Gautam Buddha University

School of Engineering

Course Structure of 2 Year M.Tech Programme in Power Systems Engineering (2014-15 onwards)

SEMESTER-I				
Sr. No.	Subject Code	Courses	L-T-P	Credits
		THEORY		
1.	MEE 505	Operation Research	3-1-0	4
2.	EEP 501	Power System Analysis and Control	3-0-0	3
3.	EEP 503	Power System Transients	3-0-0	3
4.	EEP 505	Renewable & Non Conventional Energy Sources	3-0-0	3
5.		(Elective-I)	3-0-0	3
		PRACTICALS		
7.	EEP 519/EE477	Power System Lab	0-0-3	2
8.	EEP 521	Seminar	0-0-3	2
9.	GP 501	General Proficiency	-	1
		Total	**13-3-6**	**21**
		Total Contact Hours	22	

SEMESTER-II				
Sr. No.	Subject Code	Courses	L-T-P	Credits
		THEORY		
1.	MA 402	Modeling and Simulation	3-1-0	4
2.	EEP 502	Advance Power System Protection	3-1-0	4
3.	EEP 504	Power System Planning & Reliability	3-0-0	3
4.	EEP 506	Power System Instrumentation	3-0-0	3
5.		Specialized Elective - I	3-0-0	3
		PRACTICALS		
7.	EEP528	Minor Project	0-0-10	5
8.	EEP 530	Power System Simulation Lab	0-0-3	2
9.	GP 502	General Proficiency	-	1
		Total	**13-4-13**	**25**
		Total Contact Hours	30	

SEMESTER-III				
Sr. No.	Subject Code	Courses	L-T-P	Credits
		THEORY		
1.	EEP 601	Power System Dynamics & Control	3-0-0	3
2.	EEP 603	Distribution System Analysis & Control	2-1-0	3
3.	EEP 605	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.	EEP 631	Distribution Network Lab	0-0-2	1
7.	EEP 633	Dissertation (Part-I)	2**-0-3	4
8.	GP 601	General Proficiency	-	1
		Total	**16-2-5**	**22**
		Total Contact Hours	23	

*** 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 612	Dissertation (Part-II)	----	21
2.	GP 602	General Proficiency	----	1
		Total	**-----**	**22**
		Total Contact Hours	23	

Grand Total Credits of Degree = 90

List of Electives for M.Tech (Power System)

Elective-I

1. EEP507: Reliability Analysis & Prediction
2. EEP509: Failure Data Organization and Analysis
3. EEP511: Restructured Power System
4. EEP513: Power Conditioning
5. EEP515: Power Converters & Applications
6. EEP517: Project Engineering & Management

Specialization Elective-I

1. EEP508: Wavelet Methods in Power Systems
2. EEP510: Computer Aided Design of Electrical Machines
3. EEP512: Reliability Centered Maintenance
4. EEP514: Power Sector Economics and Management
5. EEP516: EHVAC Transmission
6. EEP518: Modeling and Analysis of Electrical Machines

Specialization Elective –II

1. EEP607: Probabilistic Risk Assessment
2. EEP609: Computer Applications to Power System Analysis
3. EEP611: Control & Operation of Active Distribution Network
4. EEP613: Power Quality Analysis and Mitigation
5. EEP615: Soft Computing Techniques
6. EEP 617: Distributed Generation & Microgrids

Specialization Elective –III

1. EEP621: SCADA and Phaser Measurement Unit
2. EEP623: Optimal Control Theory
3. EEP625: Demand Side Management
4. EEP627: Power System Optimization
5. EEP 629: Optimization Techniques