Courses of Study and Scheme of Assessment

ME APPLIED ELECTRONICS

(2018 REGULATIONS)

(Minimum No. of credits to be earned: 75*)

Course Code	Course Title	Hours/Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
I SEMESTER									
18EA01	Mathematics of Systems Engineering	2	2	0	3	50	50	100	PC
18EA02	Embedded Controllers and Applications	3	0	0	3	50	50	100	PC
18EA03	Digital System Design and Testing	3	2	0	4	50	50	100	PC
18EA04	VLSI Design	3	0	0	3	50	50	100	PC
18EA05	Object Computing and Data Structures	3	2	0	4	50	50	100	PC
18EA51	Circuits and Systems Simulation Laboratory	0	0	4	2	50	50	100	PC
18EA81	English for Research Paper Writing	0	0	**	Grade	0	0	0	MC
Total 24 hrs		**14**	**6**	**4**	**19**	**300**	**300**	**600**	
II SEMESTER									
18EA06	Analog VLSI Design	3	0	0	3	50	50	100	PC
18EA07	Advanced Digital Signal Processing	3	2	0	4	50	50	100	PC
18EA08	Computer Architecture and Parallel Processing	3	0	0	3	50	50	100	PC
18EA09	Embedded System Design	3	2	0	4	50	50	100	PC
18EA__	Professional Elective 1	3	0	0	3	50	50	100	PE
18EA__	Professional Elective 2	3	0	0	3	50	50	100	PE
18EA52	Electronic System Design Laboratory	0	0	4	2	50	50	100	PC
18EA61	Industrial Visit and Technical Seminar	0	0	4	2	50	50	100	EEC
18EA82	Research Methodology and IPR	0	0	**	Grade	0	0	0	MC
Total 30 hrs		**18**	**4**	**8**	**24**	**400**	**400**	**800**	
III SEMESTER									
18EA__	Professional Elective 3	3	2	0	4	50	50	100	PE
18EA__	Professional Elective 4	3	0	0	3	50	50	100	PE
18EA__	Professional Elective 5	3	0	0	3	50	50	100	PE
18EA__	Professional Elective 6	3	0	0	3	50	50	100	PE
18EA53	Applied Electronics Laboratory	0	0	4	2	50	50	100	PC
18EA71	Project Work I	0	0	6	3	50	50	100	EEC
Total 24 hrs		**12**	**2**	**10**	**18**	**300**	**300**	**600**	
IV SEMESTER									
18EA72	Project Work II	**0**	**0**	**28**	**14**	50	50	100	EEC
ELECTIVE 3 Associated With Centre of Excellence (One to be opted)									
18EA21	Virtual Instrumentation Systems	3	2	0	4	50	50	100	PE
18EA22	Internet of Things	3	2	0	4	50	50	100	PE
18EA23	Totally Integrated Automation	3	2	0	4	50	50	100	PE
ELECTIVE THEORY COURSES(Five to be opted)									
18EA24	Algorithms for VLSI Design Automation	3	0	0	3	50	50	100	PE
18EA25	VLSI Testing and Testability	3	0	0	3	50	50	100	PE
18EA26	Mixed Signal VLSI Design	3	0	0	3	50	50	100	PE
18EA27	Hardware Design Verification Techniques	3	0	0	3	50	50	100	PE
18EA28	System on Chip	3	0	0	3	50	50	100	PE
18EA29	ASIC Design	3	0	0	3	50	50	100	PE
18EA30	Operating Systems	3	0	0	3	50	50	100	PE
18EA31	Linear Systems	3	0	0	3	50	50	100	PE
18EA32	Linux Architecture	3	0	0	3	50	50	100	PE
18EA33	Wireless Sensor Networks	3	0	0	3	50	50	100	PE
18EA34	Electronic Product Design	3	0	0	3	50	50	100	PE
18EA35	Digital Image Processing	3	0	0	3	50	50	100	PE
18EA36	Digital Video Processing	3	0	0	3	50	50	100	PE
18EA37	Wavelets and Applications	3	0	0	3	50	50	100	PE
18EA38	Biosignal Processing	3	0	0	3	50	50	100	PE
18EA39	Optimization Techniques	3	0	0	3	50	50	100	PE
18EA40	Internetworking and Applications	3	0	0	3	50	50	100	PE
18EA41	Soft Computing	3	0	0	3	50	50	100	PE
18EA42	Machine Learning and Applications	3	0	0	3	50	50	100	PE
18EA43	Industrial Drives for Automation	3	0	0	3	50	50	100	PE

***** Indicated is the minimum number of credits to be earned by a student.

** - 60 hrs in I semester and 90 hrs in II semester; Grade: Pass/Fail

CAT – Category; PC – Professional Core; PE - Professional Elective EEC – Employability Enhancement Course; MC- Mandatory Course

ONE CREDIT COURSES

18EK06	Field Programmable Analog Array for Analog System Design
18EK07	Automotive Software Testing
18EK13	System Engineering for Automotive Applications
18EK14	Electric Vehicles
18EK15	Phasor Measurement Units & Applications
18EK16	Graphical Programming for Real-Time Applications
18EK17	CAD Tools for VLSI Design Automation
18EK18	Digital Design with Verilog HDL
18EK19	Automotive Electrical System