





Gautam Buddha University

School of Engineering

Course Structure of 2 Year M.Tech Programme in Power Systems Engineering (2015-17 onwards)

SEMESTER-I					
Sr. No.	Subject Code	Courses	L-T-P	Credits	Course Type
1.	MA406/MA507/MA402	THEORY Operation Research /Optimization Techniques/ Modeling and Simulation	3-1-0	4	EGE-P1
2.	EE571	Power System Analysis and Control	3-0-0	3	C-P1
3.	EE573	Power System Transients	3-0-0	3	C-P2
4.	EE575	Renewable & Non Conventional Energy Sources	3-0-0	3	C-P3
5.		(Elective-I)	3-0-0	3	EDSE-P1
6.		Open Elective PRACTICALS	3-0-0	3	OE-P1
7.	EE591	Power System Lab	0-0-3	2	C-P4
8.	EE597	Seminar	0-0-3	2	SEC1
9.	GP	General Proficiency	-	NC	
		Total		23	
		Total Contact Hours	25		

Open Electives: Courses offered from other school

SEMESTER-II				
Sr. No.	Subject Code	Courses	L-T-P	Credits
		THEORY		
1.	MA406/MA507/MA402	Operation Research /Optimization Techniques/ Modeling and Simulation	3-1-0	4
2.	EE572	Advance Power System Protection	3-0-0	3
3.	EE574	Power System Planning & Reliability	3-0-0	3
4.	EE576	Power System Instrumentation	3-0-0	3
5.		Specialized Elective - I	3-0-0	3
		PRACTICALS		
6.	EE598	Project	0-0-10	5
7.	EE588	Power System Simulation Lab	0-0-3	2
8.	GP	General Proficiency	-	NC
		Total		23
		Total Contact Hours	29	

SEMESTER-III				
Sr. No.	Subject Code	Courses	L-T-P	Credits
		THEORY		
1.	EE671	Power System Dynamics & Control	3-0-0	3
3.	EE673	HVDC & FACTS	3-1-0	4
4.		Specialized Elective-II	3-0-0	3
5.		Specialized Elective-III	3-0-0	3
		PRACTICAL/ PROJECT		
6.	EE697	Distribution Network Lab	0-0-2	1
7.	EE699	Dissertation-I	6**-0-3	8





8.	GP	General Proficiency	NC
		Total	22
		Total Contact Hours	24

** This will not be a usual lecture session, but this is one to one interaction of each student with the concerned faculty member

SEMESTER-IV				
Sr. No.	Subject Code	Courses	L-T-P	Credits
1.	EEP 698	Dissertation-II	----	22
2.		General Proficiency	----	NC
		Total	----	22
		Total Contact Hours	22	

Grand Total Credits of Degree = 90

List of Electives for M.Tech (Power System)

Elective-I

1. EE577: Reliability Analysis & Prediction
2. EE579: Failure Data Organization and Analysis
3. EE581: Restructured Power System
4. EE583: Power Conditioning





3-V1

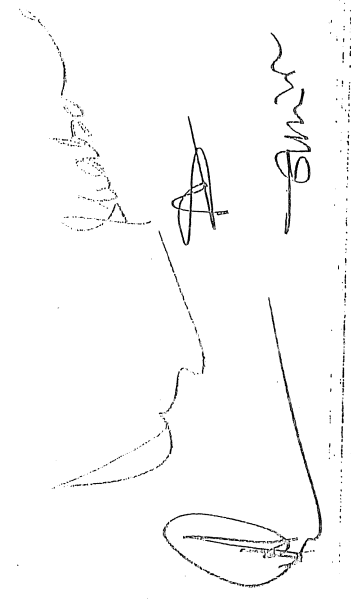
5. EE585: Power Converters & Applications
6. EE587: Project Engineering & Management
7. EE589: Wavelet Methods in Engineering
8. M.Tech. (PED)-I sem. Elective

Specialization Elective-I

1. EE578: Computer Aided Design of Electrical Machines
2. EE580: Reliability Centered Maintenance
3. EE582: Power Sector Economics and Management
4. EE584: EHVAC Transmission
5. EE586: Modeling and Analysis of Electrical Machines
6. M.Tech. (PED)-II sem. Elective

Specialization Elective -II

1. EE675: Computer Applications to Power System Analysis
2. EE677: Control & Operation of Active Distribution Network
3. EE679: Power Quality Analysis and Mitigation
4. EE681: Soft Computing Techniques
5. EE683: Distributed Generation & Microgrids
6. M.Tech. (PED)-III sem. Elective

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Specialization Elective -III

1. EE685: SCADA and Phasor Measurement Unit
2. EE687: Optimal Control Theory and Power System Applications
3. EE689: Demand Side Management
4. EE691: Power System Optimization
5. EE693: Optimization Techniques for Electrical Engg.
6. EE695: Distribution System Analysis & Control
7. M.Tech. (PED)-III sem. Elective

Nomenclature:

1. AEC: Ability Enhancement Courses
 - AEC-C: Ability Enhancement Courses-compulsory
 - SEC: Skill Enhancement Course
2. CC: Core Course
3. Elective Courses
 - E-DSE: Discipline specific elective
 - E-GE: Generic Elective
 - E-DP: Dissertation and Project

