5 Year Dual Degree Programme (Electrical Engineering, Batch 2015 onwards)

SEMESTER-I					Course type
Sr. No.	Subject Code	Courses	L-T-P	Credits	
		THEORY			
1	PH102	Engineering Physics	3-1-0	4	C
2	MA101	Engineering Mathematics - I	3-1-0	4	C
3	ME101	Engineering Mechanics	2-1-0	3	C
4	CS101	Computer Programming - I	2-0-0	2	SEC
5	EE102	Electrical Technology	2-1-0	3	C
6	EN101	English Proficiency	2-0-0	2	AECC
7		Open Elective	2-0-0	2	OE1
		PRACTICALS			
8	PH104	Engineering Physics Lab	0-0-2	1	C
9	ME102	Engg. Workshop	0-0-3	2	C
10	CS181	Computer Programming Lab-I	0-0-2	1	SEC
11	EE104	Electrical Technology Lab	0-0-2	1	C
12	GP	General Proficiency	-	NC	
		Total		25	
		Total Contact Hours	29		

Open Elective OE1: Courses offered from other school

74

SEMESTER - II					Course type
Sr. No.	Subject Code	Courses	L-T-P	Credits	
		THEORY			
1	CY101	Engineering Chemistry	3-1-0	4	C
2	MA102	Engineering Mathematics - II	3-1-0	4	C
3	ES101	Environment Studies	2-1-0	3	AECC
4	CS102	Computer Programming - II	2-0-0	2	SEC
5	EC101	Basic Electronics	2-1-0	3	C
6	EN102	Professional Communication	2-0-0	2	AECC
7	BS101	Human Values & Buddhist Ethics	2-0-0	2	AECC
		PRACTICALS			
8	CY103	Engineering Chemistry	0-0-2	1	C
9	EC181	Basic Electronics Lab	0-0-2	1	C
10	CE103	Engineering Graphics	0-0-3	2	C
11	CS182	Computer Programming Lab-II	0-0-2	1	SEC
11	GP	General Proficiency	-	NC	
		Total		**25**	
		Total Contact Hours	29		

75

SEMESTER-III					
Sr. No.	Subject Code	Courses	L-T-P	Credits	Course type
		THEORY			
1	MA201	Engineering Mathematics-III	3-1-0	4	C
2	EE201	Electrical Engineering Materials	2-0-0	2	C
3	EE203	Network Theory	3-0-0	3	C
4	EE-221	Electrical Measurement and Measuring Instruments	3-0-0	3	C
5	EE207	Electrical Machine-I	3-0-0	3	C
6		GE	3-0-0	3	E-GE1
		PRACTICALS			
7	EE233	Network Theory Lab	0-0-3	2	C
8	EE211	Electrical Machine - I Lab	0-0-3	2	C
9	EE231	Electrical Measurement & Measuring Instrument Lab	0-0-3	2	C
10	GP	General Proficiency	-	NC	
		Total		**24**	
		Total Contact Hour	27		

GE: Generic Elective should be relevant subject selected from relevant department

- CS205 Data Structure and Algorithms
- EC202Analog Communication
- Or any other relevant subject offered

8/8/15

8-8-15

76

SEMESTER - IV					
Sr. No.	Subject Code	Courses	L-T-P	Credits	Course type
		THEORY			
1	MA202	Numerical and Statistical Analysis	3-1-0	4	C
2	EE202	Measurement and Instrumentation	2-0-0	2	C
3	EE204	Electromagnetic Field Theory	2-0-0	2	C
4	EE226	Signals & Systems	3-0-0	3	C
5	EE208	Power System-I	3-0-0	3	C
6	EE210	Electrical Machine -II	3-0-0	3	C
		PRACTICALS			
7	EE218	MATLAB Programming Lab	0-0-3	2	SEC
8	EE214	Electrical Machine - II	0-0-3	2	C
9	EE216	Measurements and Instrumentation Lab	0-0-2	1	C
10	GP	General Proficiency	-	NC	
		Total		22	
		Total Contact Hour	27		

SEMESTER – V					
Sr. No.	Subject Code	Courses	L-T-P	Credits	Course type
		THEORY			
1	EE301	Power System-II	3-0-0	3	C
2	EE303	Electronic Devices & Circuits (EDC)	3-0-0	3	C
3	EE305	Control System-I	3-0-0	3	C
4	EE-307	Communication Systems	3-0-0	3	C
5	EE309	Power Electronics	3-0-0	3	C
6		Open Elective	3-0-0	3	OE2
		PRACTICALS			
7	EE313	Control System Lab	0-0-3	2	C
8	EE317	Electronic Devices & Circuits (EDC) (Lab in ICT)	0-0-3	2	C
9	EE319	Power Electronics Lab	0-0-3	2	C
10	GP	General Proficiency		NC	
		Total		**24**	
		Total Contact Hours	27		

Open Elective OE2

Courses offered from other school

8/8/15

8-8-15

SEMESTER – VI					
Sr. No.	Subject Code	Courses	L-T-P	Credits	Course type
		THEORY			
1	EE302	Electric Drives	3-0-0	3	C
2	EE304	Switchgear and Protection	3-0-0	3	C
3	EE306	Digital Electronics	3-0-0	3	C
4	EE308	Control System-II	3-0-0	3	C
5	EE310	Digital Signal Processing	3-0-0	3	C
6	CE318	Disaster Management	2-0-0	2	E-GE2
		PRACTICALS			
7	EE322	Switchgear and Protection Lab	0-0-3	2	C
8	EE344	Digital Electronics Lab (In ICT)	0-0-3	2	C
9	EE366	Electric Drives Lab	0-0-3	2	C
10	GP	General Proficiency		NC	
		Total		23	
		Total Contact Hours	25		

GE: Generic Elective should be selected from relevant department

8/8/15

8-8-15

79

SEMESTER – VII

Sr. No.	Subject Code	Courses	L-T-P	Credits	t
		THEORY			
1	MA406/MA507/MA402/ME401	Operation Research /Optimization Techniques/ Modeling and Simulation/Power Plant Engineering	3-1-0	4	E-
2	EE401	Micro Processor & Micro Controller	3-0-0	3	
3	EE571	Power System Analysis and Control	3-0-0	3	
4		Elective -I	3-0-0	3	ED
5		Elective– II	3-0-0	3	ED
6		Elective - III	3-0-0	3	ED
		PRACTICALS			
7	EE591	Power System Lab	0-0-3	2	(
8	EE499	Micro processor & Micro Controller Lab	0-0-3	2	(
9	EE597	Seminar	0-0-3	2	SE
10	GP	General Proficiency	-	NC	
		Total		**25**	
		Total Contact Hours	27		

SEMESTER – VIII (Specialization in M.Tech. PS/PED/IC)

Sr. No.	Subject Code	Courses	L-T-P	Credits
		Elective –		
		THEORY		
		Total		**23**
		M.Tech. -II[rd] semester curriculum		

SUMMER SEMESTER (AFTER VIII SEMESTER)

Sr. No.	Subject Code	Courses	L-T-P	Credits	Cou Typ
1.	EE600	Summer Project/Industrial Training		5	EDP
		Total		5	
		Total Contact Hours			

SEMESTER – IX (Specialization in M.Tech. PS/PED/IC)				
Sr. No.	Subject Code	Courses	L-T-P	Credits
	M.Tech. -III[rd] semester curriculum			
		Total	22	

SEMESTER – X (Specialization in M.Tech. PS/PED/IC)				
Sr. No.	Subject Code	Courses	L-T-P	Credits
	M.Tech. (Power Systems)-IV[th] semester curriculum			
		Total	22	

List of Electives for Integrated M.Tech (EE)

Elective-I, II & II

1. EE407: Utilization of Electric Power & SCADA Systems (Credits:3-0-0)
2. EE423: Transducers in Instrumentation (Credits:3-0-0)
3. EE425: Ultrasonic, Laser and Fiber Optic Based Instrumentation (Credits:3-0-0)
4. EE427: Microelectronics Technology (Credits:3-0-0)
5. EE579: Failure Data Organization and Analysis (Credits:3-0-0)
6. EE581: Restructured Power System (Credits:3-0-0)
7. EE575: Renewable & Non Conventional Energy Sources(Credits:3-0-0)
8. EE585: Power Converters and its Applications (Credits:3-0-0)
9. EE573: Power System Transients (Credits:3-0-0)
10. EE551: Introduction to MEMS (Credits:3-0-0)
11. EE543: Embedded Systems (Credits:3-0-0)
12. EE531: Advance Instrumentation(Credits:3-0-0)
13. EE535: Optimal Control Theory(Credits:3-0-0)
14. EE533: Advance Control Theory
15. EE501: Power Electronics Devices and Magnetics
16. EE503: Modeling of Electrical Apparatus
17. EE505: DC Power Converters
18. EE437: Project Engineering & Management (Credits:3-0-0)
19. EE 441: Low Power VLSI Circuits & Systems(Credits:3-0-0)
20. EE443:Introduction to VLSI
21. EE445: Utilization of Electrical Energy and Traction
22. EE453: High Voltage Engineering
23. EE455:Computer Applications to Electrical Engineering
24. EE457: Research Methodology for Electrical Engg.
25. M.Tech. (Power Systems) Electives; M.Tech (I & C) Electives; M.Tech. (PED) Courses

8/8/15

21-8-15