PROPOSED COURSE STRUCTURE AND DETAILED SYLLABUS

for

M.Tech.

in

Power Electronics

With Effective from the academic year

2021-2022

M.Tech. COURSE STRUCTURE

Power Electronics Course Structure

I SEMESTER

S.No	Course Code	Name of the Subject	L	P	C
1	21EEPE101	Modelling and Analysis of Electrical Machines	4	-	3
2	21EEPE102	Analysis of Power Electronic Converters	4	-	3
3	21EEPE103	Power Semiconductor Devices and Modelling	4	-	3
4	21EEPE104	Power Electronic Control of DC Drives	4	-	3
5	**Elective:1**		4	-	3
	21EEPE105A	Special Electrical Machines			
	21EEPE105B	HVDC Transmission			
6	**Elective:2**		4	-	3
	21EEPE106A	Hybrid and Electrical Vehicles			
	21EEPE106B	Static VAR Controllers and Harmonic Filtering			
7	21EEPE151	Systems Simulation Laboratory	-	3	1.5
		Total Credits			**19.5**

II SEMESTER

S.No	Course Code	Name of the Subject	L	P	C
1	21EEPE201	Power Electronic Control of AC Drives	4	-	3
2	21EEPE202	Power Converters for Renewable Energy Systems	4	-	3
3	21EEPE203	Custom Power Devices	4	-	3
4	**Elective:3**		4	-	3
	21EEPE204A	Artificial Intelligence Techniques			
	21EEPE204B	Digital Controllers			
5	**Elective:4**		4	-	3
	21EEPE205A	Modelling & Simulation of Power Electronics and Drive Systems			
	21EEPE205B	Smart Grid Technologies			
6	**Elective:5**		4	-	3
	21EEPE206A	Switch Mode and Resonant Converters			
	21EEPE206B	Optimization Techniques			
7	21EEPE251	Electrical Drives Laboratory	-	3	1.5
8	21EEPE252	Term Paper with seminar	-	-	3
		Total Credits			**22.5**

III SEMESTER

S.No	Course Code	Name of the Subject	L	P	C
1	21EEPE301	**Self-Learning Course:** Design of Photovoltaic Systems	-	-	3
2	21EEPE351	Project Work Phase – I	-	-	5
3	21EEPE352	Internship with seminar			4
Total Credits					**12**

IV SEMESTER

S.No	Course Code	Name of the Subject	L	P	C
1	21EEPE451	Project Phase-II	-	-	10
				Total Credits	**10**

Total Credits: 19.5+22.5+12+10=64