GAUTAM BUDDHA UNIVERSITY

Gautam Buddh Nagar -201310

SCHOOL OF ENGINEERING

REVISED COURSE STRUCTURE

(Five Years Integrated Dual Degree Program in Electrical Engineering)

9th Board of Studies Meeting (August 14, 2014)

DEPARTMENT OF ELECTRICAL ENGINEERING

School of Engineering

Gautam Buddha University
Gautam Buddh Nagar – 201310

5 Year Dual Degree Programme (Electrical Engineering)

SEMESTER-I (2013-18 batch onwards)				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	CY101/PH102	Engineering Chemistry/Engineering Physics	3-1-0	4
2	MA101	Mathematics - I	3-1-0	4
3	CE101	Engineering Mechanics	2-1-0	3
4	CS101	Computer Programming - I	2-0-0	2
5	EC101/EE102	Basic Electronics/Electrical Technology	2-0-0	2
6	HU101	English Proficiency	2-0-0	2
7	SS101	Human Values & Buddhist Ethics	2-0-0	2
		PRACTICALS		
8	CY103/PH104	Engineering Chemistry / Engineering Physics Lab	0-0-2	1
9	ME102/ME103	Engg.Workshop / Engg. Graphics	0-0-3	2
10	CS181	Computer Programming Lab-I	0-0-3	2
11	EC181/EE104	Basic Electronics Lab/ Electrical Technology Lab	0-0-2	1
12	GP101	General Proficiency	-	1
		Total	**16-3-10**	**26**
		Total Contact Hours	29	

SEMESTER - II				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	PH102/CY101	Engineering Physics/ Engineering Chemistry	3-1-0	4
2	MA102	Mathematics - II	3-1-0	4
3	CE102	Concepts of Built Environment	2-1-0	3
4	CS102	Computer Programming - II	2-0-0	2
5	EE102/EC101	Electrical Technology/ Basic Electronics	2-0-0	2
6	HU102	Professional Communication	2-0-0	2
7	SS102	History of Science & Technology	2-0-0	2
		PRACTICALS		
8	PH104/CY103	Engineering Chemistry / Engineering Physics Lab	0-0-2	1
9	CE104	Built Environment Lab	0-0-3	2
10	EE104/EC181	Electrical Technology Lab/ Basic Electronics Lab	0-0-2	1
11	ME103/ME102	Engineering Graphics/ Engg.Workshop	0-0-3	2
12	GP102	General Proficiency	-	1
		Total	**16-3-10**	**26**
		Total Contact Hours	29	

SEMESTER-III				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	MA201	Quantitative Techniques	3-1-0	4
2	EE201	Electrical Engineering Materials	2-0-0	2
3	EE203	Network Theory	3-1-0	4
4	EE-221	Electrical Measurement and Measuring Instruments	3-0-0	3
5	EE207	Electrical Machine-I	3-1-0	4
6	CS205	Data Structure and Algorithm	3-0-0	3
		PRACTICALS		
7	EE233	Network Theory Lab	0-0-3	2
8	EE211	Electrical Machine - I Lab	0-0-3	2
9	EE231	Electrical Measurement and Measuring Instru Lab	0-0-2	1
10	GP201	General Proficiency	-	1
		Total	**17-3-8**	**26**
		Total Contact Hour	28	

SEMESTER - IV				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	MA202	Numerical Methods of Analysis	3-1-0	4
2	EE202	Measurement and Instrumentation	2-0-0	2
3	EE204	Electronic Devices & Circuits (EDC)	3-0-0	3
4	EE226	Signal & Systems	3-1-0	4
5	EE208	Generation of Electric Power	3-0-0	3
6	EE210	Electrical Machine -II	3-1-0	4
		PRACTICALS		
7	EE218	Electronic Devices & Circuits (EDC) (Lab in ICT)	0-0-3	2
8	EE214	Electrical Machine - II	0-0-3	2
9	EE216	Measurements and Instrumentation Lab	0-0-2	1
10	GP202	General Proficiency	-	1
		Total	**17-3-8**	**26**
		Total Contact Hour	28	

SEMESTER – V				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	EE301	Transmission and Distribution of Electric Power	3-1-0	4
2	EE303	Electromagnetic Field Theory	3-0-0	3
3	EE305	Control System-I	3-1-0	4
4	EE-307	Digital Electronics	3-0-0	3
5	EE309	Power Electronics	3-0-0	3
6	CE311	Engineering Economics	2-0-0	2
		PRACTICALS		
7	EE313	Control System Lab	0-0-3	2
8	EE317	MATLAB Programming Lab	0-0-3	2
9	EE319	Digital Electronics Lab (In ICT)	0-0-3	2
10	GP301	General Proficiency		1
		Total	**17-2-9**	**26**
		Total Contact Hours	28	

SEMESTER – VI(Batch 2012-17 onwards)				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	EE302	Electric Drives	3-1-0	4
2	EE304	Switchgear and Protection	3-0-0	3
3	EE306	Communication Systems	2-1-0	3
4	EE308	Control System-II	3-1-0	4
5	EE310	Micro Processor & Micro Controller	3-0-0	3
6	CE 318	Disaster Management	2-0-0	2
		PRACTICALS		
7	EE322	Switchgear and Protection Lab	0-0-3	2
8	EE344	Power Electronics & Drives Lab	0-0-3	2
9	EE366	Micro processor & Micro Controller Lab	0-0-3	2
10	GP302	General Proficiency		1
		Total	**16-3-9**	**26**
		Total Contact Hours	28	

SEMESTER – VII (Batch: 2012-17 onwards)				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
1	MEE505/MA402	Operation Research/Modeling and Simulation	3-1-0	4
2	EE401	Digital Signal Processing	2-1-0	3
3	EE403	Power System Analysis and Control	3-1-0	4
4		Elective -I	3-0-0	3
5		Elective– I	3-0-0	3
6		Elective - II	3-0-0	3
		PRACTICALS		
7	EE477	Power System Lab	0-0-3	2
8	EE499	Advance Power Electronics and Drive Lab	0-0-3	2
9	EE455	Seminar on Industrial Training	0-0-2	1
10	GP401	General Proficiency	-	1
		Total	**16-3-8**	**26**
		Total Contact Hours	27	

SEMESTER – VIII (Specialization in M.Tech. Power Systems)

Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
		THEORY		
		Total		**25**
	M.Tech. (Power Systems)-IIrd semester curriculum			

SUMMER SEMESTER (AFTER VIII SEMESTER)				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
1.	EEP400	Summer Project	0-0-20	10
		Total	0-0-20	10
		Total Contact Hours	20	

SEMESTER – IX (Specialization in M.Tech. Power Systems)				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
	M.Tech. (Power Systems)-IIIrd semester curriculum			
		Total		**22**

SEMESTER – X (Specialization in M.Tech. Power Systems)				
Sr. No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
	M.Tech. (Power Systems)-IVth semester curriculum			
		Total		**22**

Grand Total Credits of Dual Degree = 258

List of Electives for Integrated M.Tech (EE)

Elective-I & II

1. EE407: Utilization of Electric Power & SCADA Systems (Credits:3-0-0)
2. EE409: Introduction to MEMS (Credits:3-0-0)
3. EE411: Embedded System (Credits:3-0-0)
4. EE413: Failure Data Organization and Analysis (Credits:3-0-0)
5. EE415: Restructured Power System (Credits:3-0-0)
6. EE423: Transducers in Instrumentation (Credits:3-0-0)
7. EE425: Ultrasonic, Laser and Fiber Optic Based Instrumentation (Credits:3-0-0)
8. EE427: Microelectronics Technology (Credits:3-0-0)
9. EE515: Soft Computing Techniques(Credits:3-0-0)
10. EE 429: Advance Instrumentation(Credits:3-0-0)
11. EE 431: Optimal Control Theory(Credits:3-0-0)
12. EE433: Power Converters and its Applications (Credits:3-0-0)
13. EE435: Power System Transients (Credits:3-0-0)
14. EE437: Project Engineering & Management (Credits:3-0-0)
15. EE 439: Renewable & Non Conventional Energy Sources(Credits:3-0-0)
16. EE 441: Low Power VLSI Circuits & Systems(Credits:3-0-0)
17. M.Tech. (Power Systems) Electives
18. M.Tech (I & C) Electives