to impart distinct properties on to the surface of the fabric using different atmospheric conditions and pressures. This plasma surface modification can be done on different textile substrate using different types of green techniques, but the most reliable and efficient technique is the microwave plasma. Because there is always a uniform modification on the surface of the fabric, as the microwave chamber is completely filled with plasma when the optimized power is applied. The surface modification of the fabric is possible with different processing gas such as air, oxygen and inert atmospheres. Depending on the conditions, three main primary effects that can be obtained on the surface of the fabric by plasma treatment are cleaning of the surface, increase of surface roughness and imparting of hydrophilic/hydrophobic properties giving way to specific applications. One of the most important characters of Plasma treatment is that, only the surface layer is treated without effectuating the bulk properties of the fabric. Here we discuss the effect of Microwave plasma under different processing atmospheres, pressure and power input to impart Hydrophilic and self cleaning nature of the surface of the fabric.

Image quality / patient - staff dose studies & development of dose audit procedures in interventional cardiology

Measurement of patient doses is mandatory in several countries in Europe. However, in the Indian context, neither the necessary expertise nor Physics services are available in Cath., Labs to record

patient doses for various cardiac procedures, Cath labs. must rely on the dose quantities, DAP and IRP doses, that are displayed by the modern C-arm angiography units. The displayed dose quantities must be properly calibrated so that the recorded patient doses are reliable and known with good accuracy and that the results between the Cath labs can be compared with confidence. Hence, the development of calibration procedures, for calibrating the DAP and IRP doses, displayed by the modern C-arm units, is first objective of this project. We need to devise some method or monitoring system to remotely monitor patient doses so that Cath Labs. delivering unoptimized doses can be easily identified and corrected by visiting these centers and making direct measurements. This is the another objective of the project. The validity of the remote monitoring system will be tested by auditing few Cath labs in the nearby areas and also making direct measurements. This monitoring method, when developed, will be of great benefit to AERB to check patient doses involved in Cath, Labs in the country

Investigation on spin transport by using different metal electrodes in an organic spin-valve structure for spintronic applications

Organic spintronics is the study of spin transport through organic semiconductors (OSC). Organic spintronics is an exciting new research area which combines the field of spintronics with the field of OSEs and should lead to new technologies. A lot of research work has been carried out on organic semiconductors which resulted in low cost and low energy production. After this the studies have focused on explaining the charge transport properties within these materials. Many device architectures have been investigated; which includes organic light emitting diodes (OLEDs), organic field effect transistors (OFETs) and organic solar cells. OSEs have numerous advantages over inorganic semiconductors as mentioned earlier in terms of spintronic applications. OSEs also have another crucial advantage over inorganic semiconductors or metals, the weak spin orbit interaction and hyperfine interaction in organic materials lead to extremely long spin relaxation times. The main objective of this project is to build up a coherent picture of spin polarized transport in OSEs using organic spin valves as a test platform. The most common way to study spin injection and transport in organic devices is by fabricating a simple configuration know as an organic spin valve. The fabrication of metal/organic/metal will be carried out using sputtering, thermal evaporation and spin coating. The MR of each electrode was measured separately. A magneto-optic Kerr effect magnetometer is used to measure the magnetization loops of each electrode and the whole test structure. The thickness and surface morphology of the layers are characterized by atomic force microscopy (AFM).

Fabrication of environmentally stable super hydro phobic surface on aluminium using chemical grafting method

Water is the most important natural resource on earth, but it causes destruction of the surface over time. For example rain water wears away concrete structures and paint coatings. Water sticks on the surface of the wind shield or cloths, reducing vision and comfort respectively. Water clings on the metal surfaces, increasing the chance of rapid corrosion. Super hydrophobic surfaces(SHS) are surfaces that are able to repel water. SHS are characterized by high values of water contact angle, θ . Surfaces with contact angle higher than 150° and low contact angle hysteresis ϕ (the difference between advancing θ_A and receding contact angle θ_R measured by expanding and withdrawing a drop quasi-statically on a horizontal surface are referred as superhydrophobic surfaces. A combination of high contact angles and low contact angle hysteresis leads to low capillary adhesion force between the drops and the solid substrate. Water drops are able to encapsulate dust and dirt particles, while moving on the surface, and exhibits the self-cleaning action on the surface. Due to their peculiar properties, SHS have been gaining more interest on potentially wide range of applications, such as anti-icing and corrosion resistant surfaces. An optimal adhesion between the surface and the coating has a very high industrial application. Among various coating techniques, such as chemical vapour deposition, polymer or composite coating and sputtering, surface functionalization by wet chemical grafting allows to get the desired surface with very high environmental stability. Fabricating eco

friendly and robust SHS on aluminium and its alloy have great uses for a variety of industrial fields like aviation and automotive. Our aim is to fabricate a superhydrophobic surface on aluminium substrate using long chain carboxylic acids, synthetic fluoro-alkylsiloxanes etc., by wet chemical grafting and by avoiding the complex techniques, expensive instrumentations and environmental hazardous chemicals

3.3. Doctoral research

S.No	Candidate	Short title / Area of Work	Supervisor with Designation / Institution	Year of registration / status
1.	Ms. G. Lalitha	Polyesters	Dr.S.C. Murugavel Associate Professor, Department of Applied Science, PSG CT, Coimbatore	2010, Ongoing
2.	Ms. R. Vini	Liquid Crystalline Polymers		2010, Ongoing
3.	Mr. M. Natarajan	Flame Retardant Polymers		2011, Ongoing
4.	Mr. C. Mahesh	Liquid Crystalline Polymers		2012, Ongoing
5.	Ms.D. Kavitha	Liquid Crystalline epoxy and Polyesters		2014, Ongoing
6.	Mr.C. Sudarshan	Thermoelectric materials	Dr. S. Jayakumar Professor and Head Department of Applied Science, PSG CT, Coimbatore	2011, Ongoing
7.	Mr.A.Senthil kumar	Ceramic Materials	Dr. R. Balaji Assistant Professor, Department of Applied Science, PSG CT, Coimbatore	2011, Ongoing
8.	Ms. S. Anitha	Investigation on the effect of Plasma pretreatment on antimicrobial efficacy of Neem extract and Metal oxide Nano particle treated cotton fabric	Dr. K. Vaideki Associate Professor, Department of Applied Science, PSG CT, Coimbatore	2011, Ongoing
9.	Mr. A. Saravana kumar	Diagnostic Radiological Physics		2011, Ongoing
10.	Mr. S. Prabhu	Development of Multifunctional textile using plasma surface Modification		2014, Ongoing
11.	Mr.M. Obulichetty	Solid State Chemistry	Dr. D. Saravanabathi Assistant Professor(SG) Department of Chemistry, PSGCT, Coimbatore	2012, ongoing
12.	Mr.S. S. Subramanian	Nanocoating for Corrosion production	Dr. M. Kumaravel Associate Professor(SG) Department of Chemistry, PSGCT, Coimbatore	2010, Ongoing

3.4. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR
1	Dr.K. Vaideki	Dr.R.T. Rajendrakumar DRDO-BU Centre for life Sciences Bharathiar University, Coimbatore	FTIR	4,100
2	Dr.R. Balaji	The Principal , Chikkanna Govt. Arts College, Tirupur	Piezoelectric properties	4,400
3	Mr.A. Senthilkumar	Mr.J. Senthil, Assistant Professor Dept.of Science and Humanities, SNS College of Technology,	DSC	6,800

3.5. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	482	-	-	-	-	-
2	GRD Library - Physics	5000	2590	410	-	13	-

3.6. Board of studies

S. No.	Date	Agenda	External experts
1	31.10.2015	<p>1. Revision of regulations, subjects of study and syllabi of B.Sc Applied Science programme 2015 regulations.</p> <p>2. Programme Advisory Committee – review of B.Sc Applied Science programme</p>	<p>1. Dr. G. Govindaraj Professor, Dept of Physics Pondichery University, Pondicherry</p> <p>2. Dr. M.G. Sethuraman Professor, Department of Chemistry Gandhigram Rural University, Gandhigram</p> <p>3. Dr. D. Arivuoli Professor, Department of Physics Anna University, Chennai – 25</p> <p>4. Dr. S. Paul Raj Professor Department of Mathematics Anna University, Chennai – 25</p>
2	09.04.2016	<p>Discussion on course objectives and course outcomes of B.Sc Applied Science programme and finalization of detailed syllabi.</p>	<p>1. Dr. D. Arivuoli Professor, Department of Physics Anna University, Chennai – 25</p> <p>2. Dr. S. Paul Raj Professor Department of Mathematics Anna University, Chennai – 25</p> <p>3. Dr.M. Venkatachalam Associate Professor Department of Electronics Erode Arts College, Erode</p> <p>4. Mr. R. Jagadeesh Sr. Manager, CTS, Velacherry Chennai - 26</p>

3.7. Research publications

3.7.1. Papers published in international journals

1. A. Saravanakumar, K. Vaideki, K. N. Govindarajan, S. Jayakumar, and B. Devanand, "Estimation of dose reference levels in computed tomography for select procedures in Kerala, India", *Journal of Medical Physics*, Vol.40(2) (2015). pp 115–119.
2. S. Anitha; K. Vaideki; S. Jayakumar; R. Rajendran," Enhancement of antimicrobial efficacy of neem oil vapour treated cotton fabric by plasma pretreatment", *Journal of Materials Technology*, Vol.30,6(2015), pp. 368-377.
3. A. Saravanakumar, K. Vaideki, K. N. Govindarajan, S. Jayakumar, and B. Devanand, "Cost-effective pediatric head and body phantoms for computed tomography dosimetry and its evaluation using pencil ion chamber and CT dose profiler", *Journal of Medical Physics*, Vol 40(3), (2015), pp 170-175.
4. S. Padmaja S. Jayakumar R. Balaji K. Vaideki, "A Comparative study on CdS: PEO and CdS: PMMA nanocomposite solid films", *Journal of Materials Research Bulletin*, 2016.
5. E.Nithya, R.Radhai, S.Prasanna, K.Vaideki, R.Rajendran, S.Jayakumar, "Physico-chemical Analysis of Oxygen Plasma and Enzyme Treated Cotton Fabrics", *IJRSET*, Vol 4(2) (2015), pp 94-102.
6. A. Senthil Kumar, R. Balaji, "Microwave and conventional sintering of gadolinium doped barium cerate: a comparative study", *Journal of Optoelectronics and Advanced Materials*, Vol. 16, 4 2015, (pp.21 - 27).
7. M.Obulichetty "New 2-methyl benzimidazole based zinc carboxylates : Supramolecular structures, biomimetic proton conductivities and luminescent properties ", *Journal of Inorganica Chimica Acta*, Vol. 437(2015), pp 167-176.
8. S.S.Subramanian , "Role of partially amorphous structure and alloying elements on the corrosion behavior of Mg–Zn–Ca bulk metallic glass for biomedical applications" *Journal of Materials and design* Vol. 86 (2015), pp 829-835.
9. Jeyakodi Moses J " Study on Polyvinylalcohol Treated Polyester Fabric for Hydrophilicity" LAMBERT Academic Publishing, Germany , 2015 ISBN: 978-3-659-71008-7
10. S.S. Subramanian, " Electrochemical evaluation of inhibition efficiency of ciprofloxacin on the corrosion of copper in acid media", *Journal of Materials Chemistry and Physics*, (2016), pp. 1-9.
11. Jeyakodi Moses and Gnanapriya, "A Study on Modal Fabric using Formic Acid Treatment for K/S, SEM and Fourier transform infrared spectroscopy" , *Oriental Journal of Chemistry*, Vol.32(2) 2016.
12. Jeyakodi Moses, J, Mariappan, A, Vellingiri, K, "A Study on Silk and Its Mixed Fabric For Their Functional Properties", *Walailak of Science & Technology* , Vol. 13. (2016).
13. Jeyakodi Moses J and Gnanapriya, " Properties of modal fabric after formic acid treatment ", *Journal of Environmental Science, Computer Science and Engineering & Technology*, Vol. 5 (2)2016, pp. 31-44.
14. J. Jeyakodi Moses, V. K. Venkataraman, " Study of dyeing, absorbency, mechanical and surface properties on chemical treated cotton fabric", *Asian Journal of Research in Chemistry* , Vol. 8 (11) 2015, pp. 664 – 674.
15. J. Jeyakodi Moses, V. K. Venkataraman, "Functional finishes on various chemical treated cotton fabric using chitosan", *Asian Dyer*, Vol. 12 (6) (2015), pp. 51 – 58.
16. Jeyakodi Moses Jeyaraj, Mariappan Arumugam, & Vellingiri Kulandaippan, " A study on the functional properties of silk and polyester / lyocell mixed fabric", *Journal of Revista Materia*, Vol. 20 (4)(2015), pp. 924 – 935.
17. Jeyakodi Moses, J, Mariappan, A, Vellingiri, K, " A Study of anti-odour and UV- protection behaviour on silk and its polyester / lyocell mixed fabric", *Journal of Textile and Apparel Technology and Management*, Vol. 9,2(2015), pp.1–12.
18. A. Senthilkumar, R. Balaji, P. Puviarasu, S. Jayakumar, "Microwave and conventional sintering of gadolinium doped barium cerate: a comparative study", *Journal of Optoelectronics and Advanced Materials*, Vol.9 No.5-6,(2016), pp.788-791.
19. A. Senthilkumar, R. Balaji, S. Jayakumar, "Microwave Assisted Sintering Of Gadolinium Doped Barium Cerate Electrolyte For Intermediate Temperature Solid Oxide Fuel Cells", *International Journal of Materials Chemistry and Physics*, vol.182 (2016), pp.520-525.

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	M.Sc Materials Science – II year	4
2	M.Sc Applied Chemistry – II Year	12
3	B.Sc Applied Science – I Year	53
4	B.Sc Applied Science – II Year	26

4.2. Competitive exam

S. No.	Exam	No. of students appeared	No. of students qualified
1	SLET	2	NIL

4.3. PG Project

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
1.	14PM02	Carolin Suji U	Microstructural and corrosion characterization of 9 Cr-1Mo steel based metal waste form Alloy	Dr.C.K. Shashidharan Nair	IGCAR, Kalpakkam
2.	14PM05	Sriram V N	Effect of DC air plasma surface modification on hydrophilicity of cotton fabric	Dr. K. Vaideki	-
3.	14PM03	Gayathri D	Corrosion studies on structural alloys by thermo gravimetric analysis	Dr.R. Balaji	IGCAR, Kalpakkam
4.	14PM01	Aparna Sarman K M	Corrosion studies on high entrop alloys	Dr.D. Dhana lakshmi	IGCAR, Kalpakkam
5.	14PC01	Anusree P	Improving the sensory profile of talcum powder	Mr.S.S. Subramanian	Cavin Kare, Chennai
6.	14PC02	Arunima J	Synthesis of Hydroxyapatite using calcium surfactant as precursor	Dr.J.Ravichandran	HUL R&D Bangalore
7.	14PC03	Aswathi A T	Nanocellulose from Moringa Oleifera: Extraction, isolation and study of properties	Dr.J Ravichandran	HUL R&D Bangalore
8.	14PC04	Aswathi K P	To develop a sulfate free shampoo – on par with sulfate system	Dr.J.Jeykodi Mosses Dr.J.Ravichandran	Cavin Kare, Chennai
9.	14PC05	Jikesh Antony	Catalytic Conversion of biowaste in to 5 – Hydroxymethyl furfural and its derivatives	Dr.J.Ravichandran	PSG IAS Coimbatore
10.	14PC06	Kirthi D	Manipulation of hydrogel strength and release kinetics of actives using additives and processing routes	Dr.J.Ravichandran	HUL R&D Bangalore

S.No.	Roll No.	Name of student	Title of the project	Guide	Industry /Institute associated
11.	14PC07	Layana K	Evaluation of color retention efficacy against wash fastness of marketed hair colours	Mr.S.S. Subramanian	Cavin Kare, Chennai
12.	14PC08	Listo Varghese	Catalyzed oxidation of benzyl alcohol in water	Dr.J.Ravichandran	PSG IAS Coimbatore
13.	14PC09	Malathy R	Pressing additives to reduce pressing force and friction	Dr.J.Ravichandran	Kennametal Bangalore
14.	14PC10	Manasa P	Development of hair serum and hair gel for dandruff control	Dr.J.Jeykodi Mosses Dr.J.Ravichandran	Cavin Kare, Chennai
15.	14PC11	Ramya V G	Creaming and composition of tea	Dr. J. Ravi chandran	HUL R&D Bangalore
16.	14PC12	Shree Ranjani A	Surface Chemical Interaction of Chromophore with Hydroxyapatite	Dr. J. Ravi chandran	HUL R&D Bangalore

5. SUMMARY

S. No.	Activity	No.
1	Workshops conducted	2
2	Sponsored research projects ongoing	4
3	Scholars pursuing doctoral research	12
4	Papers published in international journals	18

DEPARTMENT OF CHEMISTRY

ABOUT THE DEPARTMENT

The Department of Chemistry was established in 1951. The department offers Ph.D. programmes in various fields of chemistry. The department actively supports the engineering departments by handling courses such as Applied Chemistry, Environmental Science and Engineering, Corrosion Engineering, Fuel Cells, Polymer technology, etc. for various UG and PG programmes.

The department has well equipped laboratories to offer laboratory courses to all B.E, B.Tech, B.Sc (Applied Sciences) programmes, guiding specific project works for the final year students.

Research laboratories have been established in the fields of Bio-electrochemistry, Corrosion engineering and Advanced Materials to enable the faculty to take up effective research. The major research areas of interest in the department are Electrochemistry, Drug-Membrane interaction and Drugs toxicity studies, Biosensors and Chemical sensors, Electrochemical pollution control, Metal-organic complexes, Nanomaterials, Sol-gel Techniques, Ceramics, Catalysis, etc. The department also takes up testing and consultancy in water quality assessment, fuel characterization and calorific value and corrosion and its control, analysis of cement, concrete and alloys, etc. for industrial and research samples.

COURSES OFFERED:

- Ph.D in Chemistry (Part-Time and Full-Time)

Major Areas of Research

- Corrosion Engineering
- Polymer Science
- Drug Toxicity Studies
- Drug Membrane Interaction
- Electro Analytical Chemistry
- Electrochemical Pollution Control
- Organo Metallic Chemistry
- Adsorption Studies
- Textile Chemistry
- Semiconductors
- Ceramics and Catalysis

1. FACULTY

S.No.	Name & designation with highest qualification	email id	Year of joining	Areas of specialization
1	Dr.M.Kumaravel, M.Sc., M.Phil.,Ph.D. Professor & Head	mkv@che.psgtech.ac.in mkvpsg@gmail.com	1989	Electrochemistry, Drug Membrane Interaction
2	Dr.J.Ravichandran, M.Sc, Ph.D Professor	jrc@che.psgtech.ac.in	2009	Catalysis ceramics
3	Dr.S.Senthil Kumar, M.Sc, M.Phil, Ph.D, Assistant Professor (Sr.Gr)	ssk@che.psgtech.ac.in	2001	Inorganic materials
4	Dr.C.Theivarasu, M.Sc, M.Phil, Ph.D Assistant Professor (Sr.Gr)	ctr@che.psgtech.ac.in	2002	Metal Organic chemistry
5	Dr.Swarna Natarajan, M.Sc, Ph.D Assistant Professor	snnv@che.psgtech.ac.in	2003	Textile Chemistry
6	Dr.J.R.Sharmila, M.Sc, Ph.D Assistant Professor	jrs@che.psgtech.ac.in	2005	Coordination Chemistry
7	Dr.R.Devi, M.Sc.,M.Phil., Ph.D Assistant Professor (Sr.Gr.)	dev@che.psgtech.ac.in	2002	Polymer chemistry
8	Dr.D.Saravanabharathi, M.Sc., Ph.D. Assistant Professor (Sr.Gr.)	dsb@che.psgtech.ac.in	2006	Inorganic Materials, Reaction Mechanisms, Applied Chemistry
9	Dr.D.Maruthamani, M.Sc., M.Phil., Ph.D. Assistant Professor (Sr.Gr.)	dmm@che.psgtech. ac.in	2008	Novel Photocatalysts for Energy and Environmental applications
10	Dr.R.Kala, M.Sc.,Ph.D. Assistant Professor (Sr.Gr.)	kal@che.psgtech.ac.in	2011	Biomimetic Polymeric Materials, Metal Separation / Removal
11	Dr.M.Murugananthan, M.Sc.,Ph.D. Assistant Professor (Sr.Gr.)	mma@che.psgtech. ac.in	2011	Novel Electrode Materials for Water and Wastewater Treatment

2. FACULTY DEVELOPMENT

2.1. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr.S.Senthilkumaar Dr.C.Theivarasu	AICTE sponsored summer winter school scheme on Automobile Engineering – Recent Innovations in Engines, Power train, Emission Measurements and Alternate Fuels	PSG CT, Coimbatore	07.06.2015- 20.06.2015
2	Dr.J.R.Sharmila Dr.R.Devi	AICTE – QIP sponsored short from course on “Advances in composite Materials”	Coimbatore Institute of Technology, Coimbatore	04.01.2016- 10.01.2016
3	Dr.J.R.Sharmila	Modern Trends, Challenges in Waste water treatment and		08.02.2016- 14.02.2016

S.No.	Name of faculty	Programme	Organizer	Period
		sludge disposal		
4	Dr.S.Senthil kumaar Dr.C.Theivarasu	Biofuels – Recent Developments, Challenges and Current Prospects	Coimbatore Institute of Technology, Coimbatore	20.02.2016 - 26.02.2016
5	Dr.J.Ravichandran	Seventy five years of Plutonium 239 (Pu75)	IGCAR, Kalpakkam	23.05.2016- 25.05.2016

2.2. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr.J.Ravichandran	UGC sponsored National Seminar on Recent advances in chemistry	Chemistry our life our future	St Mary's College, Trichur	19.08.2015
2	Dr.S.Senthil kumaar	National Guest Lecture	Nano Technology: Basics & its Applications in medicine	NGM College, Pollachi	22.01.2016
3	Dr.S.Senthil kumaar	National Seminar on Chemistry and Pharma	Chemistry & Pharma – An Inter disciplinary Approach: Drug Delivery – Nano Carriers	Vellalar College for Women, Erode	05.02.2016

2.3. Faculty involvement in other activities

S.No.	Name of Faculty	Activity / Role	Organization
1	Dr.M.Kumaravel	Member of Board of studies	Sri Ramakrishna engineering college, Coimbatore Karpagam University, Coimbatore Nandha Engineering College, Erode
3	Dr.J.Ravichandran	Company R&D Personnel interactions 3 rd May2016	Dr.Amit Chaterjee and Dr.Hemant Kumar Aiyer, Aditya Birla, Mumbai and Dr.T.Sivakumar, Anna University, Chennai
4	Dr.S.Senthilkumaar	Member of Board of studies	Erode Arts College, Erode Dr.Mahaligam College of Engg & Technology, Pollachi
5	Dr.C.Theivarasu	Programme Officer	National Service Scheme

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S. No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Research Lab	Annular type Multi lamp photo reactor	1.78

3.2. Sponsored research activities

S.No.	Project Title	Investigators	Sponsoring Agency	Year of Commencement & Status	Duration	Grant In INR (Lakhs)
1	Synthesis of Proton Conducting Metal Organic Frameworks(MOFs)	Dr.D.Saravana bharathi	SERB, New Delhi	2013, Ongoing	3 years	22.08
2	Studies on the Interaction of Midazolam with supported bi layer Lipid membranes	Mr.S.Ramesh kumar	UGC-SERO, Hyderabad	2014, Completed	2 years	1.9
3	Photodegradation of recalcitrant organic water pollutants using graphene oxide - ZnO nanocomposite.	Dr.D.Marutha mani	UGC, Hyderabad	2015, Ongoing	2 years	3.4

3.2.1. Sponsored research activities – Abstract

Synthesis of Proton Conducting Metal Organic Frameworks (MOFs)

Proton-conducting materials have attracted a great deal of interest owing to their applications as membranes in fuel cells, electrochromic devices, humidity sensors and gas separators. The Nafion, a perfluorinated polymer, with $-SO_3H$ functional groups, is one of the most widely used materials for proton conducting applications under hydrated conditions. Mechanistically, the $-SO_3H$ functional groups of the Nafion form several nano channels through which the hydrated protons can pass through via the hydrogen-bonded network. However, at elevated temperatures ($> 80^\circ C$), or under low humidity levels the water clusters are lost from the pores of Nafion, which results in the reduction of conduction ability.

In addition to this limitation, the other drawbacks of Nafion membranes are their high cost, attainment of glass transition at high temperature, a high fuel cross over, environmentally non-friendly synthesis and heavy dependence on their degree of sulfonation. Such difficulties have led to the development of other proton conducting materials. A lot of alternate sulfonated ionomers and polymer composites have been developed for proton conducting applications. One of the approaches is to use the amphoteric non-volatile, heterocyclic groups in the polymer side chain. The heterocyclic groups present in the polybenzimidazoles (PBI) systems allow anhydrous proton transfers via imidazole / imidazolium pair, as in biological proton transport, and impart high temperature proton conduction for the material. Polymer composites have also been synthesized by incorporating hydrated inorganic fillers such as solid acids, oxo acid salts and clays in the polymer matrices. These hydrated inorganic fillers retain the water clusters more tightly in the polymer matrices and facilitate proton transport even under low humidity levels. The literature on the proton conducting materials is mainly associated with these types of organic polymers and / or their composite systems and continues to grow extensively. However, the phenomenon of conductivity is not very much associated with the crystalline compounds. Recently, the metal-organic frameworks (MOFs), that are generated with the logical connections of polytopic organic ligands by metal ions, possessing well-defined crystallinity, and porosity, are also gaining importance as proton transporting materials. The studies on MOFs are mostly focused on applications such as gas storage, catalysis, and molecular magnetism and for inclusion phenomenon associated with structural curiosities. The proposed advantages of using the MOFs for proton transport are; (a) the structures of MOFs are known precisely and could be modulated (b) the pores of MOFs could be loaded with non-volatile proton carriers in a controlled manner, for anhydrous proton conduction, as well as for

preventing the fuel crossover (c) possibility of fine tuning the structure for efficient conduction and robustness, which distinguish them from the other classes of crystalline inorganic fillers used for polymers composites.

The aim of this project is therefore to develop different types of anhydrous proton-carrier embedded transition metal based MOFs. Such investigations are also expected to yield robust materials for practical applications in fuel cell technologies. This work could yield MOFs, which are suitable as electrolytes for elevated temperatures applications and can allow the working temperatures of the fuel cells to be increased for achieving best performances.

Electrochemical studies on drug membrane interaction and development of bilayer lipid membrane based electrochemical sensors

Benzodiazepines are a class of compounds used for sedation (sleeping pills such as diazepam, Lorazepam) to anesthesia such as Midazolam. Midazolam is an ultra short-acting benzodiazepine, used as a premedicant and sedative in surgical and other procedures and for the induction of anesthesia. Presently, Midazolam is the most widely used intravenous benzodiazepine. It may be administered through intra-muscular and oral routes also. At pH less than 4, the imidazo ring of midazolam opens up resulting in excellent solubility in aqueous solutions. Following injection, at physiological pH, the imidazo ring closes resulting in a highly lipid soluble drug that readily crosses the Blood Brain Barrier. This ability is the trick that made intravenous diazepam obsolete.

Whenever a new drug is identified, clinical trials are made on animals to establish their activity, pharmacology and pharmacokinetics. Any side effect identified is simply reported. The reason for their side effects is not normally explored and such works are scanty. The clinical uses of a drug involve a compromise between its benefits and toxicities. There are many reports, which suggest that midazolam is neurotoxic and there are equal number of reports which counter these observations. Hence a detailed study on the interaction of midazolam with planar BLM is necessary to establish its non specific action.

In many events, binding of a drug to a lipid membrane has been related to biological effects of the drug. Many structural and functional changes in the biomembrane interfaces have been reported to be directly or indirectly associated with changes in interfacial polarity that affects the extent and stability of the electrostatic interactions at the charged membrane surface. Reports suggested that the drug-lipid interactions are also the cause for neurotoxicities. Issaku Ueda et al., and Deamer et al. have confirmed the non-specific action of anesthetics on lipid bilayers using various model systems such as liposomes and planar BLMs. The correlation between the responses of animals (in vivo studies), synaptic vesicles and artificial bilayers to anesthetics has demonstrated the validity of using model membranes to study anesthesia. Owing to complex structural and environmental factors associated with real membranes, procedures to form model bilayer membranes (BLMs) have been developed. Different model bilayer membrane systems include, planar BLMs, formed at an aperture which separates two aqueous compartments, metal supported BLMs, tethered BLMs and salt bridge supported BLMs(Sb-BLMs).

In the proposed work, the studies on the interaction of midazolam with sb-BLM was carried out to assess its neurotoxicities and was followed by the changes in electrical characteristics with drug dose. Sb-BLMs are preferred because of their stability as well as their ability to allow transport of molecules and ions or vice versa.

Photodegradation of recalcitrant organic water pollutants using graphene oxide - ZnO nanocomposite

Photocatalysis using solar energy is favorably expected to be an ideal "Green" technology for sustainable development. The photocatalytic activities of semiconductors such as TiO₂, ZnO, CdS are well established. Their activities are limited by the aggregation of particles and quick recombination of electron-hole pair. Graphene with its unique electronic properties can be used as a support of such semiconductor photocatalysts to enhance the catalytic activity by retarding the recombination

process. In this work we propose to synthesize ZnO–graphene oxide (GO) nanocomposites by solvothermal process and to study their photocatalytic behavior in the degradation of organic dyes in aqueous medium. Influence of various parameters such as effect of pH, nature of light source (UV/ visible), effect of inhibitor, effect of electron acceptor, effect of catalysts/ dye concentration and recyclability of the catalysts towards mineralization of the dyes are yet to be studied.

3.3. Doctoral research

S.No.	Candidate	Short Title / Area of Work	Supervisor with Designation & Institution	Year of Registration & Status
1	Mr.S.Rameshkumar	Drug Membrane Interaction and Electrochemistry	Dr.M.Kumaravel Professor & Head Dept. of Chemistry, PSGCT, Coimbatore	2010, In Progress
2	Mr.S.S.Subramanian	Nanocoatings for corrosion protection		2010, In Progress
3	Ms.R. Mohanapriya	Corrosion inhibitors		2010, In Progress
4	Ms.B. Lalithamani	Corrosion inhibitors		2010, In Progress
5	Ms.P.Thanapackiam	Corrosion inhibitors		2011, In Progress
6	Mr.D. Maruthamani	Photo degradation of dyes using RGO - semi conductor oxide composites.		2011, Completed
7	Mr.Lobamudra Bhattacharjee	Catalysis	Dr.J.Ravichandran Professor Dept. of Chemistry PSG CT	2015, In Progress
8	Mr.K R Aranganayagam	Ruthenium Supported ZnO Catalyst for Oxidation of Alcohols and Dye: Structural, Optical, Magnetic and Antibacterial Studies	Dr.S.Senthilkumaar Assistant Professor (Sr.Gr) Dept. of Chemistry, PSG CT, Coimbatore	2008, Completed
9	Ms.R.Gomathi	Drug delivery		2011, In Progress
10	Mr.V.Bala subramanian	TM doped ZnO		2011, In Progress
11	Mr.K. Sivaprakash	Coordination Chemistry	Dr. C. Theivarasu Assistant Professor (Sr.Gr) Dept. of Chemistry, PSG CT, Coimbatore.	2005, Thesis submitted
12	Ms.B. Swarnambigai	Organometallic Chemistry		2008, In Progress
13	Ms.N. Nalini	Organometallic Chemistry		2008, In Progress
14	Mr.R. Murugesan	Organometallic Chemistry		2008, In Progress
15	Ms.V. Geethalakshmi	Organometallic Chemistry		2009, In Progress
16	Ms.T. Indumathi	Organometallic Chemistry		2009, In Progress
17	Mr.V. Shanmugam	Organometallic Chemistry		2009, In Progress
18	Ms.V.Gomathi	Organometallic Chemistry		2013, In Progress
19	Mr.M. Obulichetty	Development of Supramolecular	Dr.D.Saravana bharathi	2012, In Progress

S.No.	Candidate	Short Title / Area of Work	Supervisor with Designation & Institution	Year of Registration & Status
		Complexes for Optical Applications	Assistant Professor (Sr.Gr) Dept. of Chemistry PSG CT	

3.3.1. Doctoral research – Abstract

Ruthenium Supported ZnO Catalyst for Oxidation of Alcohols and Dye: Structural, Optical, Magnetic and Antibacterial Studies

Supervisor : Dr.S.Senthilkumaar

Candidate : K R Aranganayagam

Nanocrystalline pure ZnO, Ru doped ZnO and (Ru-Mn) codoped ZnO were synthesized by sol – gel method via ultrasonication. The structural, optical properties of pure ZnO and Ru doped ZnO, $Ru_xZn_{1-x}O$ ($x = 0.002, 0.004, 0.006, 0.008, 0.01, 0.02, 0.03$) were studied using XRD, HRSEM, HRTEM, EDS, SAED, UV-Vis. spectroscopic technique. In order to understand the photocatalytic performance, the effective removal of dye was carried out in two different conditions, namely, time dependent absorption and effect of photocatalyst weight. The mineralization degree was found to be 30% and 43% respectively after irradiation for a period of 30 min., for ZnO and Ru:ZnO, respectively. The photocatalytic performance of Ru:ZnO was found to be more encouraging. In continuation with the above study, structural, optical, magnetic, catalytic and antibacterial activities of pure ZnO and (Ru-Mn) codoped ZnO, $Ru_xMn_yZn_{(1-y-x)}O$ ($x = 0.01, 0.02, 0.03$ and $y = 0.01$) were studied. Structural analyses were characterized through XRD, HRSEM, HRTEM and the elemental compositions were determined by EDS analysis. The catalytic oxidation of both primary and secondary alcohols in dichloromethane was carried out in the presence of 30% of hydrogen peroxide as co-oxidant at room temperature with the catalyst ZnO and (Ru-Mn) codoped ZnO was studied. The (Ru-Mn) codoped ZnO catalyst shows the high catalytic activity than the pure ZnO catalyst. The catalytic activity could significantly improve the ternary systems (Ru-Mn) codoped ZnO which is due to the redox support of Ru. In order to examine the bacterial activity *in vitro* antibacterial screenings of the pure ZnO and (Ru-Mn) codoped ZnO was tested against human pathogenic Gram +ve (*Staphylococcus aureus*) and Gram -ve (*Escherichia coli*) bacteria. The data clearly suggest, that the functional activity of catalyst and effective inhibition against human pathogenic are heavily influenced by the size of the nano particles.

Reduced Graphene Oxide supported Titanium dioxide hybrid Photocatalysts for Environmental applications

Supervisor : Dr.M.Kumaravel

Candidate : D.Maruthamani

A series of reduced graphene oxide /TiO₂ (RGOT) nanocomposites with different mass ratio of RGO were synthesized and highlighted its potential applications in dye degradation and microbial disinfection in the photocatalytic (PC) process. The results demonstrated that the addition of RGO in the composite remarkably enhanced the PC degradation efficiency. EIS measurement suggested that the incorporation of RGO could significantly decrease the electronic charge transfer resistance within the composite. The addition of RGO could inhibit the electron-hole recombination to large extent on the surface of the catalyst. Among the synthesized composites, RGOT-20 exhibits the highest activity which is about 31.8% greater than that of bare TiO₂. RGOT-20 exhibited excellent antibacterial property in comparison with other adopted samples. The bacterial inactivation rate was nearly achieved 100% at 50 min of irradiation with the catalyst dose of 150 mg/L. The regression coefficient (R^2) of 0.9058 indicates that the model prediction fitted well with the observed results. The predicted and observed degradation efficiencies are 87.5% and 88.2%. The presence of auxiliary

chemicals such as H₂O₂ and K₂S₂O₈ increased the percent degradation; in contrast the presence of CO₃²⁻ and Cl⁻ ions inhibits the degradation efficiency of the catalyst due to the hydroxyl radical and hole scavenging property. The low cost of GO and TiO₂, ease of synthesis, commendable recyclability and its effective degradation and disinfection properties indicate that RGOT-20 is a promising candidate in water purification process.

3.4. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
1	Dr.S.C.Murugavel	Various academic institutions and industries	DSC studies	0.05
2	Dr.D.Maruthamani	Various academic institutions and industries	Calorific analysis	0.02
3	Dr.M.Kumaravel Mr.S.Rameshkumar Mr.S.S. Subramanian	Various academic institutions and industries	Aluminum alloys Corrosion	0.08
4	Dr.M.Kumaravel Mr.S.Rameshkumar Mr.S.S. Subramanian	Various academic institutions and industries	EIS and Electrochemical Polarisation Studies	0.04
5	Dr.M.Kumaravel Mr.S.S. Subramanian	Various academic institutions and industries	Corrosion of A-304 Grade Stainless steel	0.02

3.5. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	GRD library	4558	1052	437	-	06	-
2	Department library	58	-	-	-	-	-

3.6. Board of studies

S. No.	Date	Agenda	External experts
1	13.06.2015	<ul style="list-style-type: none"> To review the existing chemistry subjects of 2015 regulation. Introduction of new electives for UG/PG and research programs. Introduction of one credit courses for UG/PG programs. Discussion of 1st and 2nd semester chemistry syllabus 	<ol style="list-style-type: none"> Dr. K. Shanthi Professor, Department of Chemistry Anna University, Chennai Dr.N.Rajendran Professor Department of Chemistry Anna University, Chennai

3.7. Research publications

3.7.1. Papers published in international journals

1. D.Saravanabharathi, M.Obulichetty, S.Rameshkumar, M.Kumaravel, "New 2-methyl benzimidazole based zinc carboxylates: Supramolecular structures, biomimetic proton conductivities and luminescent properties", *Inorganica Chimica Acta, ELSEVIER*, 437, 167-176 & 0020-1693, 1-10-2015.
2. D.Maruthamani, D.Divakar and M.Kumaravel, "Enhanced photocatalytic activity of TiO₂ by reduced graphene oxide mineralization of Rhodamine B dye", *Journal of Industrial and Engineering Chemistry, ELSEVIER*, vol.30, pp.33-43, 2015.
3. M.Muruganathan, M.Kumaravel, "Electrochemical Reduction of CO₂ using Cu Electrode in methanol/LiClO₄ electrolyte", *International Journal of Hydrogen Energy, Elsevier*, Vol-40, Pa-6740-6744, ISSN:0360-3199, 23 April 2015.
4. M.Muruganathan, "Degradation of P-Nitrophenol by thermally activated persulfate in soil system", *Chemical Engineering Journal, Elsevier*, Vol- 283, Pa-1357-1365, ISSN: 1385-8947, 1 September 2015.
5. D.Maruthamani, D.Divakar, M.Harshavardhan and M.Kumaravel, "Evaluation of bactericidal activity of reduced graphene oxide supported titania nanoparticles under visible light irradiation", *Journal of Chemical and Pharmaceutical Research*, vol.8 (1), 2016, pp.236-244.

3.7.2. Papers presented in international conferences

1. D.Maruthamani, M.Kumaravel, D.Divakar, S.Rameshkumar, S.Subramanian "In-situ electrochemical polymerization of RGOT /PANI composite film electrode for dye sensing applications", *Two-day International conference on Advances in Micro/Nanotechnologies for Biosensing Applications*, August 7-8th 2015. PSG Institute of Advanced Studies, Coimbatore

4. SUMMARY

S. No.	Activity	No.
1.	Sponsored research projects ongoing	3
2.	Sponsored research projects completed till date	7
3.	Doctorates produced till date	33
4.	Papers published in international journals	5
5.	Papers presented in international conferences	1

DEPARTMENT OF COMPUTER APPLICATIONS

ABOUT THE DEPARTMENT

The Department of Computer Applications conducts the Master of Computer Applications (MCA) programme, a unique programme envisioned by the Department of Electronics (DOE), Government of India in the 1980s. This was in anticipation of the rise of India as an Information Technology superpower and the impending manpower requirements that would be needed to handle the global and in-house demands. It was also realised that the prevalent education system was only churning out a miniscule percentage of graduates in Computer Science only from the Engineering Sciences stream which would in no way match the huge futuristic demands. The 3-year MCA programme was well conceived to target and train graduates from the Sciences, Arts and Humanities stream in the discipline of Computer Science and Applications as prospective IT Professionals.

PSG College of Technology was one among the 14 institutions selected by the DOE, across India, to run the programme. It was the second institution which has started the programme in India and the first in South India. The programme was inaugurated by (Late) Dr M G Ramachandran, former Chief Minister of Tamil Nadu. The programme is funded by the State Government and the first AICTE approval for the programme was obtained in 1995.

MCA Programme- Salient features

With a sanctioned strength of 60 students in a batch, the programme incorporates the following features:

- i) A well planned curriculum formulated by the Board of Studies in Computer Science with experts drawn from the industry and academia, to lead the heterogeneous inputs into the latest technologies which play a great role in dictating the industry's current needs and trends in computing
- ii) A judicious mix of Theory and Laboratory courses to strengthen the knowledge component of the programme
- iii) Two mini-projects at the end of the second and fourth semesters
- iv) Internship during the sixth semester
- v) Honing technical and managerial skills through development of software packages, presentation of seminars, communication skills laboratory, and on-line quizzes
- vi) All round personality development through organization of technical events, educational tours, sports, and cultural activities.

1. FACULTY

S.No.	Name and designation with highest qualification	e-mail Id	Year of joining	Areas of specialization
1	Dr A Chitra Ph.D Professor and Head	ctr@mca.psgtech.ac.in	1987	Compilers, Agent Technology, Computational Intelligence
2	Dr G A Vijayalakshmi Pai Ph.D, Associate Professor	paigav@mca.psgtech.ac.in	1984	Computational Intelligence, Computational Finance, Machine Learning, Pattern Recognition
3	Dr A Sankar Ph.D Associate Professor	dras@mca.psgtech.ac.in	1987	Software Engineering , Software Patterns, Data Structures, Discrete Mathematics

S.No.	Name and designation with highest qualification	e-mail Id	Year of joining	Areas of specialization
4	Dr R Manavalan Ph.D Associate Professor	vrm@mca.psgtech. ac.in	1991	Component based Software Engineering, Enterprise Computing
5	Mr V Venkatesan M.Phil Assistant Professor	vvv@mca.psgtech.ac.in	2000	Operating Systems, Software Engineering, Object Computing
6	Dr P Venketesh Ph.D Assistant Professor (SG)	pve@mca.psgtech. ac.in	2001	Computer Networks, Distributed Computing, Microprocessors
7	Ms A Manoranjitham MCA Assistant Professor (SG)	amr@mca.psgtech. ac.in	2001	Data Structures and Algorithms, Computer Networks, Network security
8	Ms A Kalyani M.Phil Assistant Professor (Sr.Gr)	akk@mca.psgtech.ac.in	2001	Computer Networks, Mobile Computing, Operating Systems.
9	Ms N Geetha MCA Assistant Professor (Sr.Gr)	sng@mca.psgtech.ac.in	2006	Wireless Networks
10	Ms J Gowri Thangam MCA Assistant Professor (Sr.Gr)	jgt@mca.psgtech.ac.in	2008	Data mining
11	Ms M Subathra M.Phil Assistant Professor (Sr.Gr)	msa@mca.psgtech. ac.in	2008	Data mining, OOPS
12	Ms S Bhama MCA Assistant Professor (Sr.Gr)	sba@mca.psgtech. ac.in	2007	Software Engineering, Data Mining, OOAD and DBMS
13	Ms N Rajeswari MSc Assistant Professor (Sr.Gr)	nrj@mca.psgtech.ac.in	2005	Multimedia, Web Technologies, Software Engineering
14	Mr C Sundar MCA Assistant Professor	csr@mca.psgtech.ac.in	2010	Web Technologies, Web Services, DBMS, Object Oriented Programming, Optimization Techniques
15	Ms A Mohanapriya MCA Assistant Professor	amp@mca.psgtech. ac.in	2011	Digital Electronics, Operating Systems
16	Ms D Maria Priscilla MCA Assistant Professor	dmp@mca.psgtech. ac.in	2008	Data Mining, Data Structures and algorithms, Programming Languages, Software Engineering
17	Ms A S Aarthi Mai MSc (CS & IT), M.Phil Assistant Professor	asa@mca.psgtech. ac.in	2006	Computer Organization, Operating Systems
18	Ms B Kalpana M.Sc M.Phil(Ph.D) Assistant Professor	bka@mca.psgtech. ac.in	2015	Data Mining, DBMS

2. FACULTY DEVELOPMENT

2.1. Higher study

S. No	Name of faculty	Programme	Year of joining & status
1	Mr V Venkatesan	Ph.D	2008, Thesis Submitted
2	Ms N Geetha	Ph.D	2010, In progress
3	Ms J Gowri Thangam	Ph.D	2013, In progress
4	Ms M Subathra	Ph.D	2008, Thesis Submitted
5	Ms S Bhama	Ph.D	2010, In progress
6	Ms B Kalpana	Ph.D	2008, completed

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.A.Chitra Ms.N.Geetha Mr.C.Sundar	Conference on Emerging Technologies and its Applications in Computers ETAC - 2016	-	01.04.2016 - 02.04.2016
2	Dr.A.Chitra	Workshop on" High Performance Computing"	CDAC and Department of Computer Applications PSG CT	12.08.2015 - 13.08.2015
3	Ms.D.Maria Priscilla	Introduction to iOS programming using OBJECTIVE-C	-	19.08.2015 - 21.08.2015, 25.08.2015 - 27.08.2015 & 31.08.2015

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Faculty Name	Topic	Organized by	Duration
1	Ms.J.Gowrihangam	TEQIP-II sponsored workshop on "Creative Teaching"	Educational Centre, PSG CT	11.04.2015
2	Ms.A.Kalyani Ms N.Rajeswari Mr C.Sundar	ISTE STTP on " Introduction to Design of Algorithms"	Indian Institute of Technology Kharagpur and Department of Information Technology, PSG CT	27.04.2015 - 30.05.2015
3	Ms.A.S.Aarthi Mai	ISTE STTP on "Technical Communication"	Indian Institute of Technology, Bombay and Department of English, PSG CT	08.10.2015- 11.12.2015
4	Ms.N.Geetha Dr.B.Kalpana	Workshop on "Parallel Programming – Basics"	Calligo Technologies, Department of CSE, PSG CT	26.06.2015

S.No.	Faculty Name	Topic	Organized by	Duration
5	Ms.A.Kalyani	Short Term course on “ Development and Challenges in Wireless Networks”	AICTE and organized by Coimbatore Institute of Technology	28.12.2015 - 03.01.2016
6	Mr.V.Venkatesan	Workshop on A short hands-on training course on “Internet of Things”	IIT Research Park, Chennai conducted by ERNET India	27.01.2016 - 29.01.2016
7	Mr.V.Venkatesan	Workshop on “ The Art of Teaching Computer Programming”	PSG CARE organized by PSGIM	06.02.2016

2.4 Faculty involvement in other activities

S.No	Name of faculty	Activity / Role	Organization
1	Dr A Chitra	Secretary	Advanced Computer and Communications Society, Coimbatore Chapter
2	Dr G A Vijaya lakshmi Pai	Member (Nominated)	Computational Finance and Economics Technical Committee, IEEE Computational Intelligence Society, 2016
		Member (Nominated)	IEEE Society on Systems, Man and Cybernetics Technical Committee on Soft Computing, 2016
		Member	Association for Computing Machinery (ACM), 2016
		Reviewer	IEEE Transactions on Fuzzy Systems
		International Programme Committee Member	2016 Dukes Forest Conference, North Carolina, USA, Nov 11-13, 2016
		International Programme Committee Member	2016 IEEE Symposium on Computational Intelligence for Financial Engineering and Economics, (IEEE Symposium series in Computational Intelligence, 2016), Athens, Greece, Dec 6-9, 2016
		International Programme Committee Member	2016 4 th International Symposium on Computational and Business Intelligence (ISCBI 2016), Olten, Switzerland, Sept. 5-7, 2016
		International Programme Committee Member	International Programme Committee, 2016 4 th International Symposium on Computational and Business Intelligence (ISCBI 2016), Olten, Switzerland, Sept. 5-7, 2016
3	Dr.A.Sankar	Board of Studies in Computer Science (MCA), Bharathiar University Nominee	Nallamuthu Gounder Mahalingam College, Pollachi

3. DEPARTMENT ACTIVITIES

3.1 Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1	Investigation of energy efficient routing for habitat monitoring leading to conservation of wild life	Ms N Geetha	UGC, New Delhi	April 2014, In progress	3 years	3.60
2	An intelligent system for automatic supply of fertilizers for green house environment	Dr.A.Chitra	DST	March 2015 , In Progress	3 years	24.48

3.1.1. Sponsored research activities – Abstract

Investigation of energy efficient routing for habitat monitoring leading to conservation of wild life

The conservation of wildlife is a major concern in day to day world. Habitat monitoring using the wireless sensor network gained its importance in modern world. The elephant is one of the wild animals becoming extinct due to human-animal conflict. The project work aims at proposing an energy efficient routing protocol for habitat monitoring which could reduce human-animal conflict. The protocol can be simulated, tested and could be deployed in the environment with suitable network model.

The main objectives of the project includes

- The survey of forest borders of Tamil Nadu.
- Developing a network model for monitoring intrusion of elephant into human shelters.
- An energy efficient routing protocol to efficiently transfer data from forest border to server.

Currently two research works were published in conferences. The proposed routing protocols are to be tested in a test bed which is developed using sensor network.

An intelligent system for automatic supply of fertilizers for green house environment

Green house technology is a technique of growing plants under favorable conditions regardless of any climate condition. The green house production will be highly profitable for farmers as it will reduce economic losses incited by soil borne pathogens and highly remunerative for high value vegetable crops. The advantages of green house environment include maximum crop production with existing land, productivity regardless of seasons, best usage of water and fertilizers.

The plants in green house environment requires sound fertilizer management. Excessive Supply of fertilizers supplied results in nutrient leeching from the roots and lead to wastage. So, there is a need for a system that can handle the supply of fertilizer to the plant automatically which can reduce the wastage and also maintain the nutrition balance. The major soil parameters are taken into account in balancing the nutrition and supply of the fertilizer. Electric Conductivity (EC) and pH play a major role in the productivity of the crops growth. High EC will reduce the nutrient absorption in the root whereas, pH determines soil capability edible for plant growth which is varied based on the nature of plant. The parameters are constantly monitored by the automatic system and the amount of fertilizer to be sprayed is determined.

Current Progress

Green House is constructed with perforated green cover which is transparent and protects the plant from dust and sunshine. The Green House is cultivated with several flowering and spinach in order to

make an analysis on the effect of the parameter such moisture, electric conductivity, pH of the soil, temperature and humidity. To enhance plantation and culturing the green house several visits to nursery and agro industries is made to learn about soil type, natural fertilizers, terrace gardening, productivity, vermicompost, soil-less cultivation, agro bag based cultivation, effect of fertilizers and reusability, role of NPK in green house.

A brief survey is carried on the fertilizer supply system which is published in the reputed journal. Several inference are made such as setting the proper value for fertilizer feeder, a mixer where fertilizer is mixed with water and nutrient and sprayed efficiently over the plant, determining and maintaining the green house with sensor feedback, enhancing the green house through remote access and control. At present, a small sprayer model is designed to collect the data from the sensor and supply the fertilizer accordingly. The model is bridged between two towers above the plants initially so that it sprays the default level of fertilizer to the plant, then periodically measures the value from the sensor data and sprays fertilizer appropriately. The model also has a mixing chamber so where the fertilizer is mixed with water and sprayed to the plant automatically. The green house is provided with automatic controlled drip irrigation to maintain the moisture.

Future Implementation

Green house is to be extended with weather station, rain drop sensor, aeration fans to control the entire green house with other external factor that affect the growth of the plant in the green house. The automatic fertilizer spray is capable of rotating 360 degree and spraying the fertilizer with a special mixture from the fertilizer tank that is mixed according to the requirement of the plant. The automatic system will determine the fertilizer requirement and sprayer will locate the exact location of the plant and spray only to the particular plant. This automatic system is integrated with wireless mote which is capable of creating a network cluster among the other nodes. The wireless mote reduces the complexity of underlying the wire between the sensor and the controller.

The system controls the drip irrigation based on the feedback from the moisture sensor. The sprayer mixes the fertilizer and maintains the period of spraying and also calibrates the addition in corresponding to the soil nutrients. The system updates information to the remote server which provides all the necessary information in a database. The server is designed with GUI that helps to create graph and table which can be used for analysis. The system generates alert signal in case of any malfunctioning of the system. So, one can access, monitor and control the system from remote location with prescribed identity.

3.2. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Ms D Indumathi	Intelligent Searching	Dr.A.Chitra Professor, Department of Computer Applications, PSG CT, Coimbatore	2008, Synopsis Submitted
2	Ms G Anupriya	Machine learning techniques		2008, completed
3	Mr NandKumar Nair	Soft computing		2008, Synopsis Submitted
4	Mr S G Shiva Prasad Yadav	Wireless Networks		
5	Mr R Engels	Distributed systems		2012, In progress
6	Mr R Marx	Cognitive science		2012, In progress
7	Mr G R Kanaga Chidambaresan	Wireless Sensor Networks		2013, In progress
8	Ms V Mahima	Wireless Sensor Networks		2014, In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
9	Mr V Venkatesan	Empirical Study on Pair Programming in the Academic Environment using Agile Software Development Methodologies for Assessing and Achieving Quality Learning	Dr A Sankar Associate Professor Department of Computer Applications PSG CT, Coimbatore	2008, Thesis submitted
10	Mr N Mohanraj	Investigations on the implementation of distributed pair programming in Academic Institutions		2008, Thesis submitted
11	Mrs B Leeladevi	Classification of Web Page content		2008, In progress
12	Mr M Dominic Savio	Clustering Algorithms Investigations		2008, completed
13	Ms N Geetha	Investigation of Routing Algorithms in MANET		2010, In progress
14	Ms N K Sreeja	Classification using pattern Matching and Rule Mining		2010, Open Defense Viva is to be conducted
15	Ms J Gowri Thangam	Investigation on Link Prediction in Social Networks	2013, In progress	
16	Ms M Subathra	Design and development of machine learning and soft computing based techniques for name disambiguation	Dr.R.Nedunchezian, Director Research and Vice Principal, Kalaingar Karunanidhi Institute of Technology, Coimbatore	2008, Thesis submitted
17	Ms S Bhama	Cloud Service Discovery	Dr.G. R. Karpagam, Professor, Department of CSE, PSGCT, Coimbatore	2010, In progress
18	Ms.B.Kalpana	A unified automated framework for data mining - An agent based perspective	Dr.V.Saravanan	2008, completed

3.2.1 Doctoral Research Abstract

Machine learning techniques

Supervisor : Dr.A.Chitra

Candidate : Ms G Anupriya

The wide applicability as well as the challenging nature of the task has inspired active research in this domain by both academic and industry research groups. This research focuses on the design of machine learning based systems for two core areas related to sentence-level Paraphrasing, namely

Recognition and Extraction. In this thesis, four different machine learning based approaches have been adopted for sentence level paraphrase recognition. In the first approach, a Radial Basis Function Neural Network (RBFNN) has been designed to operate on lexical, syntactic and semantic features extracted directly from the input sentences to identify paraphrases. The RBFNN based system has exhibited marginal improvement over existing Support vector Machine (SVM) Paraphrase Recognizers while incurring additional training time. Wrapper-based Feature selection using Genetic Algorithms was employed to identify the best set of features. When evaluated on the MSRPC and extended KMC, the system was found to yield better performance with the added advantage of using only half the original number of features.

Translation of the input sentences to an intermediate representation enables easier matching and is therefore expected to simplify the Paraphrase Recognition process. Two such intermediate representations have been explored in this research. In the UNL based Paraphrase Recognition (LJNLPR) system, the UNL components of the two sentences were matched to generate features. The second intermediate representation employed was Predicate Argument Structures (PAS) which convey semantic roles and therefore enable deeper matching of the input text. The PAS based Paraphrase Recognition system (PASPR) works by first pairing the predicate-argument tuples and segregating the sentences based on the presence of paired, loosely paired and unpaired tuples.

Fuzzy Hierarchical Clustering approach has been used to design a sentence. Sentences describing the same actions have been grouped using Fuzzy agglomerative clustering based on verbs. The proposed Paraphrase Recognition and Extraction systems have been deployed in various practical applications. A Short Answer Evaluation system which considers correct student answers as paraphrases of the reference answer has been developed. A scheme for clustering news headlines has been developed by using the proposed Paraphrase Extraction system and was found to perform satisfactorily on a sample collection of Google news headlines.

Investigations on the design of efficient algorithms for maximal biclique enumeration in symmetric context

Supervisor: Dr. A. Sankar

Candidate: Mr M Dominic Savio

This thesis work addresses the following problems: 2D Maximal Biclques Mining in '1' Grouping Context and 2D Maximal Biclques Mining in '0' Removal Context from a 2-dimensional Boolean symmetric adjacency matrix, 3D Maximal Biclques Mining in '0' Removal Context, and 3D Maximal Biclques Mining in '1' Grouping Context from a 3-dimensional Boolean symmetric adjacency matrix. An algorithm named TWINBLADE is proposed for efficient enumeration of maximal bicliques mining in '1' grouping context from two dimensional boolean symmetric adjacency matrix. The proposed algorithm exploits the symmetric property of input to reduce the search space by larger extent, and prune the duplicate patterns completely. Here, grouping '1' contained row-columns strategy is adopted to generate the patterns.

Two algorithms named MD-Miner and MD-Miner+ are proposed for efficient enumeration of maximal bicliques mining from two dimensional boolean symmetric adjacency matrix in '0' removal context. Both the algorithms operate in '0' removal strategy. This strategy is adopted with the help of cutter generation. A new enumeration strategy and a novel right cutter constraint technique are introduced. MD-Miner algorithm applies the right cutter constraint technique on left generated node, whereas MD-Miner+ applied on all the leaf nodes. Experimental results show the better performance of these algorithms for highly dense datasets. The pros and cons of each of the algorithms are clearly described.

An algorithm named Cubeminer-MBC* is proposed for efficient enumeration of maximal bicliques mining from three dimensional boolean symmetric adjacency matrix in '0' removal context. For eliminating '0' containers, cutter generation strategy is introduced. By eliminating '0' contained row-columns with user specified minimum size constraints for all the dimensions, the proposed algorithm introduces row-column equal – column removal strategy and closed column set checks to eliminate

the duplicate patterns completely. Experiment results show that the proposed algorithm reduces the running time by larger extent.

An algorithm named S-Datapeeler is proposed for efficient enumeration of maximal bicliques mining in '1' grouping context from three dimensional boolean symmetric adjacency matrix. The major challenge lies in the elimination of all duplicate patterns and it is accomplished with the help of a novel element selection technique and subtree pruning strategy. The experiments involving several synthetic datasets show the effectiveness of the novel element selection technique in terms of reduction in search space by 50 percent and massive reduction in running time of the algorithm.

A unified automated framework for data mining - An agent based perspective

Supervisor: Dr. V. Saravanan

Candidate: Ms.B.Kalpana

Industry and services business sector generate huge amount of data in their operational environment due to the development of user friendly computer technology with expanded storage capacity and high transmission speed. The growth of web based user interactive e-commerce applications and social networks applications also has generated huge amount of data regarding nature, behavior and preference of innumerable individuals. Given this huge volume of data, useful information can be extracted with the help of right data mining techniques to further business performance. In data mining, various domain specific tools, techniques and approaches to cater to the need of specific end users have been developed. One of the foremost areas of research in data mining is to develop a common framework for unifying different data mining tasks such as clustering, classification and association. A unified framework for automated data mining will help end users who have access to large data but do not possess the necessary skill or knowledge to choose the right mining technique.

This research considers automating the classification process with the help of software agents in overall context of development of a unified framework for automated data mining. Software agent based approach helps in automating the data mining process such that an expert user of the system can accomplish the process of mining in lesser time, whereas a novice user can get help from recommendation agent to mine the data. The purpose of the research is to classify a given data set with minimum user interaction. The automated agent based approach is utilized to achieve this. The classification task accomplished based on the new approach has showed a high accuracy rate than existing conventional methods.

3.3. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	GRD Library	34,452	2027	2760	9	39	-
2	Department Library	539	-	-	-	-	-

3.4. Board of studies

S. No	Date	Agenda	External experts
1	02.04.2016	<ul style="list-style-type: none"> • Introduction of new electives • Identify the skills that are necessary for the students to meet the requirements of industry and electives/one credit courses ,if necessary to effect the same 	<p>Academic experts</p> <p>Dr. P.Latha, Associate Professor and Head, Department of Computer Science and Engineering,GCT,Tirunelveli</p> <p>Dr.S.R.Balasundaram, Associate Professor, Department of Computer Science,NIT,Tiruchirappalli</p> <p>Dr.N.N. Murulidhar Professor and HoD Department of Mathematical and Computer Sciences NIT, Surathkal</p> <p>Industry Experts</p> <p>Mr.Rangan Devarajan, Director-Solution Delivery, Technotreee,Bangalore</p> <p>Ms. S.Pregna Associate Sr.Manager Amazon,Bengaluru Software Development (I) Pvt.Ltd , HSR Layout, Bangalore</p>

3.5 Research publications

3.5.1 Papers published in international journals

1. A Chitra and Engels Rajangam,"Graph Models for Knowledge Representation and Reasoning for Contemporary and Emerging Needs – A Survey", *International Journal of Information Technology and Computer Science(IJITCS)*, Vol.8, No.2, pp.14-22, 2016.
2. A Chitra, G Anupriya and Rajkumar," Paraphrase Extraction using Fuzzy Hierarchical Clustering Soft Computing", *Applied Soft Computing(Elsevier)*, Vol 34,Page 426-437, 2015
3. A Chitra, S G S Yadav and C LDeepika, "Reviewing the process of data fusion in wireless sensor network: A Brief Survey",*International Journal of Wireless and Mobile Computing*, Vol.8,Pg130-140, 2015
4. A Chitra, G Anupriya and Rajkumar,"Plagiarism Detection Using Machine Learning Based Paraphrase Recognizer", *International Journal of Intell Systems*, 2015
5. A Sankar and V Senthil kumaran, K.Kiruthikaa,"Group recommendation in online learning environment using community detection", *International journal Computational Systems Engineering*, Vol.2 No.1 2015
6. A Sankar and N K Sreeja have published a paper on "One time enumeration of maximal biclique patterns from 3 D Symmetric Matrix", *International Journal of, WSEAS Transactions on Information Science and Applications*, Vol No 12(7) Page 61-67, 2015
7. A Sankar and N KSreeja ,"A Hierchical Heterogeneous ant colony optimization based approach for efficient action rule mining," *Swarm and Evolutionary Computation*, Elsivier Press, 2016
8. A Sankar and V. Venkatesan, "Knowledge sharing through internalization process of pair programming in student's academic projects", *Journal of Engineering and Applied Sciences*,Vol. 10 No. 22,December 2015.

9. A Sankar and V. Venkatesan, "Investigation of Student's Personality on Pair Programming to Enhance the Learning Activity in the Academics", *Journal of Computer Science*, Vol. 10, pp.2020-2028.
10. A Sankar and Mohanraj, A.Senthilkumaran, "Enhancing learning experience of e-learners in laboratory courses", *Journal of Computer Science*, Vol. 10, pp.2020-2028.
11. M.Subathra and R.Nedunchezain, "A Novel Fuzzy model to identify closeness for Alias Detection", *Indian Journal of Science and Technology*, October 2015.
12. M.Subathra and R.Nedunchezain, "An improved Alias Classification using Logistic Regression with Particle Swarm Optimization", *Indian Journal of Science and Technology*, October 2015.

3.5.2 Papers presented in international conferences

1. A.Sankar, R V Nataraj and Michaelraj Dominic Savio, "Removal of mirror bicliques from symmetric matrix", *Proceedings of the ACM International Conference on Interdisciplinary Advances in Applied Computing*, Amrita university, Coimbatore, Article no 43, 2015.
2. N Geetha, A Sankar and A Ashwin, "Human Animal Conflict – Effective Detection using Energy Harvesting Sensor Networks", in *proceedings of International Conference on Advances in Electronics and Computer systems*, 167-172, June 2015.

4. STUDENT ACTIVITIES

4.1. Student strength

S. No.	Class	No. of students
1	MCA I year	52
2	MCA II year	69
3	MCA III year	66

4.2. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1	Login 2015	Mr. Vijay Sankar Athmalingam	230	27.09.2015 - 28.09.2015
2	Industry Expert Interaction	Mr. Manoj Sundaram Team Lead - APAC (Big Data - Professional Services) at Intel Corporation	50	03.02.2016
3	Alumni Reunion	Dr. G. V. Krishna reddy, Former Head, Department of Mathematics and Computer Applications	30	27.02.2016 - 28.02.2016
4	Minds	Dr. G. Raghuthaman, HOD, Psychatry department, PSG IMS&R	51	18.01.2016- 25.02.2016
5	Thiran	Mr. R. Valliappan, Director, EZVidhya	250	01.01.2016

4.3 Awards won by students

S.No	Name of students	Roll No.	Event	Award	Awarded by	Date
1	Varshini Rajagopal	14MX48	Digitalization	1 st Place	Version'15, NIT, Trichy	23.08.2015 & 24.08.2015
2	B. Lokesh	14MX21	Digitalization	1 st Place		
3	R. Akilandeshwari	14MX02	Fusion	1 st Place		
4	Varshini Rajagopal	14MX48	Fusion	1 st Place		
5	S. Bharanidharan	14MX09	Cabalistic	1 st Place		

S.No	Name of students	Roll No.	Event	Award	Awarded by	Date		
6	B. Lokesh	14MX21	Cabalistic	1 st Place				
7	S. Bharanidharan	14MX09	Psycroton	1 st Place				
8	B. Lokesh	14MX21	Psycroton	1 st Place				
9	Varshini Rajagopal	14MX48	Thunderstruck	2 nd Place				
10	B. Lokesh	14MX21	Thunderstruck	2 nd Place				
11	R. Bahrudeen	14MX07	Thunderstruck	2 nd Place				
12	R. Bahrudeen	14MX07	Fishing expedition	2 nd Place				
13	B. Lokesh	14MX21	Impressio	2 nd Place				
14	R. Bahrudeen	14MX07	Impressio	2 nd Place				
15	R. Akilandeshwari	14MX02	Impressio	2 nd Place				
16	S. Bharanidharan	14MX09	Perk up	2 nd Place				
17	B. Lokesh	14MX21	Perk up	2 nd Place				
18	S. Bharanidharan	14MX09	Coditorium	1 st Place			Cyberfest, CIT, Coimbatore	29.01.2016
19	N. Arumuga Prabu	14MX05	Coditorium	1 st Place				
20	N. Vignesh	14Mx50	Pikipedia	1 st Place				
21	V. Hareesh	15MX74	Webgeek	1 st Place				
22	F. Seeni Shaikabdullah	15MX81	Webgeek	1 st Place				
23	A. Vijaya Prasanthu	14MX52	Webgeek	2 nd Place				
24	M. Gowthaman	14MX13	Webgeek	2 nd Place				
25	N. Vignesh	14MX50	Pic-Art	2 nd Place				
26	V. Anitha	15MX03	Paper Presentation	1 st Place	Gobi Arts, Gobichettipalyam	13.02.2016		
27	N.B. Haeshmietha	15MX12	Quiz, Paper Presentation	1 st Place				
28	G. Saravanan	15MX34	Quiz	1 st Place				
29	P. Palanisamy	15MX20	Web Design	2 nd Place	Code Busters Krishnammal College, Coimbatore	29.02.2016		
30	R. Janani	15MX15	Debugging	1 st Place				
31	N.B. Haeshmietha	15MX12	Debugging	1 st Place				

4.4. Final year project work

S.No.	Roll no	Students name	Title	Guide name	Industry / institute associated
1	13MX01	Abdul Kalam Ashad A	METROZONE - An Exclusive Community App for the residents of Metrozone	Ms N Geetha	Appiness Interactive Pvt Ltd, Bengaluru
2	13MX02	Amirtha varshyny K	Implementation of Information system Chitragupt in Gneisys framework	Mr V Venkatesan	Webstars, Coimbatore
3	13MX04	Anishkumar B	Improvements to Continuous integration and Continuous Deployment for Aruba Central	Dr A Chitra	Aruba Networks, Chennai

S.No.	Roll no	Students name	Title	Guide name	Industry / institute associated
4	13MX05	Arunkumar G	Professional Network for Sports	Dr A Sankar	PlayBig, Chennai
5	13MX07	Darsini R	Model Management Framework	Dr P Venketesh	Xoanon Analytics, Chennai
6	13MX08	Deepa M	Analysis of Incident Tickets using Hadoop	Ms A Kalyani	Robert Bosch Engineering and Business Solutions Pvt Ltd, Coimbatore
7	13MX09	Dhivya K S	SKYRING - Unified Storage Manager (Red Hat Storage Console)	Dr R Manavalan	Red Hat India Pvt. Ltd, Bengaluru
8	13MX10	Divya V	Automation of Access Points Level Features in Aruba Central	Dr A Chitra	Aruba Networks, Chennai
9	13MX11	Gayathri S	Data Insights in Retail and Customer Analytics for a major Sports Retailer	Dr G A Vijayalakshmi Pai	Akira Consultancy, Bengaluru
10	13MX12	Geetha T	Staff Leave Management System	Ms A S Aarthimai	PSGCT, Coimbatore
11	13MX13	Gowri manohari P	Profitable valuation method for consumerism in cloud computing	Ms A Kalyani	Sans Pareil IT Services Pvt Ltd, Chennai
12	13MX14	Gowtham S	Red Hat Storage Console	Dr G A Vijayalakshmi Pai	Red Hat India Pvt Ltd, Bengaluru
13	13MX15	Hemashri A V M	Auto Design Service Qualification	Ms A Manoranjitham	KLA-Tencor, Chennai
14	13MX16	Indhu M	ESSITRACK - An order tracking iOS application for eye lens vendors	Ms N Geetha	Appiness Interactive Pvt Ltd, Bengaluru
15	13MX17	Jeyasri S	Asset Management System	Mr V Venkatesan	PSGC T, Coimbatore
16	13MX18	Kalaivani M	Automation and Live Migration of Network Management Tool	Dr P Venketesh	Payoda Technologies Coimbatore
17	13MX19	Kannan S	Renumeration and Inhabitance Computation	Mr V Venkatesan	PSG SDC, Coimbatore
18	13MX20	Karthick D	Online Circular	Ms S Bhama	PSGC T, Coimbatore
19	13MX21	Karthik A R	Mobile Application for Remote Administration of a Server	Ms N Rajeswari	Infosys, Mysore
20	13MX22	Karthikeyan B	Automation Tool	Ms A Manoranjitham	YuMe Advertising

S.No.	Roll no	Students name	Title	Guide name	Industry / institute associated
					Pvt Ltd, Chennai
21	13MX23	Kavya S	Automation and Standardization of basic Model Cloning and Implementation of Scalable EAV Model in Gneisys Framework	Mr C Sundar	Webstars, Coimbatore
22	13MX24	Krishnan R	Automation Tool For YFP	Ms D Maria Priscilla	YuMe Advertising Pvt Ltd, Chennai
23	13MX25	Malathi A	Test Automation Suite for GOPADDLE 2.0	Dr A Sankar	Bluemic Technologies Pvt Ltd, Bengaluru
24	13MX26	Manickavalli M	RBcm Packaging and Central Inventory Services	Ms A Kalyani	Robert Bosch Engineering and Business Solutions Coimbatore
25	13MX27	Manoj B	Development and Implementation of Basic E-Commerce model for single and multiple vendors in Gneisys Framework	Ms A S Aarthimai	Webstars, Coimbatore
26	13MX28	Mathumathi M	Material Purchase and Stock Maintenance	Ms N Rajeswari	PSG SDC, Coimbatore
27	13MX29	Mohana priya M	Supply chain - Supply Demand Enhancements	Ms S Bhama	Texas Instruments India Pvt Ltd , Bengaluru
28	13MX30	Mohanraj T	Hospital Information Portal	Mr V Venkatesan	Appiness Interactive Pvt Ltd, Bengaluru
29	13MX32	Parthiban M	Pehchaan - Customized Mobile API services for web based Ecommerce solutions	Ms A Manoranjitham	Suraj Technologies Coimbatore
30	13MX34	Prasanth V	Self Service Portal	Mr C Sundar	Amazon, Bengaluru
31	13MX35	Prasanthi P	Android Application for Sports	Dr A Sankar	PlayBig, Chennai
32	13MX36	Rajashree R	Continuous Integration framework for IBM Power Systems	Dr R Manavalan	IBM India Pvt Ltd, Bengaluru
33	13MX37	Ramesh R	DutyKnocks	Dr G A Vijayalakshmi Pai	Infibeam, Bengaluru

S.No.	Roll no	Students name	Title	Guide name	Industry / institute associated
34	13MX38	Ramvignesh M	Test Automation Devnet Safety Software	Ms M Subathra	Hospira Healthcare India Pvt Ltd, Chennai
35	13MX39	Sapthagirinathan D	Web based integrated development environment for programming contest	Ms N Rajeswari	Infosys, Mysore
36	13MX40	Saradha Swathi G	Engineering Dashboard - RTC and Automation	Ms A Manoranjitham	KLA-Tencor, Chennai
37	13MX41	Satha Sivam R	Automation Tool For YFA	Ms D Maria Priscilla	YuMe Advertising Chennai
38	13MX42	Sathish kumar M	WALKAROO E-commerce Portal	Ms M Subathra	Appiness Interactive Pvt Ltd, Bengaluru
39	13MX43	Shanthi S	Development and Implementation of Bootstrap Based Content Delivery/ Content Management System Using Gneisys Framework	Mr C Sundar	Webstars, Coimbatore
40	13MX45	Sivanantham G	JS Plugin Framework for SaaS Application	Ms S Bhama	ChargeBee Technologies Pvt Ltd, Chennai
41	13MX46	Sriram N	TRIZZIO	Ms J Gowri Thangam	Appiness Interactive Pvt Ltd, Bengaluru
42	13MX47	Sudharsan S	RBCM Packaging and Central Inventory Services - A Centralized Approach For Inventory Solutions	Ms A Kalyani	Robert Bosch Engineering and Business Solutions Coimbatore
43	13MX48	Suriya Lakshmi V	Financial Saving And Investment Calculator	Ms M Subathra	Appiness Interactive Pvt Ltd, Bengaluru
44	13MX49	Tamilarasan N	ESSITRACK	Ms N Geetha	
45	13MX50	Thangapriyaa V B	AROUNDME	Ms J Gowri Thangam	
46	13MX51	Uma Devi P	Automation and Improvements of D and F series of Gneisys Framework	Dr P Venketesh	Webstars, Coimbatore
47	13MX52	Vijaya lakshmi S	Mobile Waving	Ms J Gowri Thangam	Aadhityaa Infomedia solutions, Chennai

S.No.	Roll no	Students name	Title	Guide name	Industry / institute associated
48	13MX53	Yasar Arafath A	JOBSFORHER	Ms J Gowri Thangam	Appiness Interactive Pvt Ltd, Bengaluru
49	13MX54	Yogeshwari R	Integration of Financial System	Ms N Rajeswari	PSG SDC, Coimbatore
50	13MX55	Hamsaveni G	PEHCHAAN - Location, Database and Web Services	Dr A Sankar	Suraj Technologies Coimbatore
51	14MX71	Arulkkumaran N	Exploring Proper Resource for Retail Management	Ms S Bhama	Sans Pareil IT Services Pvt Ltd, Chennai
52	14MX73	Balasundari V	Protocentral E-Commerce Application	Ms A S Aarthimai	Circuitects Electronics Solution Pvt Ltd, Bengaluru
53	14MX74	Dhanalakshmi I	Billing Information System	Ms D Maria Priscilla	PSG IMSR, Coimbatore
54	14MX75	Dinesh G	R2R AIX Automation	Dr R Manavalan	IBM India Pvt Ltd, Bengaluru
55	14MX76	Hamsa Bhavani V	Automation of Client Level Features in Aruba Central	Dr A Chitra	Aruba Networks, Chennai
56	14MX77	Harini M	North America Point of Sales (NAPS)	Dr P Venketesh	Thorogood Associates India Pvt Ltd, Bengaluru
57	14MX78	Moni Sindhu S	INVISTA - SAP ERP Implementation for Manufacturing Enterprise	Dr. B. Kalpana	Deloitte Centre, Bengaluru
58	14MX79	Nandhini M	Enabling Core OS on Power Architecture	Dr R Manavalan	IBM India Pvt Ltd, Bengaluru
59	14MX80	Narendran S	Co-Clustering Information For Security Analysis	Ms A S Aarthimai	Sans Pareil IT Services Pvt Ltd, Chennai
60	14MX81	Praveena K	Out Patient Management System	Ms D Maria Priscilla	PSG IMSR, Coimbatore
61	14MX82	Raghul S	Static Code Analysis Tool using DSL	Ms M Subathra	Zoho Corporation Pvt Ltd, Chennai
62	14MX83	Rohini G	Internet of Things and its Application-Intrusion Detection System	Ms N Geetha	PSGCT, Coimbatore
63	14MX85	Saravana Kumar M	Automation of Calculating Award Points based on Faculty e-profile	Dr. B. Kalpana	PSG SDC, Coimbatore

S.No.	Roll no	Students name	Title	Guide name	Industry / institute associated
64	14MX86	Sembian K	IT Resource Management System	Dr. B. Kalpana	PSGCT, Coimbatore
65	14MX87	Tamilselvan S	An Effective System Based Sampling Model for Deduplication	Dr. B. Kalpana	Sans Pareil IT Services Pvt Ltd, Chennai
66	14MX88	Zainab Ummu Habeeba A	Pharmacy Inventory and Sales Maintenance System	Mr C Sundar	PSG IMSR, Coimbatore

4.5 Placement

S.No.	Name of company	Number of Students	Students placed		Package per annum(lakhs)
			Roll No	Name	
1	Thorogood Associates India Pvt Ltd	1	14MX77	Harini M	11
2	ChargeBee Technologies Private Limited	1	13MX45	Sivanantham G	6.5
3	Infibeam	1	13MX37	Ramesh.R	6.5
4	IBM India Pvt Ltd	2	14MX79	Nandhini M	6
			13MX09	Dhivya K S	
5	Deloitte Centre	1	14MX78	Moni Sindhu S	5.5
6	Zoho Corporation Pvt Ltd	1	14MX82	Raghul S	4.5
7	Payoda	1	13MX18	Kalaivani M	3.8
8	Tata Consultancy Services	8	13MX02	Amirthavarshyny K	3.5
			13MX04	Anishkumar B	
			13MX05	Arun kumar G	
			13MX15	Hemashri A V M	
			13MX17	Jeyasri S	
			13MX35	Prasanthi P	
			13MX55	Hamsaveni G	
			14MX86	Sembian K	
9	Infosys	4	13MX14	Gowtham S	3.3
			13MX21	Karthik A R	
			13MX39	Sapthagirinathan D	
			14MX73	Balasundari V	
10	Cognizant Technology Solutions	2	13MX47	Sudharsan S	3.3
			14MX76	Hamsa Bhavani V	
11	Accenture	12	13mx11	Gayathri.S	3.15
			14mx75	Dinesh G	
			13MX07	Darsini R	

S.No.	Name of company	Number of Students	Students placed		Package per annum(lakhs)
			Roll No	Name	
			13MX10	Divya V	
			13MX20	Karthick D	
			13MX22	Karthikeyan B	
			13MX27	Manoj B	
			13MX29	Mohanapriya M	
			13MX32	Parthiban M	
			13MX38	Ramvignesh M	
			13MX40	Saradha Swathi G	
			13MX51	Uma Devi P	

4.6. No. of students passed out

Year	PG	Year	PG
2002	54	2010	50
2003	60	2011	45
2004	58	2012	50
2005	54	2013	51
2006	49	2014	53
2007	48	2015	55
2008	48	2016	50
2009	57		

5. SUMMARY

S. No	Activity	No
1	Sponsored research projects ongoing	02
2	Sponsored research projects completed till date	02
3	Scholars pursuing doctoral research	19
4	Papers published in international journals	15
5	Papers presented in international conferences	02
6	Awards won by students	16
7	No. of. students passed out during 2015-2016	PG 50
8	No. of. students passed out till date	PG 782

DEPARTMENT OF ENGLISH

ABOUT THE DEPARTMENT

The Department of English, established in tandem with PSG College of Technology in 1951, has been rendering eminent service to the institution ever since its inception. The department holds the unique responsibility of enhancing the communicative ability of students and plays a vital role in equipping them to face the placement interviews. To serve this purpose, in addition to the course on English Language Proficiency for first year students, language electives such as Communication Skills for Engineers, Basic German, Basic French and Basic Japanese are offered. The curriculum has been designed in such a way that the students are moulded and trained to be professionals. The mission of the department is to create and implement adaptive curricula, to conduct training programmes in communication skills for students, and to help them communicate effectively using the English language.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Mr. Suresh Kumar S.P. ,M.Phil HoD & Associate Professor	sps@eng.psgtech.ac.in	1995	English and American Literature
2	Dr. G. Menaka, PhD Associate Professor	gmk@ eng.psgtech.ac.in	1996	English Literature
3	Dr. Suganthi S Kumar, PhD Associate Professor	sskr@ eng.psgtech.ac.in	2006	Linguistics
4	Dr. S. Sankarakumar, PhD Assistant Professor	ssk@ eng.psgtech.ac.in	2001	English Language Teaching
5	Dr.J. Prabhavathi , M.Phil(Eng), M.Phil(Edn), PhD Assistant Professor	jpv@ eng.psgtech.ac.in	2007	Education
6	Dr. R. Kalpana, PhD Assistant Professor (Sr.Gr)	rkp@ eng.psgtech.ac.in	1998	Applied Linguistics & English Language Teaching
7	Ms. A. Sivaranjani , M. Phil Assistant Professor (Sr. Gr)	asr@ eng.psgtech.ac.in	2008	Applied Linguistics & English Language Teaching
8	Ms. Lavanya R.S., M. Phil Assistant Professor (Sr. Gr)	rsl@ eng.psgtech.ac.in	2008	Fiction
9	Mr.R. Senthil Kumar, M. Phil Assistant Professor(Sr. Gr)	rsk@eng.psgtech.ac.in	2008	English Language Teaching
10	Ms. B. Priya, M.Phil Assistant Professor	bpr@eng.psgtech.ac.in	2015	English Language Teaching

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mr.Suresh Kumar S.P.	Ph.D	2007, (In progress)
2	Ms.A.Sivaranjani	Ph.D	2011, (In progress)
3	Mr.R. Senthil Kumar	Ph.D	2007, (In progress)

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Mr. Suresh Kumar S.P. & Dr.J. Prabhavathi	One Credit Course on "Corporate Communication"	-	17.10.2015, 18.10.2015& 19.10.2015
2	Mr. Suresh Kumar S.P. & Dr.J. Prabhavathi	One Credit Course on "Corporate Communication"	-	20.12.2016, 21.02.2016& 22.02.2016

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr. Sankarakumar	One week ISTE-STTP for Co-ordinators on Technical Communication	IIT Bombay	24.08.2015 - 29.08.2015
2	Ms. B. Priya	Workshop on Research Enhancement	Department of Computer Application PSG CT	23.07.2015
3	Dr. S. Sankarakumar, Dr. J. Prabhavathi Ms.B. Priya	Two week ISTE-STTP on Technical Communication for Scientists and Engineers	IIT Bombay X	08.10.2015- 29.11.2015 (online)
4	Dr. J. Prabhavathi Ms.B. Priya	Two week ISTE-STTP on Technical Communication for Scientists and Engineers	PSG College of Technology	30/11/2015- 05/12/2015
5	Ms. B. Priya	Orientation Programme for New Staff	PSG CARE	12.12.2015
6	Dr. G. Menaka	Third International Conference on Engineering Education	Pune	08.01.2016 - 13.01.2016
7	Dr. R. Kalpana	IELTS Examiner Training	British Council	21.01.2016- 24.01.2016
8	Mr.Suresh Kumar S.P. Dr. G. Menaka Dr. Suganthi S Kumar Dr. S. Sankarakumar Dr. J. Prabhavathi Dr. R. Kalpana Mr.R. Senthil Kumar Ms. B. Priya	FDP on International English Proficiency Test	Focus Academy	30.01.2016 - 31.01.2016
9	Dr. Suganthi S Kumar	British Council- IELTS Examiner	British Council	19.03.2016- 22.03.2016
10	Dr. G. Menaka	Faculty Development Programme on Learning Improvement Techniques	IIT, Madras	21.04.2016- 24.04.2016

2.4. Special lectures delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr. G. Menaka	Half day Workshop for M.Tech students	Interview Techniques	Department of IT , PSGCT	27.07.2015
2	Dr. G. Menaka	Two day Workshop	Women Empowerment	Canada India Institutional Project	17.12.2015

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Mr. Suresh Kumar S.P.	Member	English Language Teachers Association of India, Chennai
2	Dr. G. Menaka	Member	English Language Teachers Association of India, Chennai
3	Dr. Suganthi S. Kumar	Member	English Language Teachers Association of India, Chennai
4	Dr. S. Sankarakumar	Member	English Language Teachers Association of India, Chennai
5	Dr. J. Prabhavathi	Member	English Language Teachers Association of India, Chennai
6	Dr. R. Kalpana	Member	ISTE, India
		Presenter & Examiner	University of ESOL Examinations
		Consultant	Cambridge English Assessment
		Member	English Language Teachers Association of India, Chennai
7	Ms. A.Sivaranjani	Member	English Language Teachers Association of India, Chennai
8	Ms. Lavanya R.S.	Member	English Language Teachers Association of India, Chennai
9	Mr. R. Senthil Kumar	Programme Officer – Unit I	National Service Scheme

3. DEPARTMENT ACTIVITIES

3.1. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Mr.Suresh Kumar S.P.	Sri Aurobindo's "Savithri"	Dr. U. Sumathi , Reader, Govt. Arts College, Coimbatore	2007, In progress
2	Ms.A.Sivaranjani	ELT	Dr.K. Rathnasabapathi, Head, Dept. of English, PSG College of Arts & Science, Coimbatore	2011,In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
3	Mr.R. Senthilkumar	ELT	Dr. G. Baskaran, Associate Prof., Dept. of English, VHNSN College, Virdhunagar	2007,In progress
4	Ms. S. Jayanthi	English Literature	Dr. Suganthi S. Kumar, Associate Professor, PSG CT, Coimbatore	2011,In Progress
5	Ms. K. Krishna Kumari			2012, In Progress
6	Ms. N.C. Beno Zephine			2014, In Progress

3.2. Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	Department Library	340	-	-	-	-	-
2	GRD Library – Dept. of English	2634	-	-	-	-	-

3.3. Papers published in international journals

1. R. Kalpana, "Feministic and Realistic Concerns in 'Manjula Padmanabhan's Lights out", *International Journal of Multidisciplinary Approach and Studies*, Nov-December 2015, Vol.2 No.6.
2. G. Menaka, "Effectiveness of Multimedia in Improving Listening Skills", *South Asian Journal of Socio-Political Studies*, July-December 2015, Vol.No.16, Issue 1, Pg.No.100-103.

4. SUMMARY

S. No.	Activity	No.
1.	Short-term training programs conducted	2
2.	Papers published in international journals	2

DEPARTMENT OF HUMANITIES

ABOUT THE DEPARTMENT

The Department of Humanities has been functioning as a full fledged department for the past five decades in the campus. The department offers courses like Economics for Engineers, Principles of Management, Human Resources Management, Entrepreneurship, Human Values and Professional Ethics, American History etc., for BE, B. Tech and B. Sc., programmes at the pre-final year level. The department also offers courses like Principles of Management and Behavioural Sciences for M.Sc Software Engineering Programme at the final year level. Further, in association with the Educational Technology Centre, the department conducts several Faculty / Staff Development Programmes, Workshops and Seminars periodically.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr. R. Sreenivasan, Ph.D Professor and Head	rsp@hum.psgtech.ac.in	1976	Behavioural sciences, Human resource management
2	Dr. V. Santhi, Ph. D Associate Professor	vsr@hum.psgtech.ac.in	2009	Financial management, Risk management & Financial derivatives
3	Dr. K. Sureshkumar, Ph.D Associate Professor	ksk@hum.psgtech.ac.in	2013	Entrepreneurship
4	Dr. M. Kalpana, Ph.D Associate Professor	mkj@hum.psgtech.ac.in	2003	Marketing and systems management
5	Dr. T. Vijayaragavan, Ph.D Asst. Professor	tvr@hum.psgtech.ac.in	2009	Financial management
6	Dr. E. Nandakumar, Ph.D Asst. Professor	enk@hum.psgtech.ac.in	2010	Labour Economics, Economics of Human Resource & Agricultural Economics
7	Mrs. S. Parvadavardini, MBA Asst. Professor	spv@hum.psgtech.ac.in	2012	Financial management, Human resource management
8	Mrs. S. Preethi, M.Phil Asst. Professor	Preethisv16@gmail.com	2015	International Economics & Economics of Human Resources
9	Mrs. V.M. Sangeetha Asst. Professor	Shrishti.124@gmail.com	2015	Finance

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1	Mrs. S. Parvadavardini	Ph.D	2012, Ongoing
2	Mrs. S. Preethi	Ph.D	2010, Completed
3	Mrs. V.M. Sangeetha	Ph.D	2015, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr. R. Sreenivasan	ISO Auditors Training Programme for Faculty	-	27.06.2015
2	Dr. R. Sreenivasan	A one day Programme on Assessment of Pos/COs	-	08.08.2015
3	Dr.M. Kalpana	One Credit Course on Personality Development – “A Career Coping Strategy” – (12OK01)	-	12.09.2015 - 13.09.2015
4	Dr. V. Santhi	“Train – The – Trainers Programmes” for the Anna University – NASSCOM “Foundation Skills in Integrated Product Development (FSIPD)” by Educational Technology Centre	TEQIP Phase II	23.11.2015 - 27.11.2015
5	Dr. V. Santhi	“Train – The – Trainers programmes” for the Anna University – NASSCOM “Foundation Skills in Integrated Product Development (FSIPD)” by Educational Technology Centre	TEQIP Phase II	19.01.2015 - 23.01.2015
6	Dr. V. Santhi	One Credit Course on Export – Import Management – (12OK06)	-	30.01.2016 - 31.01.2016
7	Dr. V. Santhi	“Train – The – Trainers Programmes” for the Anna University – NASSCOM “Foundation Skills in Integrated Product Development (FSIPD)” by Educational Technology Centre	TEQIP Phase II	26.03.2016 - 30.03.2016

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr. V. Santhi	One Day International Conference on Innovation Management (IM 2015)	Anna University BIT Campus, Tiruchirappalli	19.10.2015
2	Dr. M. Kalpana	Worshop on SPSS	PSG Center for Academic Research and Excellence, Coimbatore	12.02.2016 - 13.02.2016
3	Dr. V. Santhi	Faculty Development Programme on Learning Improvement Techniques	Teaching Learning Centre, IIT, Madras	21.04.2016 - 23.04.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr.V. Santhi	Guest Lecture on Management Concepts & Games	Management Concepts & Games	PSG Arts and Science College, Coimbatore	07.01.2016
2	Dr.V. Santhi	Guest Lecture on Engineering Ethics	Risk Management	Kumaraguru College of Technology, Coimbatore	09.02.2016

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
3	Dr.V. Santhi	UGC Sponsored Programme – Competency Building of Teachers	High Impact of Teaching skills & Activity based learning	Chikkaiah Naicker College, Erode	08.03.2016

2.5 Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr. V. Santhi	Doctoral Committee Member	Bharathiar University & Karunya University, Coimbatore
2	Dr. V. Santhi	Advisor	Dramatix Club
3	Dr. M. Kalpana	Associate NCC Officer	NCC
4	Dr. T. Vijayaragavan	Advisor	Tamil mandram

3. DEPARTMENT ACTIVITIES

3.1 Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (Lakh)
1	Scheme for providing technical support to the MSMEs by Leveraging the capabilities of students and faculty of engineering & technical institutions	Dr.K.Suresh kumar	TIFAC, New Delhi	2014 In Progress	3 years	13.17
2	Technology Gap Analysis Study of General Engineering Cluster at Coimbatore	Dr.K. Suresh kumar	TIFAC, New Delhi	February 2016 In Progress	2 years	4.90

3.2 Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	Mrs.S.Parvadavardini	Cost Control and Productivity	Dr. N. Vivek Associate Professor PSG Institute of Management, Coimbatore	2012, Ongoing
2	Mrs. S. Preethi	International Economics	Dr. K.T Geetha Professor & Head Dept of Economics Avinashilingam University Coimbatore	2010 Completed
3	Ms.V.M.Sangeetha	Stock Market	Dr. M. Jegadeeshwaran Assistant Professor Department of Commerce	2015, Ongoing

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
			Bharathiar University Coimbatore	
4	Ms. S. Revathy	Financial Management – Financial Reengineering	Dr. V. Santhi Asst. Professor (Sr. G)	2011, Ongoing
5	Ms. S. Sreekala	Financial Management – Comparative Study on Private Sector and Public Sector Banks in India	Department of Humanities PSG College of Technology Coimbatore	2011, Ongoing

3.2.1 Doctoral Research – Abstract

Impact of Vertical FDI Spillovers on the Productivity and Export Performance of Indian Manufacturing Firms

Supervisor: Dr.K. T Geetha

Candidate: S. Preethi

Vertical FDI Spillovers were analysed to confirm if the existence of foreign firms in India benefit the Indian manufacturing firms. The study was bifurcated into 2 parts. The first part dealt with the trends in FDI inflows, causal nexus between FDI and economic growth and determinants of FDI inflows for the period 1990-91 to 2012-13. The second part dealt with the impact of vertical FDI spillovers on the productivity and export performance of Indian manufacturing firms for the period 2000-01 to 2012-13. The first part of the study was examined using time-series data and the second part of the study was analysed using firm-level panel data. The vertical FDI spillovers for the Indian manufacturing firms were analysed by classifying the domestic firms as low technology and high technology firms and the foreign firms were classified as majority-owned and minority-owned foreign firms. To examine the causal nexus between FDI and economic growth vector error correction model was used and to identify the determinants of FDI the method of least squares was used. Impact of vertical FDI spillovers on the productivity of Indian manufacturing firms was analysed using the fixed effects and random effects regression and to examine the impact of vertical FDI spillovers on the export performance of Indian manufacturing firms Heckman-Selection Maximum Likelihood method was used. The models used in the study were tested for multicollinearity, heteroscedasticity and autocorrelation using Variance Inflation Factor, Breusch-Pagan/Cook-Weisberg test and Wooldridge test respectively. The analysis in the study was performed using the software packages, Eviews 7 and Stata 12.

The study found that FDI inflows for the period 2006-2007 were the highest with the services sector attracting highest FDI inflows. The results of the vector error correction model confirmed that there exists uni-directional long run causality from GDP to FDI. With regard to the determinants of FDI, GDP has a negative influence on FDI inflows while trade openness, exchange rate depreciation and infrastructure positively influenced FDI inflows into India. With regard to the vertical FDI spillovers, the presence of foreign firms in the downstream industries benefits the domestic firms. The existence of foreign firms in the downstream industries, upstream industries or same industry as that of the domestic firms does not influence the productivity of the indigenous firms in the low technology industries. The productivity of the domestic firms in the high technology industries increase with the existence of the foreign affiliates in the downstream industries. The minority-owned foreign firms in the downstream industry influenced the productivity of domestic firms. The existence of foreign firms in the same sector as that of the domestic firms negatively influences the domestic firms' export share. The existence of the foreign firms in the upstream industries increases the export participation and export share of all domestic firms. With regard to the forward FDI

linkages, it was observed that it was the spillovers from the minority-owned foreign firms which positively influenced the export decision of the domestic firms rather than the majority-owned foreign firms.

3.3 Library

S.No.	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1	GRD Library - Humanities	7500	2362	525	5	33	-
2	Department Library	310	-	-	-	-	-

3.4 Board of Studies

S. No.	Date	Agenda	Experts
1	13.06.2015	<ol style="list-style-type: none"> 1. Courses of study and scheme of assessment relating to first year subjects to be offered under the board. 2. Skills necessary for the UG students to meet the requirements of the industry. 3. Open electives and their area of impact on the students i.e., creative thinking, soft skills, enhancing efficiency, etc. 4. Introduction of one credit courses. 	<ol style="list-style-type: none"> 1. Dr. B. Jayanthi Professor Regional Office: Anna University Tirunelveli Region, Tirunelveli 2. Dr. B. Vanitha Associate Professor Department of Economics Bharathiar University, Coimbatore 3. Mr. Rajesh Ramanujam General Manager - Ford Technologies India Ltd. Perungudi, Chennai 4. Mr. V. Nagachandran CEO, Sun Power Textiles T-69-A, Renga Triyambhava Kalapatti Main Road, Civil Aerodrome Post, Coimbatore 5. Dr. P. Vikkraman Director, Academic Co-ordinator School of Management Studies Anna University, Regional Centre Coimbatore
2	09.04.2016	<ol style="list-style-type: none"> 1. Programme Outcome as per latest NBA document 2. Mapping of Course Outcome with Programme Outcome 3. Working manual for Economics for Engineers 4. Review of syllabi for open elective subjects "English for Competitive Examinations" and "English and Soft Skills for Employability" 	<ol style="list-style-type: none"> 1. Dr. B. Jayanthi Professor, Regional Office: Anna University,,Tirunelveli Region, Tirunelveli 2. Dr. B. Vanitha Associate Professor Department of Economics Bharathiar University, Coimbatore 3. Mr. Rajesh Ramanujam General Manager - Ford Technologies India Ltd. Perungudi, Chennai 4. Mr. V. Nagachandran CEO,Sun Power Textiles T-69-A, Renga Triyambhava Kalapatti Main Road, Coimbatore

S. No.	Date	Agenda	Experts
			5. Dr. P. Vikkraman Director, Academic Co-ordinator School of Management Studies Anna University, Regional Centre Coimbatore

3.5. Research publications

3.5.1. Papers published in international journals

1. V. Santhi, "Modi's Foreign Policy taking India to the Next Level", *International Journal of South Asian Journal of Socio-Political Studies*, Vol.15, Iss.2, Page No.64-66, January – June 2015.
2. V. Santhi, "Evaluating the Financial Health of Selected Commercial Banks in Indian Banking Sector", *Asian Journal of Research in Social Sciences and Humanities*, Vol.6, No.3, Page No.121-127, March 2016.
3. V. Santhi, "The Impact of Capital Structure on Profitability of Manufacturing Companies: Using Multiple Regression Model", *Asian Journal of Research in Social Sciences and Humanities*, Vol.6, No.4, Page No.306-315, April 2016.
4. V. Santhi, "Impact of Globalization on Indian Economy: Emerging Issues and Concerns", *International Journal of South Asian Journal of Socio-Political Studies*, Vol.17, Iss.2, Page No.102-106, January – June 2016.
5. V. Santhi, "The Impact of Capital Structure on Profitability of Manufacturing Companies in India", *International Journal of Advanced Engineering Technology*, Vol.7, No.1, Page No.40-45, January - March 2016.
6. M. Kalpana, "Usage and Perception of Students Towards Social Media Technology (SMT) and its Influence on Higher Education", *International Conference Proceedings on Development Policy – Transfer of Technology for Sustainable Growth and Development: Lessons and Experiences*, Page No. 115-128, SciTech Publications, Chennai.
7. T. Vijayaragavan, "Mudra's Time to Lift Micro and Small Businesses", *International Journal of Management Research*, Vol.3 Iss.6, Page No.123-129, June 2015.
8. T. Vijayaragavan, "Participation of Rural Development Schemes in India", *International Journal of Research in Commerce, Economics & Management*, Vol.5, Iss.7, Page No.53-56, July 2015.
9. T. Vijayaragavan, "Automobile Industry the Strength of India to Accelerate Economic Growth", *International Journal of Multidisciplinary Management Studies*, Vol.5, Iss.8, Page No.52-56, August 2015.
10. T. Vijayaragavan, "Small Scale Industry – Important Engine for the Growth of India's Economy", *Indian Journal of Applied Research*, Vol.5, Iss.10, Page No.102-103, October 2015.
11. E. Nandakumar, "Policy Analysis Matrix Approach: Applications Strengths and Weakness", *Agricultural Research Journal*, Vol.52, No.3, Page No.11-18, September 2015.
12. E. Nandakumar, "Can Farmers be Economically Sustainable Through Reclamation of degraded soil", *International Research Journal of Agricultural Economics and Statistics*, Vol. 6, No. 2, Page No. 09-18, September 2015.
13. E. Nandakumar, "Factors influencing adoption of Soil Reclamation Measures: Evidences and Implications", *Indian Journal of Social Research*, Vol.56, Iss.6, Page No.979-990, Nov-Dec 2015.

4. SUMMARY

S. No.	Activity	No.
1.	Short-term training programs conducted	2
2.	Sponsored research projects Completed	1
3.	Scholars pursuing doctoral research	5
4.	Papers published in international journals	13

DEPARTMENT OF MATHEMATICS

ABOUT THE DEPARTMENT

The Department of Mathematics at PSG College of Technology has seen a phenomenal growth and success over the past 60 years. It has achieved the highest standard in both research and teaching. The department is designed to provide students with a solid grounding in engineering mathematics and also in the mathematical logical foundations of computer science. The department also trains engineering students in strong mathematical background to enhance and apply their skills to find solutions to their field specific problems.

At present the department consists of 26 faculty members, mostly with doctorate degrees in various fields. A wide range of seminars are being organized within the department from time to time. An annual feature of the department is the organization of symposium in memory of the mathematical legend, Srinivasa Ramanujan.

A brief on research activities

The emphasis is on practice infused with fundamental science and mathematics which offers ample research opportunities, both in theoretical and experimental fields. At the forefront are its interdisciplinary applications and research is being carried out in pure and applied mathematics.

Major areas of research

- Computational Finance
- Cryptography
- Differential Equations
- Fuzzy Systems
- Graph Theory
- Number Theory
- Queueing Theory
- Reliability
- Soft computing
- Stochastic models
- Fractional Calculus

1. FACULTY

S.No	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1.	Dr.R. Arumuganathan, Ph.D Professor and Head	hod@mat.psgtech.ac.in	1989	Applied mathematics, Queueing theory
2.	Dr.M.Balasubramanian, Ph.D Associate Professor	mbs@mat.psgtech.ac.in	1988	Operations research, Queueing theory
3.	Dr.B. Sridevi, Ph.D Associate Professor	bsd@mat.psgtech.ac.in	1995	Fuzzy sets and systems in decision making
4.	Dr.C.Porkodi, Ph.D Assistant Professor(Sr.Gr.)	cpg@mat.psgtech.ac.in	2000	Cryptography & Network Security
5.	Dr.K.Sangavai, Ph.D Assistant Professor(Sr.Gr.)	sks@mat.psgtech.ac.in	1999	Graph theory and Networks
6.	Dr.T.Vasanthi, Ph.D Assistant Professor(Sr.Gr.)	tvi@mat.psgtech.ac.in	2001	Reliability analysis in stochastic models, Optimization techniques and soft computing

S.No	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
7.	Dr.M. Haridass, Ph.D Assistant Professor(Sr.Gr.)	mhd@mat.psgtech.ac.in	2002	Queueing theory, Applied mathematics
8.	Mr.P.Muthukumar, M.Phil Assistant Professor (SG)	pmk@mat.psgtech.ac.in	2007	Fuzzy Soft set, Applied Mathematics
9.	Dr.A.Muthulakshmi, Ph.D Assistant Professor(SG)	aml@mat.psgtech.ac.in	2005	Cryptography
10.	Ms.R.Bindhu, M.Phil Assistant Professor(Sr.Gr.)	rbu@mat.psgtech.ac.in	2008	Fluid dynamics, Heat Transfer
11.	Ms.M. Radhiga, M.Phil Assistant Professor(Sr.Gr.)	mra@mat.psgtech.ac.in	2005	Applications of Fractional calculus
12.	Ms.M.Bagyalakshmi, M.Phil Assistant Professor(Sr.Gr.)	mbl@mat.psgtech.ac.in	2006	Fluid dynamics, Heat transfer
13.	Mr.J.Narayananasamy, M.Phil Assistant Professor(Sr.Gr.)	jns@mat.psgtech.ac.in	2008	Stochastic differential equations
14.	Ms.R.Deena , M.Phil Assistant Professor(Sr.Gr.)	rda@mat.psgtech.ac.in	2008	Fluid dynamics, Heat Transfer
15.	Ms.R.Rajasudha, M.Phil Assistant Professor(Sr.Gr.)	rrs@mat.psgtech.ac.in	2009	Queueing models
16.	Dr.D.Singaram, Ph.D Assistant Professor(Sr.Gr.)	dsm@mat.psgtech.ac.in	2010	Fuzzy algebra
17.	Ms.M.Sumathi, M.Phil Assistant Professor(Sr.Gr.)	msm@mat.psgtech.ac.in	2008	Optimization Techniques, Stochastic epidemic models
18.	Ms.P.Sathyakala, M.Phil Assistant Professor(Sr.Gr.)	psl@mat.psgtech.ac.in	2009	Fluid dynamics, Differential equations
19.	Dr.R.Subalakshmi, Ph.D Assistant Professor(Sr.Gr.)	rsl@mat.psgtech.ac.in	2010	Abstract control theory, Stochastic differential equation
20.	Dr.Ragi Krishnan, Ph.D Assistant Professor(Sr.Gr.)	rag@mat.psgtech.ac.in	2014	Reliability and graph theory
21.	Ms.C.K.Deena Merit, M.Phil Assistant Professor	ckd@mat.psgtech.ac.in	2010	Stochastic Models
22.	Ms.V.Deepa, M.Sc. M.Phil Assistant Professor	vdp@mat.psgtech.ac.in	2010	Queueing Models
23.	Dr.B.Radhakrishnan, Ph.D Assistant Professor	brk@mat.psgtech.ac.in	2012	Control Theory & Differential Equation
24.	Ms.S. Sindhumathy, M.Phil Assistant Professor	ssm@mat.psgtech.ac.in	2014	Graph theory
25.	Ms.S.T.Padmalkshmi,M.Phil Assistant Professor	stp@mat.psgtech.ac.in	2014	Operations Research
26.	Ms.G.Tamilselvi, M.Phil Assistant Professor	gts@mat.psgtech.ac.in	2014	Graph theory

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1.	Mr.D. Singaram	Ph.D	2009, Completed

2.	Mr.P. Muthukumar	Ph.D	2011, Ongoing
3.	Ms.R. Bindhu	Ph.D	2011, Ongoing
4.	Ms.M. Bagyalakshmi	Ph.D	2011, Ongoing
5.	Ms.R. Deena	Ph.D	2011, Ongoing
6.	Ms.P. Sathyakala	Ph.D	2011, Ongoing
7.	Mr.J. Narayanasamy	Ph.D	2014, Ongoing
8.	Ms.M. Sumathi	Ph.D	2014, Ongoing
9.	Ms.M. Radhiga	Ph.D	2015, Ongoing
10.	Ms.R. Rajasudha	Ph.D	2015, Ongoing
11.	Ms.C.K. Deena Merit	Ph.D	2015, Ongoing
12.	Ms.V. Deepa	Ph.D	2015, Ongoing

2.2. Conference / Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1.	Dr.B. Sridevi	International Conference on Applied Mathematical Models (ICAMM-2016) Highlight: Keynote speaker Abel Laureate Padma Bhusan Prof. Srinivasa Varadhan, Courant Institute of Mathematical Sciences, New York University, USA	-	05.01.2016 - 07.01.2016
2.	Ms. M.Sumathi Dr.Ragi Krishnan	Workshop for first year B.E/B.Tech Students (Undergone Schooling in Tamil medium) on “keep believing yourself - KEY for Success”	-	22.08.2015

2.3. Conference / Workshop/ Training programme attended by faculty

S.No	Name of faculty	Programme	Organizer	Period
1.	Dr.C.Porkodi Dr.K.Sangavai	TEQIP Sponsored FDP on Network Technologies and security	Anna University, Tiruchirappalli	04.05.2015 - 19.05.2015
2.	Dr.B. Radhakrishnan	The 11 th International Conference on Fixed Point Theory and its Applications, ICFPTA 2015	Galatasaray University, Istanbul, Turkey	20.07.2015 - 24.07.2015
3.	Dr.C.Porkodi Dr.A.Muthulakshmi	Workshop on Algorithms and Large Scale Computations in Cryptology	Amrita Vishwa Vidyapeetham University, Coimbatore	03.11.2015 - 06.11.2015
4.	Dr.K.Sangavai Dr.T. Vasanthi	One Week Quality Improvement Programme on Emerging Trends in Linear Algebra and Graph Theory	CIT, Coimbatore	30.11.2015 - 06.12.2015
5.	Ms.C.K. Deena Merit	International Conference on Mathematical Computer Engineering	VIT, Chennai	14.12.2015 - 15.12.2015

S.No	Name of faculty	Programme	Organizer	Period
6.	Dr.M.Bala subramanian Dr.C.Porkodi Dr.K.Sangavai Dr.T. Vasanthi Dr.M.Haridass Mr.P.Muthukumar Ms.R.Bindhu Dr.A.Muthulakshmi Ms.M.Radhiga Ms.M.Bagyalakshmi Mr.J.Narayanasamy Ms.R. Deena Ms.R.Rajasudha Mr.D. Singaram Ms.P.Sathyakala Dr.R. Subalakshmi Dr.Ragi Krishnan Ms.C.K.Deena Merit Ms.V.Deepa Dr.B.Radhakrishnan Ms.S. Sindhumathy Ms.S.T.Padmalakshmi	International Conference on Applied Mathematical Models (ICAMM-2016)	PSG College of Technology	05.01.2016 - 07.01.2016
7.	Dr.C.Porkodi	FDP on learning improvement techniques	IIT Madras, Chennai	10.03.2016 - 12.03.2016
8.	Dr.R.Subalakshmi Dr.B. Radhakrishnan	International conference on Nonlinear Dynamical Systems (ICNDS-16)	Bharathiyar University, Coimbatore	24.03.2016- 26.03.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of Programme	Topic	Organizer	Date
1.	Dr.R.Arumuganathan	Department research seminar	Construction with straightedge and compass	Department of Mathematics, PSGCT	28.07.2015
2.	Dr.K.Sangavai	National conference	Recent trends in pure applied mathematics	NGP Arts & Science College, Coimbatore	
3.	Dr.M.Haridass	Guest Lecture	Travel on Mathematics	PSG College of Arts & Science, Coimbatore	16.09.2015
4.	Mr.P.Muthukumar	Department research seminar	IFSS and its applications	Department of Applied Mathematics and computational sciences, PSGCT	01.04.2016
5.	Dr.A.Muthulakshmi	One day seminar on APINFIMITU M - 2016	Cryptography and its applications	Kumaran college for women, Tirupur	04.03.2016

S.No.	Name of faculty	Title of Programme	Topic	Organizer	Date
6.	Ms.R.Bindhu	Department research seminar	Multigrid method – a brief introduction	Department of Mathematics, PSGCT	04.03.2016
7.	Ms.M.Radhiga		Geometrical and physical interpretation of fractional order derivatives	Department of Mathematics, PSGCT	18.03.2016
8.	Ms.R.Rajasudha		Discrete time queueing models – an introduction	Department of Mathematics, PSGCT	12.02.2016
9.	Dr.D.Singaram	Department research seminar	Convergence of series	Department of Mathematics, PSGCT	16.07.2015
10.	Dr.Ragi Krishnan		Reliability of k-out-of-n stand by systems with sensor and their different types of components	Department of Mathematics, PSGCT	10.07.2015
11.	Ms.C.K.Deena Merit		A Queue with working vacation	Department of Mathematics, PSGCT	22.01.2016
12.	Ms.V.Deepa		A survey on bulk service queueing models		26.02.2016
13.	Dr.B.Radhakrishnan		Guest lecture	Introduction to MATLAB	Kumaraguru College of Technology, Coimbatore

2.5 Faculty Involvement in other activities

S.No	Name of faculty	Activity / Role	Organization
1.	Dr.R.Arumuganathan	Member of Board of Studies	Bharathiyar University, Kongu Engineering College, Krishna Institute of Technology
2.	Dr.M.Balasubramanian	Life Member	Indian Society for Technical Education
3.	Dr.B.Sridevi	Life Member	Indian Society for Technical Education
4.	Dr.C.Porkodi	Life Member	Indian Society for Technical Education, Cryptology Research Society of India
5.	Dr.K.Sangavai	Life Member	Indian Society for Technical Education
		Member	Indian Mathematical Society
6.	Dr.T.Vasanthi	Member	Indian Society for Technical Education
7.	Dr.M.Haridass	Life Member	Indian Society for Technical Education
8.	Dr.A.Muthulakshmi	Life Member	Cryptology Research Society of India
9.	Ms.R.Deena	Life Member	Indian Society for Technical Education
10.	Ms.R.Rajasudha	Life Member	Cryptology Research Society of India
11.	Ms.V.Deepa	Life Member	Indian Society for Technical Education
12.	Dr.B. Radhakrishnan	Life Member	Calcutta Mathematical Society, Indian Society for Technical Education

3. DEPARTMENT ACTIVITIES

3.1. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (Lakhs)
1.	Mathematical Modeling for Utilizing Idle Period Effectively in a Production Assembly Line System	Dr.M.Haridass	University Grants Commission Hyderabad	17.03.2014 In progress	2 years	3.8
2.	Studies on Controllability of Nonlinear Impulsive Integro differential Systems with Delays	Dr.B.Radha krishnan	Council of Scientific and Industrial Research, New Delhi	16.04.2014 In progress	3 years	10
3.	Security analysis of graph theoretic, cluster based routing algorithms in sensor networks	Dr.C.Porkodi Dr.K.Sangavai	DRDO	19.011.2015	3 years	19

3.1.1. Sponsored research activities – Abstract

Mathematical modeling for utilizing idle period effectively in a production assembly line system

The objective of this proposal is to analyze the effective utilization of idle period and optimize the cost involved in a production system using stochastic models (queueing models) and simulation techniques. Provision of different queueing models for predicting the cost effectiveness of the processes involved in the production field, is aimed at. The needs of industries, viz., arrival rate of raw materials, service rate of the machines, startup time, setup time, utilization of idle period in the effective manner for various production processes will be incorporated. A simulated model of a production system is to be analyzed by taking the relevant input data from neighboring industries. The predicted system is to be implemented in the industries. Proposed models will suggest the management to optimize the cost. Being a multi-disciplinary topic, which is to be carried out in an individual city like Coimbatore, reaping the cost effectiveness of the techniques adopted will give a bridge for industry-institute interaction programs.

Studies on controllability of nonlinear impulsive integro-differential systems with delays

We address the controllability results for linear and non-linear fractional integro-differential with various types of dynamical systems. Fractional derivatives prove to be an excellent instrument for the description of memory and hereditary properties of various materials and processes. The advantages of fractional derivatives become apparent in modeling, mechanical and electrical properties of real materials as well as in the description of rheological properties of rocks and in many other fields. Also we extend this study to numerically and in fuzzy environment deal with fixed point theorems.

- 1) The focus of this proposed work centers around the study concerning the controllability of integro-differential systems with the aid of fixed point techniques.

- 2) Indeed recent advances of fractional calculus are dominated by modern examples of applications in differential and integral equations, physics, signal processing, fluid mechanics, viscoelasticity, mathematical biology and electro-chemistry. There is no doubt that fractional calculus has become an exciting new mathematical tool to get solutions of diverse problems in mathematics, science, and engineering.
- 3) Integrals and derivatives of integer order are the normal integrals and derivatives of analysis. But in the case of fractional order, these ideas manifest their own peculiar features. Because various modifications arise naturally in different situations, the interconnections between these modifications have to be investigated.
- 4) Describing various methods, the fixed point technique is the most effective and important tool in this proposed study. In this method the problem is transformed to a fixed point problem for an appropriate nonlinear operator in a function space.
- 5) The outcome of the expected results will be extended to fuzzy environment and numerical approach.

3.2. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & Institution	Year of registration & status
1.	Ms.A.Senthil Vadivu	Queueing theory	Dr.R. Arumuganathan Professor and Head Dept. of Mathematics PSG College of Technology	2008, Completed
2.	Ms.N.Kalpana			2010, In progress
3.	Ms.A.R.Kiruthiga	Optimization Techniques, Biometrics		2010, In progress
4.	Ms.M.Radhiga	Applications of Fractional calculus		2015, In progress
5.	Ms.R.Rajasudha	Queueing models		2015, In progress
6.	Ms.B.Kousalya	Reliability Analysis in Stochastic Models	Dr.T.Vasanthi Assistant Professor (Sr.Gr.) Dept. of Mathematics PSG CT	2011, In progress
7.	Ms.K.S.Meena			2011, In progress
8.	Ms.M.Vijaya lakshmi	Fuzzy Systems	Dr.B.Sridevi Associate Professor Dept.of Mathematics PSG CT	2011, In progress
9.	Ms.J.Dhivya	Fuzzy Sets and Systems		2012, In progress
10.	Mr.S.Saravana kumar	Fuzzy Sets and Systems		2012, In progress
11.	Ms.R.R.Mythili	Fuzzy Sets in Decision making		2012, In progress
12.	Ms.C.K.Deena Merit	Stochastic models	Dr. M.Haridass Assistant Professor (Sr. Gr.) Dept.of Mathematics, PSG CT	2015, In progress
13.	Ms.V.Deepa	Queueing models		2015, In progress
14.	Ms.R.P.Nithya	Stochastic models		2015, In progress
15.	Mr.D.Singaram	Fuzzy Algebra	Dr.P.R. Kandasamy Professor and Head, Dept.of Mathematics PSG Institute of Technology & Applied Research, Coimbatore	2009, Completed
16.	Mr.P.Muthu kumar	Fuzzy Soft set, Applied Mathematics	Dr.G.Sai Sundara Krishnan	2011, In progress

S.No.	Candidate	Short title / Area of work	Supervisor with designation & Institution	Year of registration & status
17.	Ms.R.Bindhu	Fluid dynamics, Heat Transfer	Associate Professor Dept. of Applied Mathematics and Computational Sciences PSG CT	2011, In progress
18.	Ms.M. Bagyalakshmi			2011, In progress
19.	Ms. R. Deena			2011, In progress
20.	Ms. P. Sathyakala			2011, In progress
21.	Mr.J.Narayana samy	Numerical Analysis for Stochastic Differential Equations	Dr.A. Rathinasamy Assistant Professor Dept.of Mathematics Anna University, Chennai	2013, In progress
22.	Ms.M. Sumathi	Optimization Techniques, Stochastic epidemic models	Dr.M.Senthil Kumar Associate Professor Dept. of Applied Mathematics and Computational Sciences, PSG CT	2014, In progress

3.2.1. Doctoral research – Abstract

Analysis of discrete and continuous time queues with server breakdown and vacations

Supervisor: Dr.R. Arumuganathan

Candidate: Ms.A.Senthil Vadivu

Discrete and continuous time queueing models have been widely used to provide stochastic modelling of many real world problems arising in telecommunications, computer networks and manufacturing systems. In this thesis, analysis of discrete and continuous time queueing models with server breakdown and vacations are discussed. The proposed models of this research work are theoretically developed and numerically justified. All the models are motivated by real time examples. The thesis examines introductory concepts of classical queues with continuous and discrete times. In the proposed work, six different classical queueing models with continuous and discrete times have been analysed. Variants in arrivals such as negative, impatient and feedback of customers are also considered. Continuous time queueing models are analysed in the first three chapters of the thesis and discrete time queueing models are analysed in the last three chapters of the thesis. Analytical treatment of all models proposed in this study was done by using either supplementary variable technique or embedded Markov chain technique or both. All the chapters are motivated with a practical situation for better understanding and application. In order to justify the theoretical results, numerical illustrations of all models are discussed with assumed parameters. The important features of the proposed continuous and discrete time queueing models are highlighted. The major contribution of this research work is summarized and scope for future enhancements is also presented.

Contribution to a study on fuzzy ideals of semigroups

Supervisor: Dr. P.R. Kandasamy

Candidate: Mr.D.Singaram

This thesis deals with several kinds of interval-valued fuzzy ideals in semigroups. The notions of an interval-valued fuzzy left ideal (resp. right ideal, two-sided ideal, bi-ideal) in an ordered semigroup are introduced. Several equivalent conditions are established in terms of interval-valued fuzzy ideals. In particular, characterizations of regular and intra-regular semigroups and ordered semigroups in terms of interval-valued fuzzy ideals are obtained. The structure of interval-valued fuzzy interior

ideal of an intra-regular semigroup is obtained and it is showed that in an intra-regular semigroup, the concept of an interval-valued fuzzy ideal and an interval-valued fuzzy interior ideal are identical. The concept of interval-valued fuzzy sets is extended to n-valued fuzzy sets. Moreover all the results generalize the previous results in the literature. Further, the notion of equivalent interval - valued fuzzy sets and the notion of equivalence on fuzzy sets under a mapping are introduced. The equivalence of interval-valued fuzzy sets defined in a set and the equivalence of fuzzy sets defined in two different fuzzy sets are also studied. Examples are also provided to illustrate the theory.

3.3. Library

S.No	Library	Books	Back volume	Book bank	International journals	National journals	Gratis journals
1.	Department Library	437	-	-	-	5	-
2.	GRD Library -Mathematics	10044	1128	711	-	6	Nil

3.4. Board of studies

S. No	Date	Agenda	External experts
1.	10.10.2015	<ol style="list-style-type: none"> 1. Preparation of UG scheme and detailed syllabi for Regular (3rd semester to 8th semester) and Sandwich (3rd semester to 10th semester) for 2015 regulations. 2. Introduction of new electives for UG. 3. Introduction of one credit courses for UG 	<ol style="list-style-type: none"> 1. Prof. K.C. Sivakumar Professor, Department of Mathematics Indian Institute of Technology Madras Chennai 2. Prof. Y V S S Sanyasiraju Professor, Department of Mathematics Indian Institute of Technology Madras Chennai 3. Dr.S. Paulraj Professor, Department of Mathematics Anna University, Chennai
2.	09.04.2016	<ol style="list-style-type: none"> 1. Mapping of Course Outcomes with Program Outcomes of courses under 2015 Regulations of BE/BTech Programmes. 2. Introduction of new electives for UG/PG and research electives. 3. Introduction of one credit courses for UG/PG. 	<ol style="list-style-type: none"> 4. Mr. Raghu K Oruganty Head-Technology, ATS ELGI Limited Kurichy, Coimbatore 5. Mr.R. Jagadeesh Senior Manager Cognizant Technology Solutions Chennai

3.5. Research publications

3.5.1. Papers published in international journals

1. A.Senthil Vadivu and R.Arumuganathan, "Cost Analysis of MAP / G (a,b)/1/N Queue with Multiple Vacations and Closedown Times", *Quality Technology & Quantitative Management*, Vol. 12, No.4, PP-581-602, ICAQM 2015.
2. A.Senthil Vadivu and R.Arumuganathan, "Analysis of MAP/G/1/N queue with two phases of service under single (multiple) vacation(s)", *Source of the Document International Journal of Operational Research*, 2016.
3. A.Senthil Vadivu, R.Arumuganathan and Senthil Kumar. M, "Analysis of Discrete-time queues with correlated arrivals, negative customers and server interruption", *Source of the Document RAIRO - Operations Research*, 2016.

4. Haridass. M. and Arumuganathan. R, "Analysis of a single server batch arrival retrial queueing system with modified vacations and n-policy", *Source of the Document RAIRO - Operations Research*, 2015.
5. Nithya R P and Haridass M, "Analysis of a queueing system with two faces of bulk service, closedown and interrupted vacation", *International Journal of Applied Engineering Research*, vol.11, No.1, pp.447-468, 2016.
6. Jailaxmi.V and Arumuganathan. R, "Analysis of a retrial queue with multiple vacations and state dependent arrivals", *Source of the Document RAIRO - Operations Research* 49 (3), pp. 619-634, 2015.
7. Meena, KS and Vasanthi, T, Rajeswari, M, Uma Maheswari, P, 2016, 'Reliability Analysis of MANET with RCFP: Reliable Cluster Forming Protocol', *International Journal of Applied Engineering Research*, vol.11, no.1, pp 440-447.
8. Meena, KS and Vasanthi, T 2015, 'The Performance Assessment of MANET using WUGF', *Research Journal of Applied Sciences, Engineering and Technology*, vol. 10, no.8 , pp. 942-950.
9. Meena, KS and Vasanthi, T 2015, 'Reliability Design for a MANET with Cluster Head Gateway Routing Protocol', *Communication in Statistics-Theory and Methods*, DOI:10.1080/03610926.2014.911908.
10. Uma Maheswari, P, Rajeswari, M, Meena KS and Vasanthi, T 2016, 'Reliability calculation of VANET with RSU using UGFT', *International Journal of Advance Foundation and Research in Computer*, Vol. 2, No. 12, pp.7-16.
11. Haridass M and Nithya RP, "Analysis of a bulk queueing system with server breakdown and vacation interruption", *International Journal of Operations Research*, Vol.12, No. 3, pp 069 - 090, 2015.
12. Nithya R P and Haridass M, "Optimum Cost Analysis of a Bulk Queueing System with Breakdown, Controlled arrival and Multiple Vacations", *International Conference on Mathematical Computer Engineering*, VIT University, Chennai, pp 201 – 203, 14 – 15 December 2015.
13. P.Muthukumar and G.Sai Sundara Krishnan, "A similarity measure of intuitionistic fuzzy soft sets and its application in medical diagnosis", *Applied Soft Computing*, No.41, pp 148-156, 2016.
14. Deena Merit C.K. and Haridass M, "Analysis of a Bulk Queueing System with Working Vacation and Restricted Admissibility of Arriving Batches", *International Conference on Mathematical Computer Engineering*, VIT University, Chennai, pp 228 – 230, 14 – 15 December 2015.
15. Nithya R P and Haridass M, "Analysis of a Queueing System with two phases of bulk service, closedown and interrupted vacation", *International Conference on Applied Mathematical Models- ICAMM 2016*, PSG College of Technology, Coimbatore, Tamil Nadu, India, pp 764 - 790 , 05 - 07 January 2016.
16. M.Bagyalakshmi, Madhu Ganesh and G.Sai Sundara Krishnan, "Explicit solution to predict the temperature distribution and exit temperatures in a heat exchanger using differential transform method" in the *Arabian Journal of Science and Engineering*, DOI 10.1007/s13369-015-1978-1, 2015.
17. B.Radhakrishnan, "Existence of Quasilinear Neutral Impulsive Integrodifferential Equations in Banach Space", *International Journal of Analysis and Applications*, vol.7, pp-22-37, 2015.
18. B.Radhakrishnan, "Controllability of Sobolev-Type Neutral Mixed Integrodifferential Evolution System in Banach Spaces", *DJ Journal of Engineering and Applied Mathematics (DJ JEAM)*, vol.1, pp.4-16. 2016.
19. B.Radhakrishnan, "Existence results for second order integrodifferential equations of Sobolev type", *Journal of Nonlinear and Convex Analysis*, pp.1-15, 2016.
20. B.Radhakrishnan, "Controllability results for non-linear neutral fuzzy integrodifferential systems in fuzzy semigroups", *journal of nonlinear functional analysis*, vol.2015, pp.1-19, 2015.

3.5.2. Papers presented in international conferences

1. Divya J and Sridevi B, "Intuitionistic fuzzy similarity measure for generalised fuzzy numbers and its applications in finger print matching", *International Conference on Applied Mathematical Models (ICAMM 2016)*, organized by Department of Mathematics, PSG College of Technology during 5-7 January 2016.
2. B.Radhakrishnan, "Existence of semilinear Neutral Impulsive mixed Integrodifferential inclusions of Sobolev type in banach Spaces", *11th International Conference on Fixed Points Theory and its Applications (ICFPTA-2015)*, organized by Galatasaray University, Istanbul, Turkey held during 20-24 July 2015.

3.6. Visits abroad

3.6.1 Visits by faculty

S.No.	Name of faculty	Place of visit	Period	Purpose
1	B.Radhakrishnan	Galatasaray University, Istanbul, Turkey held during	20.7.2015 - 24.07.2015	11 th International Conference on Fixed Points Theory and its Applications (ICFPTA-2015)

4. STUDENT ACTIVITIES

4.1. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1.	Award Ceremony	Dr. R.Rudramoorthy Principal, PSG CT	80	25.08.2015
2.	Brains Here	-	140	05.10.2015
3.	Clash of Mathicians	-	104	06.10.2015
4.	Paper Presentation	-	18	22.12.2015
5.	Visualization of Mathematics (Kriya)	-	80	13.02.2015- 14.02.2015
6.	Math Quiz	-	40	02.03.2016
7.	Tricky Tricksters	-	100	02.03.2016
8.	PI-DAY Celebration: Math Modeling and Round & Round till you explode	-	70	15.03.2016
9.	Award function	Dr G Sankarasubramanian Professor & Head Department of Civil Engineering, PSG CT	100	21.03.2016

5. SUMMARY

S. No.	Activity	No.
1.	International conferences conducted	1
2.	Workshops conducted	2
3.	Sponsored research projects ongoing	3
4.	Scholars pursuing doctoral research	11
5.	Papers published in international journals	20
6.	Papers presented in international conferences	2

DEPARTMENT OF PHYSICS

ABOUT THE DEPARTMENT

The Department of Physics was established in the year 1951. The department has been working towards fulfilling its mission through a synergic combination of teaching and research. Apart from handling classes for the under-graduate and post-graduate engineering programmes, the department has also been conducting short-term continuing education programmes for participants from educational institutions and industries. The mission of the department is to contribute to the training of a wide spectrum of students of engineering and technology by offering relevant curricular inputs related to applied physics. Research, development and consultancy activities are being undertaken to achieve self-sufficiency in Hi -Tech Materials, devices and instruments. Research work in the area of thin film optical memory devices, MEMS, solar cells etc, crystal growth and non-linear dynamics are in progress in the department.

A brief on research activities

The department has received funding from various governmental agencies such as DST, AICTE, UGC, CSIR and AERB to carry out research activities in the areas mentioned below. The facilities available are used to synthesize and characterize a wide variety of materials for both research and industrial applications.

Major areas of research

- Thin films for Solar cells applications
- Radiation dosimetry
- Non-linear dynamics
- Crystal growth
- Nanomaterials

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
1	Dr. M.D.Kannan, Ph.D Associate Professor and Head	mdk@phy.psgtech.ac.in	1992	Thin film solar cells, Micro electro mechanical systems
2	Dr.K.Sivakumaran, Ph.D Associate Professor	ksk@phy.psgtech.ac.in	1988	Semiconducting Materials
3	Dr.A.Annadurai, Ph.D Associate Professor	aad@phy.psgtech.ac.in	1994	Thin films, magnetic materials
4	Dr.R.Amuda, Ph.D Associate Professor	raa@phy.psgtech.ac.in	1998	Non-Linear dynamics, condensed matter physics
5	Dr.A.Brinda, Ph.D Assistant Professor	aba@phy.psgtech.ac.in	2003	Non-linear dynamics Lower dimensional magnetic systems
6	Dr.S.Prasanna, Ph.D Assistant Professor(S.G)	spa@ phy.psgtech.ac.in	2005	Thin film dielectrics and solar cells
7	Dr R Balaji ,Ph.D Assistant Professor(S.G)	balajir.psg@gmail.com	2007	Synthesis and Electrical properties of Gel polymer
8	Dr.R.Arunkumar, Ph.D Assistant Professor(S.G)	rak@phy.psgtech.ac.in	2009	Crystal growth

S.No.	Name & designation with highest qualification	e-mail id	Year of joining	Areas of specialization
9	Mr. A.Suresh Kumar, M.Phil Assistant Professor (Sr.G)	asr@ phy.psgtech.ac.in	2009	Crystal growth and Solid state devices
10	Dr.P. Puviarasu, Ph.D Assistant Professor	puv@ phy.psgtech.ac.in	2011	Thin Films and Crystal Growth
11	Dr. N. Gokilamani, Ph.D Assistant Professor	ngk@phy.psgtech.ac.in	2014	Dye sensitized Solar Cells
12	Dr.D.Vasanth Raj, PhD Assistant Professor	dvr@phy.psgtech.ac.in	2014	Nanomaterials
13	Dr B Uma Maheshwari Assistant Professor	uma51180@gmail.com	2016	Thin Films
14	Dr P Kathirvel Assistant Professor	ponkathirvel@ gmail.com	2016	Nanotechnology
15	Dr R Balasundaraprabhu Assistant Professor	prabhu7737@ yahoo.com	2016	Thin film solar cells

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining & status
1.	Mr. A. Suresh Kumar	Ph.D	2011, Ongoing

2.2. Conference/ Workshop/ Training programme conducted by faculty

S.No.	Name of faculty	Title of programme	Collaborating agency (if any)	Period
1	Dr.R.Balasundaraprabhu	Engineering Physics	IIT-Mumbai	08.12.2015-18.12.2015
2	Dr.R.Balasundaraprabhu Dr.S.Prasanna	International Workshop on Theoretical and Experimental Physics	-	31.12.2015
3	Dr.R.Arun Kumar	National Workshop on Luminescent Materials	-	26.02.2016
4	Mr.A.Sureshkumar			

2.3. Conference/ Workshop/ Training programme attended by faculty

S.No.	Name of faculty	Programme	Organizer	Period
1	Dr.R.Balasundara prabhu	One week ISTE STTP for coordinators of Engineering Physics	IIT-Mumbai	07.09.2015 - 11.09.2015
2	Dr.S.Prasanna	2015 MRS Fall Meeting and Exhibit	MRS, USA	30.11.2015-04.12.2015
3	Mr.A.Sureshkumar	National Workshop on Luminescent Materials Devices and Applications (LMDA-15)	Luminescence society of India and Indira Gandhi Centre for Atomic Research Kalpakkam	19.08.2015-20.08.2015
4	Mr.A.Sureshkumar	ISTE short term training programme on Engineering Physics	IIT-Mumbai	8.12.2015 – 18.12.2015

S.No.	Name of faculty	Programme	Organizer	Period
5	Dr.M.D.Kannan Dr.K.Sivakumaran Dr.A.Annadurai Dr.R.Amuda Dr.A.Brinda Dr.R.Balasundara prabhu Dr.S.Prasanna Dr. R.Balaji Dr.R.Arun Kumar Mr.A.Sureshkumar Dr.P.Puviarasu Dr.N.Gokilamani Dr.D.Vasanthraj Dr.P.Kathirvel Dr.B.Uma maheswari	International workshop on theoretical and Experimental Physics	PSGCT	30.12.2015
6	Dr.A.Brinda Mr.A.Sureshkumar	NPIU sponsored Management capacity enhancement programme	NPIU	05.01.2016
7	Dr.D.Vasanth Raj	Funding Opportunities and Writing effective proposals for Research Funds	PSGIM	08.02.2016
8	Dr D Vasanth Raj	SPSS software by Dr J Sekkizhar,	PSGIM	12.02.2016- 13.02.2016
9	Dr.E.Nithya Dr D Vasanth Raj	SPSS software	PSGIM	12.02.216- 13.02.2016
10	Dr.A Brinda Mr A Suresh Kumar	Faculty Development Programme for Assistant Professors on Outcome Based Education	E.T.C (PSGCT)	30.04.2016
11	Dr M D Kannan	Leadership Enhancement for Professors	The Coimbatore Productivity Council	24.05.2016- 26.05.2016
12	Dr P Kathirvel	Smart Structures and Systems	Dept.of I&CE PSGCT	28.05.2016

2.4. Special lecture delivered

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
1	Dr.M.D.Kannan	Faculty development programme on Advance in New Engineering Materials	Recent Advances in Materials Processing	Coimbatore Institute of Technology	23.11.2015- 29.11.2015
2.	Dr.M.D.Kannan	International year 9 digit-2015 Applications of light in Science & Technology	Solar Energy and its utilization"	Kumaraguru College of Technology Coimbatore	04.12.2015
3.	Dr.M.D.Kannan	AICTE Sponsored short-term Course on	Nanomaterials and their Applications	Coimbatore Institute of Technology	02.05.2016- 08.05.2016

S.No.	Name of faculty	Title of programme	Topic	Organizer	Date
4.	Dr.M.D.Kannan	Faculty development programme on Nanomaterials	Nanomaterials and their Applications	Coimbatore Institute of Technology	November 2015
5.	Dr.S.Prasanna	Faculty development programme on Nanomaterials	Magnetron Sputtering		
6.	Dr.S.Prasanna	Workshop on Nanomaterials	Magnetron sputtering an overview	Sree Ramakrishna Engineering College	October 2015
7.	Dr.R.Arun Kumar	National Seminar on Recent Advancements in Frontier Areas of Materials Science (RAFAMS-2016)	Recent Advancements In Materials Research At GRD CMR, PSG CT	Alagappa University, Karaikudi	23.03.2016 - 24.03.2016

2.5. Faculty involvement in other activities

S.No.	Name of faculty	Activity / Role	Organization
1	Dr.M.D.Kannan	Doctoral Committee Member	PSG CT
2	Dr.R.Balasundaraprabhu	Doctoral Committee Member	Coimbatore Institute of Technology, Coimbatore
3	Dr.S.Prasanna	Doctoral Committee Member	Salem Saradha College, Erode Arts and Science College
4	Dr.R. Arun Kumar	Doctoral Committee Member	Periyar University,Salem

2.6. Award won by faculty

S. No.	Name of faculty	Nature of award	Awarded by	Date
1	Dr.S.Prasanna	Raman Research Fellowship	UGC	March 2016
2	Dr.S.Prasanna	Senior Scientist	SERB-DST, INSA and CICS	October- November 2015

2.7. Patent

S.No.	Name of faculty	Details of the patent
1	Dr.R.Balaji	Patent No.CN103069635 "PEO gels with improved conductance and solvent retention" 2015 (CHINA)

3. DEPARTMENT ACTIVITIES

3.1. Equipment addition in existing laboratories (costing ₹ 25,000 and above)

S.No.	Laboratory name	Equipment details	Cost in INR (lakhs)
1	Centre for Sustainable photovoltaic technologies, Department of Physics	UV-Visible spectrophotometer	15.5 Lakhs
2	Centre for Sustainable photovoltaic technologies, Department of Physics	Solar Simulator and Keithley source meter	9.0 Lakhs

3.2. Development of new laboratories

S. No.	Laboratory name	Date of inauguration	Major equipment details	Cost in INR (lakhs)
1.	Optical Materials Laboratory, GRD Centre for Materials Research, PSG CT	30.04.2015	Tubular furnace	6.0 lakhs
			Hot air Oven	
			UV cabinet	
			Fumehood	
			Microwave oven	
			Calcination furnace	

3.3. Sponsored research activities

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
1	Synthesis of novel phosphor materials by hydrothermal method for white LED's application	Mr.A.Suresh Kumar	UGC, Hyderabad	2014 & Completed	2 years	4.55
2	Growth and Characterization of meta Nitro aniline Single crystal for Nonlinear optical Applications	Dr.R.ArunKumar	University Grants Commission , Hyderabad	2009 Completed	3 years	1.65
3	Growth and Characterization of Rare Earth Borate -based Single crystals for UV Laser Generation	Dr.R.ArunKumar	Science and Engineering Research Board, DST, New Delhi	2012 Completed	3 years	49.33
4	Growth and Characterization of Oxide single crystals with near-biological tissue equivalency for dosimetric applications	Dr.R.ArunKumar	UGC-DAE (Kalpakkam Node) (Approved by UGC DAE, Indore)	2014 Ongoing	3 years	7.39

S.No.	Project title	Investigators	Sponsoring agency	Year of commencement & status	Duration	Grant in INR (lakhs)
5	Investigations of RF magnetron sputtered $\text{Cu}_2\text{ZnSnS}_4$ Absorber Layer for thin film solar cell applications	Dr.R.Balasundara prabhu Dr.S.Prasanna	SERB, DST	2015, on going	3 years	35.0

3.3.1. Sponsored research activities – Abstract

Synthesis of novel phosphor materials by hydrothermal method for white LED's application

Calcium dialuminate (CaAl_2O_4) doped with rare earth (Tm^{3+}) is synthesized by Pechini method and hydrothermal method. In hydrothermal method, the various parameters like pH, calcination temperature, dopant concentration and complex agent are optimized. This spectrum shows a narrow excitation peak at 359 nm which is assigned to the typical $^3\text{H}_6 \rightarrow ^1\text{D}_2$ transition of Tm^{3+} ion. Emission spectrum of $\text{Ca}_{0.99}\text{Al}_4\text{O}_7:\text{Tm}_{0.01}^{3+}$ phosphor upon excitation with 359 nm radiation, in which the major emission occurs at 460 nm corresponding to the transition of $^1\text{D}_2 \rightarrow ^3\text{F}_4$ (460 nm). The optimum concentration of the thulium is found to be 5 mol%. The $\text{Ca}_{0.95}\text{Al}_4\text{O}_7:\text{Tm}_{0.05}^{3+}$ sample clearly exhibits excellent CIE coordinates of ($x = 0.191$ and $y = 0.111$) with color purity of 73%. By JH model, it can be inferred that the energy transfer among Tm^{3+} ions occurs predominantly via the dipole – dipole interaction and the critical distance calculated was approximately equal to 3 Å. Our studies show that $\text{Ca}_{1-x}\text{Al}_4\text{O}_7:\text{Tm}_x^{3+}$ phosphor is a potential blue emitting component for UV excited W-LED's. The synthesized polycrystalline powder will be used to fabricate white LED device to achieve high colour rendering devices, color temperature, high quantum efficiency and high color purity.

Growth and Characterization of meta Nitro aniline Single crystals for Nonlinear optical Applications

This research presents the growth and characterization of organic and semi-organic single crystals that were grown by solution growth method. Research on single crystals that can be grown near room temperature are significant, as it reduces the complexity in the growth equipment. In the present project, meta nitro aniline, hippuric acid doped potassium di hydrogen phosphate, ammonium di hydrogen phosphate, triglycine sulphate, etc., were carried out in a systematic way. Several research publications were generated from the project.

Growth and Characterization of Rare Earth Borate -based Single crystals for UV Laser Generation

In this project, growth and characterization of borate-based single crystals – lanthanum calcium borate, yttrium calcium borate, laser-active ions doped borate crystals were grown and laser elements were tested. Project fellows were trained in the project. Six publications were generated from the project. The project has given rise to significant results that are in the process of patent-filing.

Growth and Characterization of Oxide single crystals with near-biological tissue equivalency for dosimetric applications

Borate compounds are mainly used for nonlinear optics and radiation dosimeters based on thermally-stimulated luminescence generally known as thermoluminescence (TL). TL dosimeters have been widely used for clinical, personal, and environmental monitoring of ionizing radiation. In this research, extensive research on the **tissue equivalent** lithium tetraborate ($\text{Li}_2\text{B}_4\text{O}_7$) crystals doped with rare earth elements and lithium potassium tetraborate (LiKB_4O_7) crystals doped with rare earth elements are undertaken.

Investigations of RF Magnetron Sputtered $\text{Cu}_2\text{ZnSnS}_4$ (CZTS) absorber layer for Thin Film Solar cells applications

The main objective of this project is to optimize the absorber layer without secondary phases and to utilize the optimized absorber layer in a thin film solar cell. The absorber layer has been deposited using RF Magnetron Sputtering in various stacking orders and substrate temperatures. The deposited CZTS absorber layer has been studied for optical, structural, morphological and electrical properties. Presently, further optimization of the absorber layer is being carried out. Finally the optimized absorber layer will be incorporated into a thin film solar cell and will be studied for its open circuit voltage, short circuit current, fill factor and efficiency.

3.4. Doctoral research

S.No.	Candidate	Short title / Area of work	Supervisor with designation & institution	Year of registration & status
1	A.S.Pugalenthi	Thin Film Solar Cells	Dr.R.Balasundara prabhu Assistant Professor	2012/ On going
2	S.Shalini	Dye sensitized solar cells		2014/ On going
3	N.Prabavathy	Dye sensitized solar cells		2015/Course work in progress
4	G.Balaji	Thin Film Solar Cells		2016/ Course work in progress
5	G.Krishnendu	CZTS thin film solar cells	Dr.S.Prasanna Assistant Professor (SG)	2016/course work in progress
6	Mr.A. Kumaresh	Growth and characterization of Borate-based single crystals	Dr. R. Arun Kumar, Assistant Professor (S. G.),	Jan 2014 / Thesis submitted
7	Mr.S. Arul	CIGS thin films for solar cell applications		Jan 2009 / Synopsis submitted
8	Mr.A. Suresh Kumar	Preparation of nano phosphor materials		Jan 2011/ On going
9	Ms.G.Thilagavathi	Growth of Non-linear optic single crystals		July 2014/On going
10	Mr.N. Ravi Kumar	Oxide crystals for radiation dosimeters		Jan 2015/On going
11	Ms.T. Gayathri	Oxide nanoparticles for MRI applications		Jan 2015/ On going
12	Mr.K. Mariselvam	Oxide glasses for luminescence applications		July 2015 / On going
13	Mr.K. Umesh	Nanomaterials for Photonic applications		July 2015 /On going
14	Mr.S. Saravanan	Nanomaterials for luminescence applications		July 2015/On going
15	Ms.P. Dhivya	Growth of organic single crystals		July 2016 /
16	Ms.N.Kanimozhi	Investigations on the magnetization dynamics of ferromagnetic thin films	Dr.R.Amuda Associate Professor	January 2015/ On going
17	Mr.Abduroof		Dr.R.Balaji Assistant Professor (SG)	January 2011/ Thesis submitted

3.5. Consultancy

S.No.	Name of faculty	Industry	Title of work	Amount in INR (lakhs)
1	Dr. R. Arun Kumar	M/s. Pricol Ltd., Coimbatore	Glasses for Endoscopic applications	1,50,000

3.6. Board of studies

S. No.	Date	Agenda	Experts
1	13.06.2015	<p>Agenda</p> <ul style="list-style-type: none"> Curriculum Development- Physics Courses for B.E./B.Tech Programmes under Choice Based Credit System – 2015 Regulation. Any other related matter 	<p>Dr G Mohan Rao Professor, Plasma Processing Lab Dept.of Instrumentation & Applied Physics, Indian Institute of Science Banglore 560 012</p> <p>Dr J Jeyapandian Head, Electronics & Instrumentation Section , Materials Science Group IGCAR, Kalpakkam -603 102</p> <p>Dr G Govindaraj Professor , Dept.of.Physics Pondicherry University, Puducherry</p> <p>Dr N Muthukumarasamy Associate Professor & Head Dept.of.Physics Coimbatore Institute of Technology Civil Aerodrome Post, Coimbatore</p> <p>Dr D Arivoli Professor , Department of Physics Anna University , Chennai 25</p> <p>Dr C K Shashidharan Nair, Professor and Head, Department of Applied Science, PSG CT, Coimbatore</p>
2	31.10.2015	<p>Agenda</p> <ul style="list-style-type: none"> Curriculum Development- 2016 Regulations Introduction of New Electives and One Credit Courses 	<p>Dr J Jeyapandian Head Electronics & Instrumentation Section Materials Science Group IGCAR, Kalpakkam -603 102</p> <p>Dr U Kamatchi Mudali Associate Director Corrosion Science & Technology Group IGCAR, Kalpakkam -603 102</p> <p>Dr D Sastikumar Professor , Dept.of.Physics National Institute of Technology</p>

S. No.	Date	Agenda	Experts
			Tiruchirapalli -620 015 Dr N Muthukumarasamy Associate Professor & Head Dept.of.Physics Coimbatore Institute of Technology Civil Aerodrome Post, Coimbatore Dr D Arivoli Professor, Crystal Growth Centre Anna University , Chennai -25 Dr C K Shashidharan Nair, Professor and Head, Department of Applied Science, PSG CT, Coimbatore- 641 004

3.7. Research publications

3.7.1. Papers published in international journals

1. A. Suresh Kumar, R. Arun Kumar, R. Balasundaraprabhu, K. Senthil, S. Ramesh Kumar, V. Gunasekaran, "Influence of calcination temperature on the luminescent properties of Eu^{3+} doped CaAl_4O_7 phosphor prepared by Pechini method", *Spectrochim. Acta Part A: Molecular and Biomolecular Spectroscopy*, 134 (2015) 283-287.
2. T. Gayathri, N. Meenakshi Sundaram, R. Arun Kumar, "Gadolinium oxide nanoparticles for MRI and cancer theranostics", *Journal of Bionanoscience*, 9(6) (2015) 409-423.
3. A. Kumaresh, R. Arun Kumar, "Characterization of a potential nonlinear optical material: sodium fluoride additive on ammonium di hydrogen orthophosphate single crystals", *Optik* 127 (4) (2015) 1922-1925.
4. S. Nirmala Sri Devi, R. Arun Kumar, E.K. Girija, "Investigations on the effect of transition metals on the growth and characterization of sodium acid phthalate single crystals", *Optik* 127 (5) (2015) 2419-2423.
5. S. Nirmala Sri Devi, R. Arun Kumar, E.K. Girija, "Growth and characterization of amino acids doped sodium acid phthalate hemihydrate single crystals", *Materials Research Innovations*, 20(4) (2015) 293-299.
6. A. Kumaresh, R. Arun Kumar, N. Ravikumar, U. Madhusoodanan, B.S. Panigrahi, K. Marimuthu, M. Anuradha, "Structural and photoluminescence studies on europium doped lithium tetraborate ($\text{Eu}:\text{Li}_2\text{B}_4\text{O}_7$) single crystal grown by microtube Czochralski ($\mu\text{T-Cz}$) technique", *Chinese Physics B*, 25(5) (2016) 058105.
7. G. Thilagavathi, R. Arun Kumar, A. Kumaresh, N. Ravikumar, "Growth and characterization of L-threonine doped thiourea single crystals: An optical material", *Materials Research Innovations*, 20(4) 2016, 254-258.
8. K. Mariselvam, R. Arun Kumar, "Borate Glasses for Luminescence Applications – Potential Materials for White LEDs and Laser Sources", *Universal Journal of Chemistry* 4(2) (2016) 55-64.
9. A.S. Pugalenthi, R. Balasundaraprabhu, V. Gunasekaran, N. Muthukumarasamy, S. Prasanna, S. Jayakumar, "Effect of thickness on the structural, optical and electrical properties of RF magnetron sputtered GZO thin films", *Materials Science in Semiconductor Processing*, 29 (2015) 176-182.
10. A.S.Pugalenthi, R. Balasundaraprabhu, V.Thilagavathy, N. Muthukumarasamy, S. Prasanna, S. Jayakumar, "Effect of substrate temperature on structural, morphology and optical properties of RF magnetron sputtered CZT thin films", 30(4) (2015) 200-225.
11. D. Geethalakshmi, N. Muthukumarasamy, R. Balasundaraprabhu, "CSA-doped PANI/TiO₂ hybrid BJJ solar cells – Material synthesis and device fabrication", *Materials Science in Semiconductor Processing*, 51 (2016) 71–80.
12. S. Shalini, R. Balasundara prabhu, S. Prasanna, Tapas K. Mallick, S. Senthilarasu, "Review on natural dye sensitized solar cells: Operation, materials and methods", *Renewable and Sustainable Energy Reviews*, 51 (2015) 1306 – 1325.
13. S. Shalini, R.Balasundaraprabhu, T. Satish Kumar, N. Prabavathy, S. Senthilarasu, S. Prasanna, "Status and outlook of sensitizers/dyes used in dye sensitized solar cells (DSSC): a review", *International Journal of Energy Research*, (2016) DOI: 10.1002/er.3538.

14. A. Senthilkumar, R. Balaji, P. Puviarasu, S. Jayakumar, "Microwave And Conventional Sintering Of Gadolinium Doped Barium Cerate: A Comparative Study", *Optoelectronics and advanced materials – rapid communications*, 9 (2015) 5-6
15. S. Padmaja, S. Jayakumar, R. Balaji, "CdS:PMMA nanocomposite solid films with enhanced properties", *Materials Technology*, 2015 (accepted)
16. K. Abduraof, R. Balaji, S. Jayakumar, G. M. Joshi, "Synthesis of abnormal grain growth free strontium barium niobate by microwave assisted sintering", *Ferroelectrics*, 2015 (accepted)

3.7.2. Papers presented in international conferences

1. Prasanna, A K Nanda Kumar, G Mohan Rao and R. Balasundaraprabhu, "XPS and STEM investigations on the Al₂O₃ thin film – Si <100> Interface", *Materials Research Society (MRS)*, USA during November 30 - December 4, 2015

3.7.3. Papers presented in national conferences

1. R.Arun Kumar, "Synthesis and growth of Eu:Li₂B₄O₇ nonlinear optical single crystals: An optoelectronic material", *Materials Science and Technology* organized by the Department of Chemistry, Indian Institute of Space Science and Technology, Thiruvananthapuram during July 6-8, 2015.

3.8. Visits abroad

3.8.1. Visits by faculty

S.No.	Name of faculty	Place of visit	Period	Purpose
1	Dr.S.Prasanna	Boston, USA and MIT, USA	November-December 2015	To deliver talk in 2015 MRS Fall Meeting and Exhibit To visit the Department of Physics in MIT

4. STUDENT ACTIVITIES

4.1. Association activity

S.No.	Topic	Chief guest & affiliation	No. of participants	Date
1	Year of Light and 2014 Nobel Prize in Physics	Dr.E.S.Rajagopal, IISc, Bangalore	200	27.10.2015
2	Smart Materials and Sensors	Dr.V.Natarajan, NPOL, Cochin	200	18.01.2016

5. SUMMARY

S. No.	Activity	No.
1	International workshops conducted	1
2	National Workshops conducted	1
3	Short-term training programs conducted	2
4	Sponsored research projects ongoing	5
5	Sponsored research projects completed till date	1
6	Scholars pursuing doctoral research	17
7	Papers published in international journals	16
8	Papers presented in international conferences	1
9	Papers presented in national conferences	1
10	Patents obtained	1
11	Awards won by faculty	2

DEPARTMENT OF PHYSICAL EDUCATION

ABOUT THE DEPARTMENT

The Department of Physical Education covers an area of five acres located near the hostel premises. The department has an infrastructure for all the indoor and outdoor games. The department is headed by a Physical Director, assisted by two Assistant Physical Directors and one Physical Training Instructor along with three markers as supporting staff. The activities are held throughout the year, every day, from 6.30 am to 6.30 pm.

The department has sufficient facilities for both indoor and outdoor games for the students to practice and to conduct Intra-Collegiate, Inter-Collegiate tournaments, Intramural Sports and Coaching Camps. The infrastructure includes a Foot ball field and a Hockey field. The management has spent about a crore for two Basket ball courts and up graded the existing, by constructing an Indoor stadium with a seating capacity of 3000 and also added two sets of portable basket ball post with fibre glass boards worth of Rs.7,00,000 per set . The indoor stadium has been provided with a complete set of new flood lights worth of Rs.2,50,000. The department has already added synthetic floor surface for one court. Two Handball courts, two clay courts and one hard court for Tennis, five Volleyball courts, one Throwball court, two Ball Badminton courts, two Sepaktakraw courts, two Tennikoit courts, one Kho-Kho court, three Cricket pitches for net practice and one well-maintained pitch for matches. An open air stadium with a stage and a pavilion on both the sides with a balcony which can accommodate about 1000 students is also available.

The facilities in the department enable students to participate in indoor games. There are two games halls with each measuring 80' x 40'. One of the games halls has the provision for playing Table Tennis and Chess. A gym is attached with the other games hall. The gym has been equipped with number of single and multi-stationed machines and other weight training accessories are available to provide the students an arena to keep themselves fit. The physical director's office and store rooms are also available in this hall. In addition to one old indoor badminton court (80' X 40') which is available with a seating capacity of about 500, two more new courts were established by our management (100'x40') with a seating capacity of 1000. Apart from these gym equipments, two parallel bars, a pull-ups bar, climbing rope and roman rings are also available for the students to develop their physique.

The physical education classes have been made compulsory for the first year students. The students are being taught about the basic health education, various types of conditioning exercises to develop their physical fitness and various games according to their proficiency and taste. A talent hunt among the first year students is made every year in order to include the potential players in the college team. In order to provide an opportunity to exhibit their talents, Intra College and Intramural tournaments are organized. Training on advanced skills and tactics are being conducted for the players by inviting eminent coaches. The annual record reflects the teams' strength and their position in Anna University. The girls are encouraged to a great extent to participate in various games & sports. The students have set up an impressive and consistent record of performance in almost all games and sports. They take part in the Inter-collegiate, Inter-University and various other local tournaments and have won many laurels. Students are given exemptions in attendance while they represent the college in the competitions. The students have been exhibiting good discipline and co-operative spirit throughout the year. To encourage and recognize the students who attain individual honours such as representing university, district, state and country, they are honoured with the Star Sports Person Award during the Annual Sports Day.

The facilities available in our campus provide an arena for district, state and national sports bodies to utilize it to train sports persons of various desciplines, by the way we develop good rapport with the

official sports bodies and this helps in organizing the national and state level tournaments successfully.

Apart from various intramural and extramural competitions, the 51st PSG Trophy All India Basketball for men, the prestigious and the oldest tournament in the history of Indian Basketball was organised in a grand manner. This tournament attracts all leading teams in the country and it inspires the inmates of PSG College of Technology. We have also conducted the 13th All India Basket ball tournament for women for CRI Pumps Trophy. These tournaments are completely organized by the students which give them an excellent opportunity to develop their leadership qualities and managerial skills.

1. FACULTY

S.No.	Name & designation with highest qualification	e-mail id	Year of Joining	Areas of Specialization
1	Dr.S.Somasundaramoorthy, PhD Physical Director	ssm@phe.psgtech.ac.in	1997	Basket ball
2	Ms.J.B.Faritha Begum, M.Phil Assistant Physical Directress	jbf@phe.psgtech.ac.in	1998	Volley ball
3	Mr.C.Rajapandian, M.Phil Assistant Physical Director	crp@phe.psgtech.ac.in	2008	Hand ball
4	Mr.V.Padmanabhan, D.PEd., Physical Training Instructor		2016	Kho-kho

2. FACULTY DEVELOPMENT

2.1. Higher study

S.No.	Name of faculty	Programme	Year of joining &status
1	Ms.J.B.Faritha Begum	Ph.D	2011, Ongoing
2	Mr.C.Rajapandian	Ph.D	2013, Ongoing

2.2. Faculty involvement in other activities

S.No.	Faculty	Activity/Role	Organization
1.	Dr.S.Somasundaramoorthy	Selection Committee Member	Anna University - Zonal Basket Ball and Badminton (Men)
		Executive Committee Member	Coimbatore District Hockey Association
		Executive Committee Member	Engineering Colleges Physical Educationist Club
		Technical Committee Member	Coimbatore District Basketball Association
		Tournament Committee Member	Coimbatore District Cricket Association
2.	Ms.J.B.Faritha Begum	Selection Committee Member	Anna University - Zonal Volleyball & Badminton (Women)
3.	Mr.C.RajaPandian	Selection Committee Member	Anna University - Zonal Hand Ball and Table Tennis (Men)

3. STUDENT ACTIVITIES

3.1. Co-curricular and extra-curricular activities

S.No.	Title of Programme	Dates	No. of participants
1.	2 nd Golden Jubilee State Level Basket ball Tournament for men	01.07.2015 - 05.07.2015	448
2.	51 st All India Basket Ball Tournament for men for PSG Trophy and 14 th All India Basket Ball Tournament for women for CRI Pumps Trophy	10.08.2015 - 15.08.2015	224
3.	Anna University Zone -9 (Badminton & Basket Ball – Men)	18.08.2015 - 19.08.2015	200
4.	5 th Intra-collegiate 7's Throw ball Tournament for women	19.08.2015 - 23.08.2015	530
5.	14 th PSG Tech Intra Collegiate 5's Football Tournament for men	06.01.2016 - 08.01.2016	560
6.	9 th Takraw 3's Intra Collegiate Sepaktakraw tournament for men	07.01.2016 - 09.01.2016	132
7.	8 th Intra – College 3's Volley Ball tournament for men & women	29.01.2015 & 30.01.2015	373
8.	7 th Centies Championship (Volley Ball, Basket Ball, Badminton, Table Tennis ,Kho-Kho for Men, Kho-Kho, Throw ball, Badminton for Women and Chess for combined)	30.01.2016 - 02.02.2016	1290
9.	11 th Inter State Level Sepaktakraw Tournament for PSG TECH Trophy	12.02.2016 - 14.02.2016	140
10.	12 th PSG Tech Mini Marathon	28.02.2016	972
11.	10 th State level Inter Engineering Hand Ball Tournament for PSG Tech Trophy	20.02.2016 - 22.02.2016	224
12.	Annual Intramurals (Games & Sports)	29.01.2016 - 10.03.2016	1100
13.	10 th Tech Hockey League for Major Dhyan Chand Memorial Trophy	17.03.2016 - 20.03.2016	108
14.	6 th Intra – Collegiate Doubles Ball Badminton tournament for men & women	28.03.2016 & 29.03.2016	400
15.	2 nd Inter college PSG Tech Fives Foot ball Tournament - Men	01.04.2016 & 05.04.2016	220

3.2 Achievement by student

3.2.1. Representation in university teams

S.No.	Name of the student	Year/ Branch	Roll no	Achievement
1.	R. Gangadhar	IV B.E Mech	12M120	Represented Anna university in the State level Inter University Table Tennis Tournament for Men
2.	R. Keerthi Kumar	V BE SW EEE	11E618	Represented Coimbatore South District in the Senior Kho-Kho State Championship for Men
3.	P. Subhashriharini	IV BE EEE	3E501	Represented Coimbatore District in the

S.No.	Name of the student	Year/ Branch	Roll no	Achievement
4.	M. Sneha	III BTECH IT	13T125	13 th Senior State Throw Ball Championship for Women
5.	K. Latchiya	II BE RAE	14R219	
6.	J. Sobbiya	II BE CSE		
7.	A. Balaji	I BE Mech		Represented Anna University Fencing team in the All India Inter University Championship for men
8.	V. Lakshmi narayanan	III BE SW EEE	13E634	Represented Tamil Nadu in the 25 th Senior National Sepak Takraw Championship for Men
9.	Akshaya Nandakumar	II BE ECE	14L101	Represented India in the Asian Youth Chess Championship

3.2.2. Achievement by student (Games)

S.No.	Event	Name of the tournament	Venue & date	Date	No of students	Results
1.	Badminton (M)	Anna University Zone -9	PSG CT, Coimbatore	18.08.2015 - 19.08.2015	7	Winners
		7 th Centies Championship	PSG CT, Coimbatore	30.01.2016 - 31.01.2016	4	Runners up
		Arut Selvar Dr.N.Mahalingam Rolling Trophy	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	4	Runners up
	Badminton (W)	Anna University Zone -9	PSG CT, Coimbatore	18.08.2015 - 19.08.2015	4	Runners up
		7 th Centies Championship	PSG CT, Coimbatore	30.01.2016 - 31.01.2016	4	III Place
		Arut Selvar Dr.N.Mahalingam	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	4	Runners up
2	Ball Badminton (M)	Anna university Zone -9	Tamilnadu College of Engg., Karumathampatti	21.09.2015 - 22.09.2015	10	IV Place
		7 th Centies Championship	Coimbatore Institute of Technology, Coimbatore	30.01.2016 - 31.01.2016	10	Lost in first round
		Park Alumni Trophy	Park College of Engg & Technology, Kaniyur	24.01.2016 - 26.01.2016	10	Quarter Finalist
		Arut Selvar Dr.N.Mahalingam Rolling Trophy	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	10	Quarter Finalist

S.No.	Event	Name of the tournament	Venue & date	Date	No of students	Results	
	Ball Badminton (W)	4 th SNR Chinnaswamy Memorial Trophy	Sri Ramakrishna College of Engineering, Vattamalaipalayam	24.07.2014 - 25.07.2015	10	Runners-up	
		Anna university Zone -9	Park College of Engineering & Technology Coimbatore	21.09.2015- 22.09.2105	10	Winners	
		7 th Centies Championship	Coimbatore Institute of Technology, Coimbatore	06.01.2016 - 07.01.2016	10	Lost In First Round	
		CIT Trophy		13.03.2016 - 15.03.2016	10	Winners	
3.	Chess (M&W)	Anna University Zone -9	Maharaja Institute of Technology Coimbatore	24.08.2015 - 25.08.2015	5	Winners	
		Anna University Inter - Zone	Sri Krishna College of Engineering, Coimbatore	13.09.2015 - 14.09.2015	5	III Place	
		7 th Centies Championship	Sri Shakthi Institute of Engineering and Technology, Coimbatore	01.02.2016	5	Sixth Place	
4.	Basket Ball (W)	Anna University Zone -9	KPR Institute of Engineering & Technology Coimbatore	20.08.2015- 21.08.2015	12	Winners	
		Anna University Inter - Zone	Hindustan College of Engg & Tech Coimbatore	28-11-15	12	Lost in first round	
		CIT Trophy	Coimbatore Institute of Technology, Coimbatore	13.03.2016 - 15.03.2016	12	Runners-up	
		7 th Centies Championship	PSG CT, Coimbatore	30.01.2016 - 31.01.2016	12	Quarter Finalist	
	Basket Ball (M)	Anna University Zone -9	KPR Institute of Engineering & Technology Coimbatore	28.09.2015 - 30.09.2015	12	Winners	
		Anna University Inter - Zone	Hindustan College of Engg &Tech Coimbatore	28-11-15	12	Lost in first round	
	5.	Cricket (M)	Anna University Zone -9	KPR Institute of Engineering & Technology Coimbatore	19.09.2015- 23.09.2015	16	Runners-up

S.No.	Event	Name of the tournament	Venue & date	Date	No of students	Results
		CDCA Inter Collegiate Tournament for	SNR College of Arts and Science, Coimbatore	05.01.2016 - 10.01.2016	16	Lost in first round
		CDCA League Tournament	9 matches spread throughout the year was played on Sundays & holidays		25	Retained in "c" Division
6.	Foot Ball (M)	7 th Centies Championship	Coimbatore Institute of Technology, Coimbatore	-	18	Winners
		CIT Trophy		13.03.2016 - 15.03.2016	18	Winners
		Anna University Zone -9		03.10.2015 - 05.10.2015	18	Winners
		Anna University Inter Zone	Kongunadu College of Engineering & Technology, Namakkal from	28.11.2015- 30.11.2015	18	Lost in first round
		CDFA League Tournament	9 matches played	November & December 2015	18	Won the "B" Division Champion - ship
		23 rd Karunya Evangeline Memorial Tournament	Karunya University Coimbatore		18	Lost in first round
7.	Hand Ball (M)	Anna University Zone -9	KPR Institute of Engineering & Technology Coimbatore	18.09.2015- 19.09.2015	14	III Place
		4 th SNR Chinnaswamy Memorial Trophy	Sri Ramakrishna College of Engineering, Vattamalaipalayam	24.07.2015 - 25.08.2015	14	Lost in second round
		10 th State level Inter Engineering Hand Ball Tournament for PSG Tech Trophy	PSG College of Technology, Coimbatore	20.02.2016 - 22.02.2016	14	IV Place
		COLOSEUM'16	Sastra University, Thanjavur	27.02.2016 - 01.03.2016	12	III Place
8.	Hockey (M)	Anna University Zone-9	Coimbatore Institute of Technology, Coimbatore	13.10.2015 - 14.10.2015	16	Lost in first round
		Park Alumni Trophy	Park College of Engg & Technology, Kaniyur	24.01.2016 - 26.01.2016	16	Lost in first round

S.No.	Event	Name of the tournament	Venue & date	Date	No of students	Results
9.	Kho- Kho (M)	Anna University Zone -9	Park College of Engineering & Technology Coimbatore	21.09.2015 - 22.09.2105	12	Winners Runners-up
		6 th Thiru Karvmuttu Thiagarajan Chettiar Memorial State Level Inter-Engineering Men's Kho-Kho tournament	Thigarajar College of Engineering Madurai	09.03.2016 - 10.03.2016	12	III Place
		7 th Centies Championship	PSG CT, Coimbatore	01.02.2016 - 02.02.2016	12	Winners
		Anna University Inter-Zone	Saveetha Engineering College, Chennai	12.01.2016 - 14.01.2016	12	Quarter Finalist
	Kho- Kho (W)	7 th Centies Championship	PSG CT, Coimbatore	01.02.2016 - 02.02.2016	12	Winners
Arut Selvar Dr.N.Mahalingam Rolling Trophy		Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	12	Runners-up	
10.	Sepaktakraw (M)	11 th Inter-State level Tournament for PSG Tech Trophy	PSG CT, Coimbatore	12.02.2016 - 14.02.2016	17	II Place in Doubles event and Team event & III Place in
11.	Table Tennis (W)	Anna University Zone -9	Tamilnadu College of Engg, Karumathampatti	13.08.2015 - 14.08.2015	5	Runners-up
		7 th Centies Championship	Sri Shakthi Institute of Engineering and Technology, Coimbatore	01.02.2016	5	Runners-up
		Sri Krishna Trophy	Sri Krishna College of Engineering and Technology Coimbatore	-	5	IV Place
	Table Tennis (M)	Anna University Zone -9	Park College of Engineering & Technology Coimbatore	13.08.2015 - 14.08.2015	5	Winners
		Anna University Inter-Zone	Abdul Hakeem College of Engineering, Vellore		5	IV Place

S.No.	Event	Name of the tournament	Venue & date	Date	No of students	Results
		7 th Centies Championship	Sri Shakthi Institute of Engineering and Technology, Coimbatore	-	5	Winners
		Sri Krishna Trophy	Sri Krishna College of Engineering and Technology Coimbatore	01.02.2016	5	IV Place
12.	Volley Ball(M)	4 th SNR Chinnasamy Naidu Memorial Tournament	Sri Ramakrishna College of Engineering, Vattamalaipalayam	24.07.2015 - 25.07.2015	12	IV Place
		7 th Centies Championship	PSG CT, Coimbatore	01.02.2016 - 02.02.2016	12	Runners-up
		Anna University Zone -9	RVS college of Engg & Technology, sulur	01.09.2015 - 02.09.2015.	12	IV Place
		Park Alumni Trophy	Park College of Engg & Technology, Kaniyur	24.01.2016 - 26.01.2016	12	Lost in first round
		Arut Selvar Dr.N.Mahalingam Rolling Trophy	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	12	Lost in first round
	Volley Ball (W)	Anna University Zone- 9	Sri Shakthi Institute of Engineering and Technology, Coimbatore	03.10.2015 - 04.10.2015	12	Winners
		7 th Centies Championship	PSG CT, Coimbatore	01.02.2016 - 02.02.2016	12	Runners-up
		COLOSEUM'16	Sastra University, Thanjavur	27.02.2016 - 01.03.2016	12	Winners
		Arut Selvar Dr.N.Mahalingam Rolling Trophy	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	12	Winners
13.	Throw Ball (W)	Arut Selvar Dr.N.Mahalingam Rolling Trophy	Kumaraguru College of Technology, Coimbatore	15.08.2015 - 16.08.2015	14	Runners-up
		7 th Centies Championship	PSG CT, Coimbatore	31.01.2016 - 01.02.2016	14	Runners-up
		Park Alumni Trophy	Park College of Engg & Technology Kaniyur	24.01.2016 - 26.01.2016	14	Winners
		COLOSEUM'16	Sastra University, Thanjavur	27.02.2016 - 01.03.2016	14	Runners-up

3.2.3. Achievements by students (Athletics)

S.No.	Name of the student	Roll No.	Event	Name of the Competition , Venue & Date	Result
1.	Hemaleka.M	11E610	Long Jump & 100mts Hurdles	Anna University Zone -9 KPR Institute of Engg & Technology, Arasur. 06.10.15 & 08.10.15	I Place
2.	Senbagam. S	13E144	Half Marathon		I Place
			10000 Mts		III Place
3.	Akila.J	12I304	Heptathlon		II Place
			400 Mts Hurdles		III Place
4.	Jayameena.S	13T211	Half Marathon		II Place
			10000 Mts		II Place
5.	Praitayini.K	13D231	High Jump		I Place
6.	Karthika.P	12S016	5km Walk		III Place
7.	Sharmeela Banu.A	13H233	5000 Mts & 800 Mts		I Place
8.	Nijitha. S		Triple Jump		I Place
9.	Kalpana. S	14Y131	Triple Jump		III Place
10.	Shruthi.S	15C122	Discus Throw		I Place
11.	Swetha.S	12H238	Shotput		II Place
			Javelin Throw		III Place
12.	Laxman Prabha. G	14X028	4x 100 Mts Relay		II Place
	Hemaleka. M	11E610			
	Pavithra. S	12B227			
	Nandhini. B	15L131			
13.	Hemaleka. M	11E610	4x 400 Mts Relay		II Place
	Senbagam. S	13E144			
	Dheepika. S.P	13H207			
	Kalpana.s	14Y121			
14.	Mathan Kumar. K	14M230	5000 Mts		II Place
15.	Pugalvanan. C	14M245	800 Mts		III Place
16.	Sasidharan. N	13M155	Walking	III Place	
17.	Ananda Roopan.M	12M107	Half Marathon	II Place	
18.	Karthick. N	13M124	Shotput	II Place	
			Discus Throw	I Place	
19.	Manikandan.D	13M133	Decathlon	II Place	
20.	Manikandan.D	13M133	4X 400 Mts Relay	III Place	
	Mathan Kumar. K	14M230			
	Pugalvanan. C	14M245			
	Kavin Raj. I	12M625			
21.	Shobana. M	15L243	Shotput	II Place	
22.	Hemaleka. M	11E610	4X 400 Mts Relay	7 th CENTIES CHAMPIONSHIP Athletic Meet 2016	
	Senbagam. S	13E144			
	Dheepika. S.P	13H207			
	Kalpana.s	14Y121			
23.	Mathan Kumar. K	14M230	1500 Mts	III Place	
24.	Eswaran. M	13I311	Javelin Throw	I Place	
25.	Sanjay. R	14R238	Shotput	Coimbatore II Place	

S.No.	Name of the student	Roll No.	Event	Name of the Competition , Venue & Date	Result	
26.	Kavin Raj. I	12M625	4x 100 Mts Relay	Institute of Technology, Coimbatore 31.01.2016	II Place	
	Mukesh Kumar. P	12A227				
	Pragadesh. V	12I333				
	Valava. S.R	14Y131				
27.	Manikandan.D	13M133	4x 400 Mts Relay		Institute of Technology, Coimbatore 31.01.2016	I Place
	Mathan Kumar. K	14M230				
	Kavin Raj. I	12M625				
	Kumar. A	12R223				

3.2.4. Achievement by students (Differently Abled)

S.No.	Name	Roll No.	Event	Results
1.	V.Gokul	14A221	Discus & Javelin Throw	I Place
2.	M.Prasanth	14C117	Javelin & Shot put Throw Discus Throw	I Place II Place
3.	C.Satheesh	14Z243	Discus Throw	III Place
4.	T.Thiru Murugan	13T127	Discus, Javelin & Shot put Throw	III Place
5.	P.Hemamalani	14C402	100mts Javelin Throw Discus Throw	I Place II Place III Place
6.	V.Subhash Chandra Boss	14E156	Shotput Throw	II Place
7.	C.Renugadevi	12I 240	100mts, Javelin & Discus Throw	I Place
8.	S.B.Suriya	13B243	Discus, Javelin Throw & 100mts	II Place
9.	D.Aakash Mari	14M101	Shotput Throw	III Place

3.2.5. Award received from the university (Games and Athletics)

S.No.	Name of the award	Place
1.	Anna University Zone-9 Overall Championship for Games & Athletics for Men and Women	I Place