

**13. Courses of Study and Scheme of Assessment  
ME APPLIED ELECTRONICS**

**(2021 REGULATIONS)  
(Minimum No. of credits to be earned: 70\*)**

Course Code	Course Title	Periods / Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
<b>I SEMESTER</b>									
21EA01	Mathematics of Systems Engineering	2	1	0	3	50	50	100	PC
21EA02	Advanced Digital System Design	3	1	0	4	50	50	100	PC
21EA03	Embedded System Design	3	0	0	3	50	50	100	PC
21EA04	Advanced Digital Signal Processing	3	1	0	4	50	50	100	PC
21EA05	System Theory	3	1	0	4	50	50	100	PC
21EA06	Research Methodology and IPR	2	0	0	2	50	50	100	RMC
21EA72	Audit Course I	2	0	0	Grade	100	0	100	MC
21EA51	Object Computing and Data Structures Laboratory	0	0	4	2	50	50	100	PC
21EA52	Embedded System Design Laboratory	0	0	4	2	50	50	100	PC
<b>Total 30 Periods</b>		<b>18</b>	<b>4</b>	<b>8</b>	<b>24</b>	<b>500</b>	<b>400</b>	<b>900</b>	
<b>II SEMESTER</b>									
21EA07	VLSI Design and Testing	3	0	0	3	50	50	100	PC
21EA08	Internet of Things	3	1	0	4	50	50	100	PC
21EA__	Professional Elective I	3	0	0	3	50	50	100	PE
21EA__	Professional Elective II	3	0	0	3	50	50	100	PE
21EA__	Professional Elective III	3	0	0	3	50	50	100	PE
21EA82	Audit Course II	2	0	0	Grade	100	0	100	MC
21EA61	Modelling and Simulation Laboratory	0	0	4	2	50	50	100	PC
21EA62	Electronic System Design Laboratory	0	0	4	2	50	50	100	PC
21EA63	Industrial Visit and Technical Seminar	0	0	4	2	100	0	100	EEC
<b>Total 30 Periods</b>		<b>17</b>	<b>1</b>	<b>12</b>	<b>22</b>	<b>550</b>	<b>350</b>	<b>900</b>	
<b>III SEMESTER</b>									
21EA__	Professional Elective IV	3	0	0	3	50	50	100	PE
21EA__	Open Elective	3	0	0	3	50	50	100	OE
21EA71	Project Work I	0	0	12	6	100	0	100	EEC
<b>Total 18 Periods</b>		<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>200</b>	<b>100</b>	<b>300</b>	
<b>IV SEMESTER</b>									
21EA81	Project Work II	<b>0</b>	<b>0</b>	<b>24</b>	<b>12</b>	50	50	100	EEC
<b>PROFESSIONAL ELECTIVE THEORY COURSES (Four to be opted)</b>									
21EA21	Algorithms for VLSI Design Automation	3	0	0	3	50	50	100	PE
21EA22	Analog VLSI Design	3	0	0	3	50	50	100	PE
21EA23	Hardware Design Verification Techniques	3	0	0	3	50	50	100	PE

21EA24	ASIC Design	3	0	0	3	50	50	100	PE
21EA25	System on Chip	3	0	0	3	50	50	100	PE
21EA26	Computer Architecture and Parallel Processing	3	0	0	3	50	50	100	PE
21EA27	Internet Working and its Applications	3	0	0	3	50	50	100	PE
21EA28	Real-Time Operating Systems	3	0	0	3	50	50	100	PE
21EA29	Linux Architecture and Device Drivers	3	0	0	3	50	50	100	PE
21EA30	Virtual Instrumentation Systems	3	0	0	3	50	50	100	PE
21EA31	Artificial Intelligence and Machine learning	3	0	0	3	50	50	100	PE
21EA32	Optimisation Techniques	3	0	0	3	50	50	100	PE
21EA33	Wireless Sensor Networks	3	0	0	3	50	50	100	PE
21EA34	Bio Signal Processing	3	0	0	3	50	50	100	PE
21EA35	Wavelets and Applications	3	0	0	3	50	50	100	PE
21EA36	Electronic Product Design	3	0	0	3	50	50	100	PE
21EA37	Digital Image Processing	3	0	0	3	50	50	100	PE
21EA38	Soft Computing	3	0	0	3	50	50	100	PE
21EA39	Industrial Drives for Automation	3	0	0	3	50	50	100	PE
21EA40	Python Programming	3	0	0	3	50	50	100	PE
21EA41	Automotive Embedded Systems	3	0	0	3	50	50	100	PE
21EA42	Machine Vision	3	0	0	3	50	50	100	PE
21EA43	Digital Control Engineering	3	0	0	3	50	50	100	PE
21EA44	Robotics and its Applications	3	0	0	3	50	50	100	PE
21EA45	Sensors, Actuators and Interface Electronics	3	0	0	3	50	50	100	PE
21EA46	Electromagnetic Interference and Compatibility	3	0	0	3	50	50	100	PE
<b>OPEN ELECTIVE THEORY COURSES (One to be opted)</b>									
21EA91	Business Analytics	3	0	0	3	50	50	100	OE
21EA92	Electronic Waste Management	3	0	0	3	50	50	100	OE
21EA93	Industrial Safety and Standards	3	0	0	3	50	50	100	OE
21EA94	Innovation and Product Development	3	0	0	3	50	50	100	OE

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

**CAT – Category; PC – Professional Core; PE - Professional Elective; EEC – Employability Enhancement Course; MC - Mandatory Course; RMC - Research Methodology Course; OE – Open Elective; Grade – Completed / Not Completed**