

Department of Electrical Engineering

Scheme of M. Tech. in Integrated Power System under Part Time Category (2025 Admitted Batch Onwards)

First Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
EE PS 1101	Computer Aided Power System Analysis (CAPSA)	3	-	-	3
EE PS 1102	Distribution Automation	3	-	-	3
EE PS 1151-1153	Departmental Elective-1/NPTEL Course 1	3	-	-	3
EE PS 1104	Lab-I: CAPSA Lab	-		2	1
EE PS 1106	Seminar-I	---	---	2	1
Total Hours:13 Cumulative Total Credits:11		Total Semester Credits			11

Second Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
EE PS 1201	Digital Protection of Power System	3	---	---	3
EE PS 1202	Power System Stability and Control	3	-	-	3
EE PS 1203	Lab-III: Advance Power System	---	---	2	1
EE PS 1205	Seminar-II	-		2	1
Total Hours:10 Cumulative Total Credits:19		Total Semester Credits			8

Third Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
EE PS 1103	Microgrid Analysis	3	-	-	3
EE PS 1161-1163	Departmental Elective-2/NPTEL Course 2	3	-	-	3
HS 1101	Communication Skill (Audit Course)	2	---	---	2
EE PS 1105	Lab-II: Power System Protection Lab	---	---	2	1
EE PS 1107	MinorProject-1(Self Learning)	---	---	4	2
TotalHours:14 Cumulative Total Credits: 28		Total Semester Credits			9
*HS 1101 Communication Skills 02 Credits (Not Counted in SGPA/CGPA calculations)					

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Fourth Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
EE PS 1251-1253	Departmental Elective-3/NPTEL Course 3	3	-	-	3
EE PS 1261-1263	Departmental Elective-4/NPTEL Course 4	3	-	-	3
	Open Elective	3	-	-	3
EE PS 1204	Lab-IV: Distribution Automation	---	---	2	1
EE PS 1206	Minor Project-2 (Self Learning)	-	-	4	2
Total Hours:15 Cumulative Total Credits:40		Total Semester Credits			12

Fifth Semester:

Subject Code	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
EE PS 2101	Dissertation Phase-I	-	-	40	20
Total Hours:40 Cumulative Total Credits:60		Total Semester Credits			20

Sixth Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
EE PS 2201	Dissertation Phase-II	-	-	40	20
Total Hours: 40 Cumulative Total Credits: 80		Total Semester Credits			20
Total Credits I,II,III, IV, V, VI Semester					80

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S. No.	Departmental Elective Groups	
1		
1.	EE PS 1151	Cyber Security of Power System
2.	EE PS 1152	Power System Economics
3.	EE PS 1153	HVDC Transmission
2		
4.	EE PS 1161	Reactive Power Compensation& FACTS
5.	EE PS 1162	AI Applications to Power Systems
6.	EE PS 1163	Renewable Energy Technologies
3		
7.	EE PS 1251	Optimization in Renewable Energy Systems
8.	EE PS 1252	Power System Transients
9.	EE PS 1253	Power Quality
4		
10.	EE PS 1261	Advance Control System
11.	EE PS 1262	High Voltage Engineering
12.	EE PS 1263	Research Methodology

S. No.	List of Open Electives C	
1.	ARPP - 581	Introduction to Urban Planning
2.	BSEP – 581	Bioprocess Engineering
3.	BSEP – 582	Biophysics Tools and Techniques
4.	CHEP – 581	Analytical Techniques
5.	CHEP – 582	Green Technology & Processes

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6.	CEP – 581	Solid Waste Management
7.	CEP – 582	Basic Concept of GIS
8.	CEP – 583	Road Safety
9.	CSEP – 581	Machine Learning
10.	CSEP – 582	Advanced Data Structures and Algorithms
11.	PHYP – 581	Nanotechnology and Nanoscience
12.	ECEP – 581	Introduction to Fuzzy Logic
13.	ECEP – 582	Neural Networks and its Applications
14.	ECP - 581	Energy Resource Technologies
15.	HUMP – 581	Intellectual Property Rights for Engineers
16.	HUMP – 582	Applied Psychology: Human Centered Design and Engineering
17.	MTHP – 581	Advanced Operations Research
18.	MTHP – 582	Computing Technologies
19.	MEP – 581	Value Engineering
20.	MEP – 582	Design Thinking
21.	MEP - 583	Mechatronics and NDT in Engineering
22.	MMEP – 581	Advanced Instrumentation Methods for Material Analysis
23.	MMEP – 582	Smart Materials and their Application
24.	MBAP - 581	Engineering Startup Management