

## SPECIALIZATION IN POWER ELECTRONICS & DRIVES

### 1<sup>st</sup> Semester

Sl. No.	Subject Code	Subject				Total	Credit
		<b>Theory</b>	L	T	P		
1	EX60001	University Level Subject Core (Research Methods and Documentation)	3	0	0	3	3
2	EE60109	School Level Common Mathematics Course( <b>Numerical Optimization Techniques</b> )	3	0	0	3	3
3	EE61101	Power Conversion Techniques	3	1	0	4	4
4	EE60101	Electrical Drives and Control	3	0	0	3	3
5	EE60103	Control Techniques in Power Electronics	3	0	0	3	3
6		Dept. Elective-I	3	0	0	3	3
<b>Total Theory</b>						19	19
<b>Practical</b>							
1	EE69101	Power Electronics Converter and Drives Lab	0	0	2	2	1
2	EE69103	Power Electronics Modeling and Control Laboratory	0	0	2	2	1
<b>Total Practical</b>			4			4	2
<b>Total Semester Credit</b>						23	21

### 2<sup>nd</sup> Semester

Sl. No.	Subject Code	Subject				Total	Credit
		<b>Theory</b>	L	T	P		
1	EE60110	School Level Common Core Course( <b>Control Theory And Design</b> )	3	0	0	3	3
2	EE60102	Design of Switch Mode Power Converters	3	0	0	3	3
3	EE60104	Vector Control of Electric Drives	3	0	0	3	3
4		Dept. Elective-II	3	0	0	3	3
5		Dept. Elective-III	3	0	0	3	3
<b>Total Theory</b>						15	15
<b>Practical</b>							
1	EE69102	Industrial Automation Laboratory	0	0	2	2	1
<b>Total Practical</b>						2	1
<b>Sessional</b>							
1	EE68102	Modeling, Analysis and Design of Electrical System	0	0	2	2	1
2	EE68104	Comprehensive Viva-Voce	0	0	0		2
<b>Total Sessional</b>						2	3
<b>Total Semester Credit</b>						19	19

### 3<sup>rd</sup> Semester

			L	T	P	Credit
1		Open Elective/Industry Elective	3	0	0	3
2	EE68101	Seminar	0	0	2	1
3	EE67101	Thesis Part-I				16
		<b>Total Semester Credit</b>				20

### 4<sup>th</sup> Semester

1	EE67102	Thesis Part-II		-		20
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### Electives for Specialization in POWER ELECTRONICS & DRIVES

#### Elective-I

Subject Code	Subject	Credit
EE60201	Renewable Power Generation Technology	3
EE60111	Flexible AC Transmission System	3
EE60113	Power Electronics for Utility Interface	3
EE60115	Discrete and Digital Signal Processing	3

#### Elective-II

Subject Code	Subject	Credit
EE60112	Analysis and Design of Power Converter	3
EE60302	Computer Analysis in Power System	3
EE60202	Power Quality Issues and Mitigation	3
EE60114	Intelligent Techniques	3

#### Elective-III

Subject Code	Subject	Credit
EE60116	Electric Vehicle Technology	3
EE60320	Harmonics Elimination Techniques in Electrical System	3
EE60204	Energy Management and Audit	3
EE60120	Advanced DC-AC Conversion System	3