

**13. Courses of Study and Scheme of Assessment
ME POWER ELECTRONICS AND DRIVES**

**(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	
III SEMESTER									
21ED__	Professional Elective – IV	3	-	-	3	50	50	100	PE
21ED__	Open Elective	3	-	-	3	50	50	100	OE
21ED71	Project Work I	-	-	12	6	100	-	100	EEC
Total 18 periods		6	0	12	12	200	100	300	
IV SEMESTER									
21ED81	Project Work II	-	-	24	12	50	50	100	EEC
Total 24 periods		0	0	24	12	50	50	100	
PROFESSIONAL ELECTIVE THEORY COURSES (Four to be opted)									
21ED21	Power Electronics in Renewable Energy Systems	3	-	-	3	50	50	100	PE
21ED22	Industrial Approach to Power Converter Design	3	-	-	3	50	50	100	PE
21ED23	Internet of Things	3	-	-	3	50	50	100	PE
21ED24	Totally Integrated Automation	3	-	-	3	50	50	100	PE
21ED25	Special Machines and Controllers	3	-	-	3	50	50	100	PE
21ED26	Digital Controller for Power Electronics	3	-	-	3	50	50	100	PE
21ED27	Advanced Control of Electric Drives	3	-	-	3	50	50	100	PE
21ED28	Soft Computing Techniques for Renewable Energy Systems	3	-	-	3	50	50	100	PE
21ED29	Flexible AC Transmission system	3	-	-	3	50	50	100	PE
21ED30	Power Quality Management	3	-	-	3	50	50	100	PE
21ED31	Advanced Topics in Power Electronics	3	-	-	3	50	50	100	PE
21ED32	HVDC Transmission	3	-	-	3	50	50	100	PE
21ED33	Design of Solar Photovoltaic systems	3	-	-	3	50	50	100	PE
21ED34	Optimization Techniques	3	-	-	3	50	50	100	PE
21ED35	Pulse Width Modulated Power Electronic Converters	3	-	-	3	50	50	100	PE
21ED36	Smart Grid Technologies	3	-	-	3	50	50	100	PE
21ED37	Distributed Generation and Micro grids	3	-	-	3	50	50	100	PE
21ED38	Electric Vehicles	3	-	-	3	50	50	100	PE
21ED39	Power Converters and Charging Technologies for Electric Vehicles	3	-	-	3	50	50	100	PE
21ED40	Integrated Circuits and Devices for Power Electronics	3	-	-	3	50	50	100	PE
21ED41	Industrial Drives for Automation	3	-	-	3	50	50	100	PE
OPEN ELECTIVE THEORY COURSES (One to be opted)									
21ED91	Business Analytics	3	-	-	3	50	50	100	OE
21ED92	Electronic Waste Management	3	-	-	3	50	50	100	OE

21ED93	Industrial Safety and Standards	3	-	-	3	50	50	100	OE
21ED94	Innovation and Product Development	3	-	-	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; RMC- Research Methodology and IPR; EEC – Employability Enhancement Course; MC- Mandatory Course; Grade - Completed / Not Completed; OE – Open Elective