

**DEPARTMENT OF ELECTRICAL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: **27** **M.Tech. (Power System Engineering)**
 Department: **EE** **Department of Electrical Engineering**
 Year: **I**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Semester- I (Autumn)														
1.	EEN-560	Computer Aided Power System Analysis	PCC	4	3	0	2	3	-	15	25	20	40	-
2.	EEN-561	Power System Operation and Control	PCC	4	3	1	0	3	-	25	-	25	50	-
3.	EEN-562	Distribution System Analysis and Operation	PCC	4	3	1	0	3	-	25	-	25	50	-
4.	EEN-563	EHV AC Transmission Systems	PCC	4	3	1	0	3	-	25	-	25	50	-
5.	EEN-xxx	Program Elective Course-I	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		20	12	3	2	-	-	-	-	-	-	-
Semester-II (Spring)														
1.	EEN-564	HVDC Transmission Systems	PCC	4	3	1	0	3	-	25	-	25	50	-
2.	EEN-700	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
3.	EEN-xxx	Program Elective Course-II	PEC	4	-	-	-	-	-	-	-	-	-	-
4.	EEN-xxx	Program Elective Course-III	PEC	4	-	-	-	-	-	-	-	-	-	-
5.	EEN-xxx	Program Elective Course-IV	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		18	3	1	0	-	-	-	-	-	-	-

**DEPARTMENT OF ELECTRICAL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 27 M.Tech. (Power System Engineering)
 Department: EE Department of Electrical Engineering
 Year: II

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Semester- I (Autumn)														
1.	EEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.														
Semester-II (Spring)														
1.	EEN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

Summary				
Semester	1	2	3	4
Semester-wise Total Credits	20	18	12	18
Total Credits	68			

Program Elective Courses (PSE)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	EEN-660	High Voltage Technique	PEC	4	3	1	0	3	-	25	-	25	50	-
2.	EEN-661	Power System Planning	PEC	4	3	1	0	3	-	25	-	25	50	-
3.	EEN-662	Power System Harmonics	PEC	4	3	1	0	3	-	25	-	25	50	-
4.	EEN-663	Flexible AC Transmission Systems	PEC	4	3	1	0	3	-	25	-	25	50	-
5.	EEN-664	Wind Energy	PEC	4	3	1	0	3	-	25	-	25	50	-
6.	EEN-665	Relaying and Switchgear	PEC	4	3	1	0	3	-	25	-	25	50	-
7.	EEN-666	Distribution System Automation	PEC	4	3	1	0	3	-	25	-	25	50	-
8.	EEN-667	Power System Reliability	PEC	4	3	1	0	3	-	25	-	25	50	-
9.	EEN-668	Digital Protection of Power Systems	PEC	4	3	0	2	3	-	15	25	20	40	-
10.	EEN-669	Power System Dynamics	PEC	4	3	1	0	3	-	25	-	25	50	-
11.	EEN-670	Substation Automation	PEC	4	3	1	0	3	-	25	-	25	50	-
12.	EEN-671	Power System Deregulation	PEC	4	3	1	0	3	-	25	-	25	50	-
13.	EEN-521	Digital Signal and Image Processing	PEC	4	3	0	2	3	-	15	25	20	40	-
14.	EEN-540	Advanced Power Electronics	PCC	4	3	1	2/2	3	-	20	20	20	40	-
15.	EEN-543	FACTS Devices	PEC	4	3	1	0	3	-	25	-	25	50	-
16.	EEN-651	Power Quality Improvement Techniques	PEC	4	3	0	2	3	-	15	25	20	40	-
17.	EEN-580	Advanced Linear Control Systems	PEC	4	3	1	2/2	3	-	20	20	20	40	-
18.	EEN-583	Non Linear and Robust Control	PEC	4	3	1	0	3	-	25	-	25	50	-
19.	EEN-681	Wide Area System Monitoring Control	PEC	4	3	1	0	3	-	25	-	25	50	-