

13. Courses of Study and Scheme of Assessment

ME APPLIED ELECTRONICS

(2015 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									
15EA01	Systems Engineering Mathematics	2	2	-	3	50	50	100	FC
15EA02	Fundamentals of Linear Systems and Signal Processing	3	-	-	3	50	50	100	FC
15EA03	Microcontrollers and Applications	3	-	-	3	50	50	100	PC
15EA04	Digital System Design and Testing	3	-	-	3	50	50	100	PC
15EA05	VLSI Design	3	-	-	3	50	50	100	PC
15EA51	Circuits and Systems Simulation Laboratory	-	-	4	2	100	-	100	PC
15EA61	Industry Visit and Technical Seminar	-	-	4	2	100	-	100	EEC
Total 24 hrs		14	2	8	19				
II SEMESTER									
15EA06	Analog VLSI Design	3	-	-	3	50	50	100	PC
15EA07	Object Computing and Data Structures	3	2	-	4	50	50	100	PC
15EA08	Computer Architecture and Parallel Processing	3	-	-	3	50	50	100	PC
15EA09	Advanced Digital Signal Processing	3	-	-	3	50	50	100	PC
15EA10	Embedded System Design	3	-	-	3	50	50	100	PC
15EA__	Elective 1	3	-	2	4	50	50	100	PE
15EA52	Applied Electronics Laboratory	-	-	4	2	100	-	100	PC
Total 26 hrs		18	2	6	22				
III SEMESTER									
15EA__	Elective 2	3	-	-	3	50	50	100	PE
15EA__	Elective 3	3	-	-	3	50	50	100	PE
15EA__	Elective 4	3	-	-	3	50	50	100	PE
15EA__	Elective 5	3	-	-	3	50	50	100	PE
15EA__	Elective 6	3	-	-	3	50	50	100	PE
15EA53	Electronic System Design Laboratory	-	-	4	2	100	-	100	PC
15EA71	Project Work I	-	-	6	3	100	-	100	EEC
Total 25 hrs		15	-	10	20				
IV SEMESTER									
15EA72	Project Work II	-	-	28	14	50	50	100	EEC
ELECTIVE I WITH LAB COMPONENT (One to be opted)									
15EA21	Virtual Instrumentation Systems	3	-	2	4	50	50	100	PE
15EA22	RF Circuits and Measurements	3	-	2	4	50	50	100	PE
15EA23	Industrial Drives and Controls	3	-	2	4	50	50	100	PE
ELECTIVE THEORY COURSES(Five to be opted)									
15EA24	Algorithm for VLSI Design Automation	3	-	-	3	50	50	100	PE
15EA25	VLSI Testing and Testability	3	-	-	3	50	50	100	PE
15EA26	Mixed Signal VLSI Design	3	-	-	3	50	50	100	PE
15EA27	Hardware Design Verification Techniques	3	-	-	3	50	50	100	PE
15EA28	System on Chip	3	-	-	3	50	50	100	PE
15EA29	ASIC Design	3	-	-	3	50	50	100	PE
15EA30	Operating Systems	3	-	-	3	50	50	100	PE
15EA31	Real-Time Embedded Systems	3	-	-	3	50	50	100	PE
15EA32	Linux Architecture	3	-	-	3	50	50	100	PE
15EA33	Advanced Microprocessors	3	-	-	3	50	50	100	PE
15EA34	Electronic Product Design	3	-	-	3	50	50	100	PE
15EA35	Digital Image Processing	3	-	-	3	50	50	100	PE
15EA36	Digital Video Processing	3	-	-	3	50	50	100	PE
15EA37	Wavelets and Applications	3	-	-	3	50	50	100	PE
15EA38	Bio-medical Signal Processing	3	-	-	3	50	50	100	PE
15EA39	Medical Instrumentation Systems	3	-	-	3	50	50	100	PE
15EA40	Internet Working and its Applications	3	-	-	3	50	50	100	PE
15EA41	Soft Computing	3	-	-	3	50	50	100	PE
15AE42	Internet of Things	3	-	-	3	50	50	100	PE

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

**CAT – Category; FC – Foundation Course; PC – Professional Core; PE - Professional Elective
EEC – Employability Enhancement Course**

ONE CREDIT COURSES

15EK01	CAD Tools for VLSI Design Automation
15EK02	Digital Design with Verilog HDL
15EK08	Automotive Electrical System
15EK11	Field Programmable Analog Array for Analog System Design
15EK12	Automotive Software Testing

SCIENCE ELECTIVES

15ID01	Micro Electro Mechanical Systems (MEMS)
15ID02	Sensors for Engineering Applications
15ID03	Laser Processing of Materials
15ID04	Plasma Technology
15ID05	Nanosensor and its Applications
15ID06	Nano Magnetism and Spintronics
15ID07	Corrosion Science and Engineering
15ID08	Instrumental Methods of Chemical Analysis
15ID09	Polymer Science and Technology
15ID10	Nanomaterials and Nanotechnology
15ID11	Thin Film Technology

HUMANITIES AND LANGUAGES ONE CREDIT COURSES

15OK01	Research Writing in Engineering Sciences
15OK02	Indian Ethos and Human Values
15OK03	Personality Development
15OK04	Financial Accounting and Cost Accounting