

Credit Distribution (M.Tech in Electrical Engineering)

Semester	Credit
1 st Semester	21
2 st Semester	19
3 st Semester	20
4 st Semester	20
Total Credit	80

A. University Level Subject Core

Sl. No.	Course Code	Subject Name	Credit
1	EX60001	Research Methods and Documentation	3

B. Departmental level Common Subject across all Specialization in School of Electrical Engineering

1st semester

Sl. No.	Course Code	Subject Name	Credit
1	EE60109	School Level Common Mathematics Course (Numerical Optimization Techniques)	3

2nd Semester

Sl. No.	Course Code	Subject Name	Credit
2	EE60110	School Level Common Core Course (Control Theory and Design)	3

SPECIALIZATION IN POWER ELECTRONICS & DRIVES

1st semester

Sr. No.	Subject Code	Subject				Total	Credit
		Theory	L	T	P		
1	EX60001	University Level Subject Core	3	0	0	3	3
2	EE60109	School Level Common Mathematics Course	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
Total Theory						19	19
		Practical					
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
Total Practical						4	2
Total Semester Credit						23	21

2nd Semester

Sr. No.	Subject Code	Subject				Total	Credit
		Theory	L	T	P		
1	EE60110	School Level Common Core Course	3	0	0	3	3
2	EE60102	Design of Switch Mode Power Conversion	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
Total Theory						15	15
		Practical					
1	EE69102	Industrial Automation Laboratory	0	0	2	2	1
		Total Practical				2	1
		Sessional					
1	EE68102	Modeling, Analysis and Design of Electrical System	0	0	2	2	1
2	EE68104	Comprehensive Viva-Voce	0	0	0		2
Total Sessional						2	3
Total Semester Credit						19	19

3rd 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
		Total Semester Credit				20

4th Semester

1	EE67102	Thesis Part-II	-			20
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Electives for Specialization in POWER ELECTRONICS & DRIVES**Elective – I**

Corse 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

Corse 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

Corse 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

SPECIALIZATION IN POWER AND ENERGY SYSTEM

1st semester

Sr. No.	Subject Code	Subject				Total	Credit
		Theory	L	T	P		
1	EX60001	University Level Subject Core	3	0	0	3	3
2	EE60109	School Level Common Mathematics Course	3	0	0	3	3
3	EE61101	Power Conversion Techniques	3	1	0	4	4
4	EE60201	Renewable Power Generation Technology	3	0	0	3	3
5	EE60203	Modeling and Analysis of Energy System	3	0	0	3	3
6		Dept. Elective-I	3	0	0	3	3
Total Theory						19	19
		Practical					
1	EE69201	Renewable Energy Laboratory	0	0	2	2	1
2	EE69203	Energy System Modeling and Control Laboratory	0	0	2	2	1
Total Practical						4	2
Total Semester Credit						23	21

2nd Semester

Sr. No.	Subject Code	Subject				Total	Credit
		Theory	L	T	P		
1	EE60110	School Level Common Core Course	3	0	0	3	3
2	EE60202	Power Quality Issues and Mitigation	3	0	0	3	3
3	EE60204	Energy Management and Audit	3	0	0	3	3
4		Dept. Elective-II	3	0	0	3	3
5		Dept. Elective-III	3	0	0	3	3
Total Theory						15	15
		Practical					
1	EE69102	Industrial Automation Laboratory	0	0	2	2	1
Total Practical						2	1
		Sessional					
1	EE68102	Modeling, Analysis and Design of Electrical system	0	0	2	2	1
2	EE68204	Comprehensive Viva-Voce	0	0	0	0	2
						2	3
Total Practical and Sessional						4	4
Total Semester Credit						19	19

3rd Semester

			L	T	P	Credit
1		Open Elective / Industry Elective	3	0	0	3
2	EE68201	Seminar	0	0	2	1
3	EE67201	Thesis Part-I	-			16
		Total Semester Credit				20

4th Semester

1	EE67202	Thesis Part-II	-			20
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Electives for Specialization in POWER AND ENERGY SYSTEM**Elective – I**

Corse Code	Subject	Credit
EE60211	Control Techniques in Power Electronics	3
EE60111	Flexible AC Transmission System	3
EE60113	Power Electronics for Utility Interface	3
EE60213	Reactive power control and Management	3

Elective-II

Corse Code	Subject	Credit
EE60302	Computer Analysis in Power System	3
EE60114	Intelligent Techniques	3
EE60312	Distributed Generation	3
EE60112	Analysis and Design of Power Converters	3

Elective-III

Corse Code	Subject	Credit
EE60304	Digital Protection in Power System	3
EE60212	Solar Power Engineering	3
EE60214	Wind Power Engineering	3
EE60318	Restructuring of Power System	3

SPECIALIZATION IN POWER SYSTEM ENGINEERING

1st semester

Sr. No.	Subject Code	Subject				Total	Credit
		Theory	L	T	P		
1	EX60001	University Level Subject Core	3	0	0	3	3
2	EE60109	School Level Common Mathematics Course	3	0	0	3	3
3	EE61301	Power System Analysis and Design	3	0	0	4	4
4	EE60301	Renewable Power Generation Technology	3	0	0	3	3
5	EE60303	Power System Stability and Control	3	0	0	3	3
6		Dept. Elective-I	3	0	0	3	3
Total Theory						19	19
Practical							
1	EE69301	Advance Power System Laboratory	0	0	2	2	1
2	EE69303	Power System Modeling and Control Laboratory	0	0	2	2	1
Total Practical						4	2
Total Semester Credit						23	21

2nd Semester

Sr. No.	Subject Code	Subject				Total	Credit
		Theory	L	T	P		
1	EE60110	School Level Common Core Course	3	0	0	3	3
2	EE60302	Computer Analysis in Power System	3	0	0	3	3
3	EE60304	Digital Protection in Power System	3	0	0	3	3
4		Dept. Elective-II	3	0	0	3	3
5		Dept. Elective-III	3	0	0	3	3
Total Theory						15	15
Practical							
1	EE69102	Industrial Automation Laboratory	0	0	2	2	1
Total Practical						2	1
Sessional							
1	EE68102	Modeling, Analysis and Design of Electrical System	0	0	2	2	1
2	EE68304	Comprehensive Viva-Voce	0	0	0	0	2
Total Sessional						2	3
Total Semester Credit						19	19

3rd Semester

			L	T	P	Credit
1		Open Elective / Industry Elective	3	0	0	3
2	EE68301	Seminar	0	0	2	1
3	EE67301	Thesis Part-I				16
		Total Semester Credit				20

4th Semester

1	EE67302	Thesis Part-II	-	20
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Electives for Specialization in POWER SYSTEM ENGINEERING**Elective – I**

Course Code	Subject	Credit
EE60311	Power System Transients	3
EE60111	Flexible AC Transmission System	3
EE60113	Power Electronics for Utility Interface	3
EE60213	Reactive power control and Management	3

Elective-II

Course Code	Subject	Credit
EE60202	Power Quality Issues and Mitigation	3
EE60114	Intelligent Techniques	3
EE60312	Distributed Generation	3
EE60204	Energy Management and Audit	3

Elective-III

Course Code	Subject	Credit
EE60314	High Voltage DC Transmission System	3
EE60316	Smart Grid Technology	3
EE60318	Restructuring of Power System	3
EE60320	Harmonics Elimination Techniques in Electrical System	3