Third National Level
RESEARCH CONCLAVE 2024
MAY 16 – 17, 2024

Theme:
“Bridging Knowledge Gaps for a Sustainable Future”

Organized by
PSG College of Technology
Coimbatore 641004

For any queries, contact:
Organizing Secretary
Research Conclave 2024
PSG College of Technology,
Peelamedu, Coimbatore-641004
https://www.psgtech.edu/rc2024/
res.conclave@psgtech.ac.in
0422 4344777 (ext-4484, 4359, 4160, 4553, 4165, 4513)
# About the College

PSG College of Technology (PSG CT), established in the year 1951 by PSG & Sons’ Charities, is an ISO 9001 - 2015 certified autonomous college affiliated to Anna University, Chennai. The college offers 21 undergraduate programmes and 24 postgraduate programmes including Engineering and Technology, Computer Applications, Management Sciences, Basic and Applied Sciences. PSG CT is equipped with several state-of-the-art Centers of Excellence that include TIFAC-Core in Product Design, Machine Tool Research Centre, Engineering Design Centre, Virtual Reality Centre, Tool and Die Centre, Centre for Nano-technology, Centre for Robotics, Centre for excellence in Artificial Intelligence and Software, Centre for Non-Linear Dynamics, Danfoss Centre of Excellence in Climate and Energy, Centre of Excellence for Welding Engineering and Technology. Under the banner of PSG Industrial Institute, there are in-campus manufacturing units of machine tools, pumps, motors and off-campus foundry units. Furthermore, PSG CT has established very good network with industry, research institutes, alumni and entrepreneurs. PSG CT was ranked second under Colleges/Institutes (Govt. & Govt. Aided) (Technical) by ATAL Ranking of Institutions in Innovation Achievements (ARIIA), Ministry of Education, Government of India in the year 2021 and the best industry linked institution by AICTE-CII in the year 2012. During the occasion of India assuming the G20 Presidency on December 1, 2022, PSG CT was identified as one among the 75 educational institutions across India, with special responsibilities towards organizing special lectures, student exchange programmes, academic and cultural activities to spread awareness among the youth and the academic community on the G20 agenda.

# About Research Conclave 2024

Continuous advancements in science and technology have a profound impact on the human life and environment. In order to address these concerns, scientists and academicians pursue multidisciplinary research in various fields of science and technology. Updating of knowledge and sharing of information necessitate a platform for addressing these issues in an effective and timely manner. This research conclave 2024 is envisaged as a forum for students, young researchers, innovators, academicians and professionals to exchange their ideas, and present solutions to problems towards advancements in the area of science and technology. Research conclave 2024 focuses on thrust areas such as automation, automotive systems, smart buildings, smart manufacturing, energy management, control systems, material development, water crisis management, application of generative AI, health care, green IT/computing etc. The objectives of this research conclave are to showcase ongoing research activities by scholars of PSG CT and other institutes, provide a platform for the exchange of thoughts among distinguished guests, faculty and scholars from various disciplines, inspire and encourage research scholars to demonstrate innovative research work.

# CALL FOR PAPERS

Participants from Academia, R&D organizations are invited to submit original and unpublished full length research papers on the following topics, but not limited to

## Green Energy and Sustainable Development
- Smart Grid and Energy Management
- Sustainable Smart Technologies
- Green Energy
- Electric Mobility and Energy Storage Systems
- Green Computing
- Design for Sustainability
- Sustainable and Technical Textiles
- Earthquake and Sustainable Disaster Management
- Vibration and Acoustics
- Engineering Materials and Processing
- Sustainable Civil Engineering Structure and Construction Materials

## Automation and Digital Transformation
- Industrial Automation
- Internet of Things (IoT) and Embedded systems
- Wearable and Smart Textiles
- Cyber and Physical Systems
- Logistics & Supply Chain Automation
- Intelligent Sustainable Manufacturing

## Disruptive Technologies in Computing
- Artificial Intelligence and Data Science
- Blockchain Applications
- Cyber Security
- Cyber Forensics
- Machine Learning and Deep Learning
- High Performance Computing
- Intelligent Systems
- Wireless Communications and Networking
- Computer Vision and Pattern Recognition
- 5G and Next-Gen Networking

## Electronic Systems Technology
- Robotics and Control Systems
- Power Electronics and Drives
- Micro and Nano Electromechanical Systems
- Digital Controllers and Real-Time Systems
- System on Chip
- Signal and Image Processing
- VLSI Systems

## Advances in Biomaterials and Biotechnology
- Medical, Pharmaceutical and Food Technology
- Bio Fuels
- Bioinformatics
- Bioprocess Technology
- Biomedical Instrumentation
- Biomaterials
- Nanotechnology Applications
- Biosensors

## Physical and Computational Sciences
- Theoretical Physics
- Electrochemistry
- Quantum Computing
- Organic Synthesis
- Mathematical Analysis and Applications

## Humanities and Entrepreneurship
- Entrepreneurial Business Model
- Literature and Human Values
- Economics and Management
- Linguistics, ELT and Contemporary English
- Market Competition and Disruptive Strategies
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Important Information

Abstract acceptance will be intimated through Email
Paper Submission & Author Guidelines visit
https://www.psgtech.edu/rc2024/

Conclave Registration

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<tr>
<th>Students</th>
<th>Rs. 750/-</th>
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<tr>
<td>Faculty members/Research Scholars</td>
<td>Rs. 1000/-</td>
</tr>
<tr>
<td>Industry participants</td>
<td>Rs. 1250/-</td>
</tr>
</tbody>
</table>

Payment of registration fee for Research Conclave 2024 can be made through online mode
Payment type: Internet Banking
Account Number: 1481267367
Account Holder: PSG Centre for Non-formal and Continuing Education (PSG CNCE)
Bank Name: Central Bank of India
Branch Name: Peelamedu
IFSC Code: CBIN0280913

Dates to Remember

Full paper submission Deadline: April 12, 2024
Acceptance of Notification: May 3, 2024
Final submission: May 10, 2024

Note:
A bonafide certificate is needed for external participants.
No registration fee for UG/PG/PhD Scholars from PSG CT.

Industry participants are invited to submit short case studies on their R & D activities. The papers submitted will be subjected to plagiarism detection to verify their originality by the organizing institution, prior to the technical review process.

RC 2022

RC 2023

Glimpses of Past CONCLAVES

Tentative Schedule

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<th>Day 1 - May 16, 2024</th>
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<tr>
<td>08:15 am - 08:50 am Registration</td>
<td>09:00 am - 09:45 am Keynote 4</td>
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<tr>
<td>09:00 am - 10:00 am Inaugural function</td>
<td>09:45 am - 11:00 am Keynote 5</td>
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<tr>
<td>10.00 am - 10.45 am Keynote 1</td>
<td>11:00 am - 11:15 am Refreshments</td>
</tr>
<tr>
<td>10:45 am - 11:00 am Refreshments</td>
<td>11:15 am - 1.15 pm Technical sessions in respective departments</td>
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<tr>
<td>11:00 am - 11:45 am Keynote 2</td>
<td>1:15 pm – 02:00 pm Lunch break</td>
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<tr>
<td>11:45 am - 12:30 pm Keynote 3</td>
<td>03:00 pm - 04:00 pm Valedictory function</td>
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<tr>
<td>12:30 pm - 01:30 pm Lunch break</td>
<td>04:00 pm – 04:30 pm Refreshments</td>
</tr>
<tr>
<td>01:30 pm – 03:30 pm Technical sessions in respective departments</td>
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</tr>
<tr>
<td>03:15 pm – 04:00 pm Refreshments</td>
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