


Department of Electrical Engineering

ANNEXURE –IV

PROPOSED STRUCTURE

-SY, TY and Final Year B. Tech. (Electrical) Part Time


Approved in XXIVth Academic
Council, Dated 23/07/2022

Teaching and Evaluation Scheme from year 2022-23
Second Year Part Time B. Tech. Program in Electrical Engineering
Semester III

Semester III Courses				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II (CT)	ISE III	ESE	Total
1	BSC	MABS 2002	Mathematics -III	2	1	-	3	15	15	10	60	100
2	PC-I	EEPC2001	Network Analysis	3	-	-	3	15	15	10	60	100
3	PC- II	EEPC2002	Electrical Machines-I	3	-	-	3	15	15	10	60	100
4	PC-III	EEPC2003	Electrical Measurement & Instrumentation	3	-	-	3	15	15	10	60	100
6	PC- I	EEPC2005	Lab Network Analysis	-	-	2	1	25	-	-	25	50
7	PC-III	EEPC2007	Lab: Electrical Machines-I	-	-	2	1	25	-	-	25	50
8	PC IV	EEPC2008	Lab Electrical Measurement & Instrumentation	-	-	2	1	25	-	-	25	50
Total				11	1	6	15	135	60	40	315	550

Semester IV

Semester IV Courses				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE I (CT)	ISE III	ESE	Total
1	PCIV	EEPC2004	Analog Electronic Circuits	3	-	-	3	15	15	10	60	100
2	ESC	EEES2020	Electromagnetic Field	3	-	-	3	15	15	10	60	100
3	ESC	EEES2021	Numerical Computational Techniques	3	-	-	3	15	15	10	60	100
4	MC	EEEC2010 ENMC2010	Environmental Studies	3	-	-	-	15	15	10	60	100
5	PC-IV	EEPC2006	Lab Analog Electronic Circuits	-	-	2	1	25	-	-	25	50
6	ESC	EEES2026	Lab Numerical Computational Techniques	-	-	2	1	25	-	-	25	50
7	OE -I			3	-	-	3	15	15	10	60	100
Total				15	-	4	14	125	75	50	350	600

Semester V

Semester IV Courses				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE I (CT)	ISE III	ESE	Total
1	PC-V	EEPC2022	Electrical Machines -II	3	-	-	3	15	15	10	60	100
2	PC-VI	EEPC2023	Power System - I	3	-	-	3	15	15	10	60	100
3	ESC	EEES2024	Renewable Energy Systems	3	-	-	3	15	15	10	60	100
4	OE- II			3	-	-	3	15	15	10	60	100
5	PC-V	EEPC2025	Lab Electrical Machines -II	-	-	2	1	25	-	-	25	50
Total sem V				12	-	02	13	85	60	40	265	450
Total of (III, IV, V sem) SY BTech PT				38	1	12	42	345	195	130	930	1600

Industrial Training of minimum 4 weeks after second/third year. After completion of Industrial Training of minimum 4 weeks, one credit will be awarded in VII semester.*ISE I and ISE III will be compulsory Tests, ISE III will be based on any one of following components - Surprise Test, Declared Test, MCQ Test, Assignments, PPT presentation, Quiz, Fabrication of working model etc. However, course coordinator shall declare method of evaluation at beginning of course.

Signature
Approved in XXIVth Academic
Council, Dated 23/07/2022

Teaching and Evaluation Scheme from year January 2024
Third Year Part-Time B. Tech. Program in Electrical Engineering

Semester VI

Semester V Course				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II	ISE III	ESE	Total
1	PC-VII	EEPC3001	Control Systems- I	3	-	-	3	15	15	10	60	100
2	PC-VIII	EEPC3002	Digital Circuits	3	-	-	3	15	15	10	60	100
4	PE- I			3	-	-	3	15	15	10	60	100
5	HSMC-II			3	-	-	3	15	15	10	60	100
7	PC-VII	EEPC3004	Lab Control Systems - I	-	-	2	1	25	-	-	25	50
8	PC-VIII	EEPC3005	Lab Digital Circuits	-	-	2	1	25	-	-	25	50
Total				12	-	04	14	110	60	40	290	500

Semester VII

Semester V Course				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II	ISE III	ESE	Total
1	PC- IX	EEPC3003	Power System- II	3	-	-	3	15	15	10	60	100
2	OE-III			3	-	-	3	15	15	10	60	100
3	PC-X	EEPC3020	Microcontroller & Applications	3	-	-	3	15	15	10	60	100
4	HSMC- III			3	-	-	3	15	15	10	60	100
5	PC IX	EEPC3006	Lab Power System- II	-	-	2	1	25	-	-	25	50
6	PC-X	EEPC3024	Lab Microcontroller & Applications	-	-	2	1	25	-	-	25	50
Total				12	-	04	14	110	60	40	290	500

Semester VIII

Semester VIII Course				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II	ISE III	ESE	Total
1	PC-XI	EEPC3021	Control Systems -II	3	-	-	3	15	15	10	60	100
2	PC XII	EEPC3022	Power Electronics	3	-	-	3	15	15	10	60	100
3	ESC	EEES3023	Artificial Intelligence & Machine Learning	3	-	-	3	15	15	10	60	100
4	OE IV			3	-	-	3	15	15	10	60	100
5	PC XII	EEPC3025	Lab Power Electronics	-	-	2	1	25	-	-	25	50
6	ESC	EEES3026	Lab Artificial Intelligence & Machine Learning	-	-	2	1	25	-	-	25	50
7	PE- II (Lab)			-	-	2	1	25	-	-	25	50
Total sem VIII				12	-	06	15	135	60	40	315	550
Total of TY.B. Tech				36	-	14	43	355	180	120	895	1550

Industrial Training of minimum 4 weeks after second/third year. After completion of Industrial Training of minimum 4 weeks, One credit will be awarded in VII semester. *ISE I and ISE II will be compulsory tests, ISE III will be based on any one of following components - Surprise Test, Declared Test, MCQ Test, Assignments, PPT presentation, Quiz, Fabrication of working model etc. However, course coordinator shall declare method of evaluation at beginning of course.

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Council, Dated 23/07/2022

Teaching and Evaluation Scheme from year June 2025
Final Year part Time B. Tech. Program in Electrical Engineering
Semester IX

Semester VII Course				Teaching scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II (CT)	ISE III	ESE	Total
1	PC XIII	EEPC4001	Electric Drives	3	-	-	3	15	15	10	60	100
2	PC XIV	EEPC4002	Power System Protection	3	-	-	3	15	15	10	60	100
3	PE-III			3	-	-	3	15	15	10	60	100
4	PC XVI	EEPC4004	Lab Electric Drives	-	-	2	1	25	-	-	25	50
5	PC XIV	EEPC4005	Lab Power System Protection	-	-	2	1	25	-	-	25	50
6	\$ABPDC		Activity- 1	-	-	-	-	-	-	-	-	-
Total				09	-	04	11	95	45	30	230	400

\$ Activity based activities personality development courses are to be performed from 3rd semester to 10th semester.

Semester X

Semester VIII Course				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II (CT)	ISE III	ESE	Total
1	PC XV	EEPC4003	Digital Signal Processing	3	-	-	3	15	15	10	60	100
2	OE-V			3	-	-	3	15	15	10	60	100
3	HSMC-IV**			3	-	-	3	15	15	10	60	100
4	Project Phase I			-	-	6	3	50	-	-	50	100
5		EEPC4007	Industrial Training	-	-	-	1	-	-	-	-	-
6	\$ABPDC		Activity- 2	-	-	-	-	-	-	-	-	-
Total				9	-	6	13	95	45	30	230	400

**To be completed online mode or allied courses from MOOCs by the students who wish to go for one semester long internship in Industry/Research Organization. However, normal track students will complete these courses in offline mode in college.

Semester XI (One semester long internship in industry/Research Organisation students)**

Semester VIII Course				Teaching Scheme			Continuous Evaluation in terms of Marks					
Sr No	Category	Course Code	Course Name	TH	T	PR	Credits	ISE I	ISE II (CT)	ISE III	ESE	Total
1	PE-IV**			3	-	-	3	15	15	10	60	100
2	PE-V**			3	-	-	3	15	15	10	60	100
3	Project Phase II	EEPC4020		-	-	12	6	75	-	-	75	150
4	Total			6	-	12	12	105	30	20	195	350
Total of Final year B Tech				24	-	22	36	295	120	80	655	1150

**To be completed online mode or allied courses from MOOCs by the students who wish to go for one semester long internship in Industry/Research Organization. However, normal track students will complete these courses in offline mode in college.

*ISE I, II will be compulsorily Class Test and ISE III will be based on any one of the following components - Surprise Test, Declared Test, MCQ Test, Assignments, PPT presentation, Quiz, Fabrication of working model etc. However, the course coordinator shall declare a method of evaluation at the beginning of the course.

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List of Professional Electives

Courses	1	2	3	4	5	6
PE I EEPE 3010-3015	Electrical Machine Design EEPE 3010	High Voltage Engineering EEPE 3011	Energy Storage System EEPE 3013	Utilization of Electrical Energy EEPE 3014	Optimization Techniques EEPE 3015	
PEC II (LAB) EEPE3031-36	Lab Circuit Simulation EEPE3031	Lab Renewable Energy Technology EEPE3032	Lab High Voltage Engineering EEPE3033	Lab Electrical Estimation & Testing EEPE3034	Lab Internet of Things EEPE3035	Lab Energy Storage Systems EEPE3036
PEC III EEPE4010-4015	Applications of Embedded systems EEPE4010	Power Systems Dynamics & Control EEPE4011	HVDC & FACT EEPE4012	Reliability & Condition Monitoring EEPE4013	Smart Grid Technology EEPE4014	Computer Methods in Power Systems EEPE4015
PEC IV EEPE4021-26	Power Quality & Its Mitigation EEPE4021	Restructured Power Systems EEPE4022	Energy Conservation & Management EEPE4023	EHVAC Transmission EEPE4024	Advanced Protective Relaying EEPE4025	Electrical power Distribution system EEPE4026
PEC V EEPE4027-31	Applications of Power Electronics to Industry EEPE4027	Electrical Vehicle EEPE4028	Power Converters EEPE4029	Industrial Instrumentation and Automation EEPE4030	Illumination Engineering EEPE4031	

Tentative List of Open Elective courses

Sr. No.	Course Code	Course Name	Pre-requisite	Eligible students from departments	Credits L-T-P	Offered Semester	Suggested by dept
1	EEOE2009	Energy and Environment	No	All branches except Electrical	3-0-0	Odd	Electrical Dept
2	EEOE3007	Modeling and Simulation	No	All branches	3-0-0	Odd	Electrical Dept
3	EEOE3008	Industrial Automation and Control	No	All branches	3-0-0	Odd	Electrical Dept
4	EEOE4008	Electric Vehicle	No	All branches except Electrical	3-0-0	Odd	Electrical Dept
5	EEOE2027	Power Plant Engineering	No	All branches except Electrical	3-0-0	Even	Electrical Dept
6	EEOE3017	Renewable Energy Technology	No	All branches except Electrical	3-0-0	Even	Electrical Dept
7	EEOE3018	Evolutionary Algorithms for Optimization	No	All branches	3-0-0	Even	Electrical Dept

Chairperson/HEED


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