

M.Tech (Electrical Power Engineering)
Course Structure and Syllabus - Academic Year: 2017 - 2018

I Year - I Semester

Code	Subject	L	T	P	Credits	Marks	
						Int.	Ext.
6X101	Power System Dynamics	3	1	--	3	25	75
6X105	High Voltage DC Transmission	3	1	--	3	25	75
6X118	Reactive Power Compensation & Management	3	1	--	3	25	75
6X104	Computer Methods in Power Systems	3	1	--	3	25	75
	Elective – I	3	1	--	3	25	75
	Elective – II	3	1	--	3	25	75
6X174	Research Methodology	2	--	-	2	25	75
6X175	Power Systems Simulation Lab	--	--	4	2	25	75
6X172	Literature Review and Seminar - I	--	--	3	1	100	--
6X173	Comprehensive Viva-I	-	-	-	1	50	50
Total Credits		20	6	7	24	350	650

Elective – I: Any one subject to be selected

Elective – II: Any one subject to be selected

Code	Subject
6X102	Optimization Techniques
6X106	Distribution Planning & Automation
6X111	Surge Phenomena and Insulation Coordination
6X117	Advanced Control Systems
6X119	Control of Electrical Drives
6P140	Java Programming

Code	Subject
6X108	High Voltage Engineering
6X109	Energy Conversion Systems
6X112	Advanced Power System Operation and Control
6X120	Digital Control Systems
6X121	Smart Electric Grid
6RC17	Database Management Systems

I Year - II Semester

Code	Subject	L	T	P	Credits	Marks	
						Int.	Ext.
6X211	Power System Stability	3	1	--	3	25	75
6X212	Advanced Power System Protection	3	1	--	3	25	75
6X213	Flexible AC Transmission Systems	3	1	--	3	25	75
6X214	Power Quality	3	1	--	3	25	75
	Elective – III	3	1	--	3	25	75
	Open Elective	3	1	--	3	25	75
6X277	Power Systems Lab	--	--	4	2	25	75
6X274	Literature Review and Seminar-II	--	--	3	1	100	--
6X275	Project Seminar – I (Mini Project)	-	-	3	2	100	--
6X276	Comprehensive Viva-II	--	--	--	1	50	50
Total Credits		18	6	7	24	425	575

Elective – III: Any one subject to be selected

Code	Subject
6X215	Soft Computing Techniques
6X216	Restructuring in Electrical Power Systems
6X217	Extra High Voltage AC Transmission
6X222	Real Time Control of Power Systems
6X223	Switched Mode Power Conversion
6P141	Computer Networks

Open Elective: Any one subject to be selected

Code	Subject
6ZC03	Banking Operations, Insurance and Risk Management
6H233	Ethics, Morals, Gender Sensitization, and Yoga
6T216	Embedded and Real time control
6ZC11	Logistics & Supply Chain Management

II Year - I Semester

Code	Subject	L	T	P	Credits	Marks	
						Int.	Ext.
6X378	Project work Review I		--	--	12	100	--
Total Credits		--	--	--	12	100	--

II Year - II Semester

Code	Subject	L	T	P	Credits	Marks	
						Int.	Ext.
6X479	Project Work Review II	-	-	-	12	100	-
6X480	Project Evaluation / Dissertation (Viva-Voce)	--	--	--	24	--	200
Total Credits		--	--	--	36	100	200

L - Lectures; T - Tutorial; P - Practical; C - Credits