

M Tech in Power System

SCHEME OF STUDY (wef July 2021)

First Semester:

Course No.	Subjects	Scheme of studies period per week			Total Credits
		L	T	P	
PS 511	Soft Computing Techniques in Power System	3	-	-	3
PS 512	Advanced Power System Analysis	3	-	-	3
PS 513	Advanced Power System Protection	3	-	-	3
PS 514	Reactive Power Compensation	3	-	-	3
	Elective-1 (A)	3	-	-	3
	Elective-2 (B)	3	-	-	3
HUM 511	Communication Skills	2	-	-	2
PS 515	Soft Computing Lab.	-	-	2	1
PS 516	Seminar-1	-	-	2	1
Total Hours: 24 Total Credits: 22		Total Semester Credits			22

Second Semester:

Course No.	Subjects	Scheme of studies period per week			Total Credits
		L	T	P	
PS 521	Modern Control System	3	-	-	3
PS 522	Modern trends in power system operations	3	-	-	3
PS 523	Power System Stability	3	-	-	3
	Elective-3 (A)	3	-	-	3
	Elective-4 (A)	3	-	-	3
	Elective-5 (C)	3	-	-	3
MTH 524	Research Methodology	1	1	-	2
PS 525	Advanced Power System Lab	-	-	2	1
PS 526	Seminar-2	-	-	2	1
Total Hours: 24 Total Credits: 44		Total Semester Credits			22

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Third Semester:

Course No.	Subjects	Scheme of studies period per week			Total Credits
		L	T	P	
PS 611	Dissertation Phase - I	-	-	32	16
Total Hours: 32 Total Credits: 60		Total Semester Credits			16

Fourth Semester:

Course No.	Subjects	Scheme of studies period per week			Total Credits
		L	T	P	
PS 621	Dissertation Phase - II	-	-	40	20
Total Hours: 40 Total Credits: 80		Total Semester Credits			20

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List of Program Electives A		List of Open Electives C	
PS 551	Computer Applications in Power Systems	ARP - 581	Introduction to Urban Planning
PS 552	Power System Economics	BSE – 581	Bioprocess Engineering
PS 553	Modeling of Power System Components	BSE – 582	Biophysics Tools and Techniques
PS 554	Power System Planning and Management	CHE – 581	Analytical Techniques
PS 555	Smart Grid Technologies	CHE – 582	Green Technology & Processes
PS 556	Power Quality Control Technologies	CE – 581	Solid Waste Management
PS 557	High Voltage Engineering	CE – 582	Basic Concept of GIS
PS 558	Integrated Energy System	CE – 583	Road Safety
PS 559	EHV AC and DC Transmission	CSE – 581	Machine Learning
PS 560	Power System Transients	CSE – 582	Advanced Data Structures and Algorithms
PS 561	Optimization in Renewable Energy System	PHY – 581	Nanotechnology and Nanoscience
PS 562	Economics of Regulation and Restructuring of Energy Industry	ECE – 581	Introduction to Fuzzy Logic
PS 563	Distributed Power Systems	ECE – 582	Neural Networks and its Applications
PS 564	Power System Optimization	EC - 581	Energy Resource Technologies
PS 565	Smart Energy Management Systems	HUM – 581	Intellectual Property Rights for Engineers
PS 566	Wide Area Measurements and their applications	HUM – 582	Applied Psychology: Human Centered Design and Engineering
PS 567	Energy Management Systems and SCADA	MTH – 581	Advanced Operations Research
PS 568	Electrical Vehicular Technology	MTH – 582	Computing Technologies
		ME – 581	Value Engineering
List of Departmental Electives B		ME – 582	Design Thinking
ED 511	Evolutionary Techniques	ME - 583	Mechatronics and NDT in Engineering
ED 512	Power Electronics Convertors	MME – 581	Advanced Instrumentation Methods for Material Analysis
ED 513	Advanced Electrical Drives	MME – 582	Smart Materials and their Application
ED 514	Modeling & Analysis of Electrical Machines	MBA-581	Engineering Startup Management