

**B. TECH (ELECTRICAL ENGINEERING)**  
**CURRICULAR STRUCTURE AND EVALUATION SCHEME – 1<sup>ST</sup> YEAR**

**SEMESTER: 1<sup>ST</sup>**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 101	Basic Electrical Engineering	ESC	4	3	1	-	25	25	50	100
PEE 151	Basic Electrical Engineering Lab	ESC	1	-	-	2	25	25	50	100

**SEMESTER: 2<sup>ND</sup>**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 201	Basic Electrical Engineering	ESC	4	3	1	-	25	25	50	100
PEE 251	Basic Electrical Engineering Lab	ESC	1	-	-	2	25	25	50	100

**B. TECH (ELECTRICAL ENGINEERING)**  
**CURRICULAR STRUCTURE AND EVALUATION SCHEME – 2<sup>ND</sup> YEAR**

**SEMESTER: III**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 301	Electrical Circuit Analysis	CC	4	3	1	-	25	25	50	100
TEE 305	Analog Electronics	CC	3	3	-	-	25	25	50	100
TEE 302	Electrical Machines – I	CC	3	3	-	-	25	25	50	100
TEE 304	Electromagnetic Fields	CC	4	3	1	-	25	25	50	100
TEE 303	Electrical and Electronics Measuring Instruments	CC	3	3	-	-	25	25	50	100
PEE 351	Analog Electronics Lab	CC	1	-	-	2	25	25	50	100
PEE 352	Electrical Machines-I Lab	CC	1	-	-	2	25	25	50	100
XCS 301	Career Skill -I	HSMC	1	2	-	-	25	25	50	100
GP 301	General Proficiency	GP	1	-	-	-	-	-	-	100
<b>Total</b>			<b>21</b>							<b>900</b>

**SEMESTER: IV**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 404	Digital Electronics	CC	3	3	-	-	25	25	50	100
TEE 401	Electrical Machines – II	CC	3	3	-	-	25	25	50	100
TEE 402	Introduction to Electrical Energy Sources	CC	3	3	-	-	25	25	50	100
TEE 403	Signals and Systems	CC	3	2	1	-	25	25	50	100
TMA 401	Mathematics – III	BSC	4	3	1	-	25	25	50	100
PEE 453	Digital Electronics Lab	CC	1	-	-	2	25	25	50	100
PEE 451	Electrical Machines-II Lab	CC	1	-	-	2	25	25	50	100
PEE 452	Electrical Measurements Lab	CC	1	-	-	2	25	25	50	100
XCS 401	Career Skill -II	HSMC	1	2	-	-	25	25	50	100
GP 401	General Proficiency	GP	1	-	-	-	-	-	-	100
<b>Total</b>			<b>21</b>							<b>1000</b>

**B. TECH (ELECTRICAL ENGINEERING)**  
**CURRICULAR STRUCTURE AND EVALUATION SCHEME – 3<sup>RD</sup> YEAR**

**SEMESTER: V**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 501	Power Systems-I	CC	3	3	-	-	25	25	50	100
TEE 502	Control Systems	CC	3	3	-	-	25	25	50	100
TEE 503	Microprocessors	CC	3	3	-	-	25	25	50	100
	Program Elective – 1	PEC	3	3	-	-	25	25	50	100
	Open Elective-1	OEC	3	3	-	-	25	25	50	100
UCE - 501	Disaster Management	HSMC	3	3	-	-	25	25	50	100
PEE 551	Power Systems Lab-I	CC	1	-	-	2	25	25	50	100
PEE 552	Control Systems Lab	CC	1	-	-	2	25	25	50	100
PEE 553	Microprocessors Lab	CC	1	-	-	2	25	25	50	100
XCS 501	Career Skill -III	HSMC	1	2	-	-	25	25	50	100
GP 501	General Proficiency	GP	1	-	-	-	-	-	-	100
	<b>Total</b>		<b>23</b>							<b>1100</b>

**SEMESTER: VI**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 601	Power Electronics	CC	3	3	-	-	25	25	50	100
TEE 602	Power Systems – II	CC	3	3	-	-	25	25	50	100
TEE 603	Power System Protection	CC	3	3	-	-	25	25	50	100
	Program Elective – 2	PEC	3	3	-	-	25	25	50	100
	Program Elective – 3	PEC	3	3	-	-	25	25	50	100
	Open Elective-2	OEC	3	3	-	-	25	25	50	100
PEE 651	Power Electronics lab	CC	1	-	-	2	25	25	50	100
PEE 652	Power Systems-II Lab	CC	1	-	-	2	25	25	50	100
PEE 653	Electronics Design Lab	CC	1	-	-	2	25	25	50	100
XCS 601	Career Skill -IV	HSMC	1	2	-	-	25	25	50	100
GP 601	General Proficiency	GP	1	-	-	-	-	-	-	100
	<b>Total</b>		<b>23</b>							<b>1100</b>

**B. TECH (ELECTRICAL ENGINEERING)**  
**CURRICULAR STRUCTURE AND EVALUATION SCHEME – 4<sup>TH</sup> YEAR**

**SEMESTER: VII**

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Code	Title	Component								
TEE 701	Electrical Drives	CC	3	3	-	-	25	25	50	100
TEE 702	Non-conventional resources and Energy systems	CC	3	3	-	-	25	25	50	100
	Program Elective -4	PEC	3	3	-	-	25	25	50	100
	Open Elective-3	OEC	3	3	-	-	25	25	50	100
	Open Elective-4	OEC	3	3	-	-	25	25	50	100
PEE 751	Electrical Drives Lab	CC	1	-	-	2	25	25	50	100
EEP 751	Project Phase – I	PJ	3	-	-	6	100	-	-	100
SE 701	Industrial Seminar	SM	1	-	-	2	100	-	-	100
GP 701	General Proficiency	GP	1	-	-	-	-	-	-	100
<b>Total</b>			<b>24</b>							<b>900</b>

**SEMESTER: VIII**

COURSE DETAILS				TEACHING PERIODS			WEIGHTAGE: EVALUATION			
COURSE			Credits	L	T	P	C WA	MSE	ESE	Total
Course	Title	Component								
	Program Elective -5	PEC	3	3	-	-	25	25	50	100
	Open Elective-5	OEC	3	3	-	-	25	25	50	100
	Open Elective-6	OEC	3	3	-	-	25	25	50	100
EEP 851	Project Phase-II	PJ	8	-	-	16	50	-	50	100
GP 801	General Proficiency	GP	1	-	-	-	-	-	-	100
<b>Total</b>			<b>18</b>							<b>500</b>

**PROFESSIONAL ELECTIVE COURSES [ELECTRICAL ENGINEERING]**

<b>Course Type</b>	<b>Semester</b>	<b>Course Name</b>	<b>Course Code</b>
Program Elective - I	5 <sup>TH</sup>	Electrical Machine Design	TEE 504
		Electromagnetic Waves	TEE 505
		Digital Signal Processing	TEE 506
		Electrical Engineering Materials	TEE 507
Program Elective – II	6 <sup>TH</sup>	Industrial Electrical Systems	TEE 604
		Digital Control Systems	TEE 605
		Computer Architecture	TEE 606
		Computational Electromagnetics	TEE 607
Program Elective - III	6 <sup>TH</sup>	High Voltage Engineering	TEE 608
		Optimization Techniques	TEE 609
		Industrial Instrumentation	TEE 610
		Special Electrical Machines	TEE 611
Program Elective - IV	7 <sup>TH</sup>	Advanced Power Electronics	TEE 703
		Electrical and Hybrid Vehicles	TEE 704
		Modern Control System	TEE 705
		Utilization of Electrical Energy	TEE 706
		Electrical Energy Management and Auditing	TEE 707
		HVDC Transmission Systems	TEE 708
		Electrical Design Estimating and Costing	TEE 709
		Power Quality and FACTS	TEE 710
		Industry 4.0	TEE 711
Program Elective - V	8 <sup>TH</sup>	Power Plant Instrumentation	TEE 801
		Wind and Solar Energy Systems	TEE 802
		Advanced Electric Drives	TEE 803
		Power System Dynamics and Control	TEE 804

**OPEN ELECTIVE COURSES [ELECTRICAL ENGINEERING]**

S. No.	Semester	Course Name	Course Code
1.	<b>V Open Elective 1</b>	Data Structure	TOE 501
2.		Computer Based Numerical and Statistical Techniques	TOE 502
3.		Electronic Devices	TOE 503
4.		Data Structure Lab	POE 501**
5.		Industrial Engineering	TOE 504
1.	<b>VI Open Elective 2</b>	Computer Networks	TOE 601
2.		Object Oriented programming and C++	TOE 602
3.		Industrial automation	TOE 603
4.		Communication Engineering	TOE 604
1.	<b>VII Open Elective 3 &amp; 4</b>	Condition Monitoring and Diagnostics	TOE 701
2.		IT in Business	TOE 702
3.		Biomedical Electronics	TOE 703
4.		Fundamentals of IoT	TOE 704
5.		Quality Control	TOE 705
6.		Optical Fiber Communications	TOE 706
7.		Artificial Intelligence	TOE 707
8.		Mechatronics	TOE 708
1.	<b>VIII Open Elective 5 &amp; 6</b>	Expert System and Fuzzy Logic	TOE 801
2.		Intelligent Sensors and Instrumentation	TOE 802
3.		Engineering economics	TOE 803
4.		Advanced Welding Technology	TOE 804
5.		Robotics	TOE 805
6.		Mobile Computing	TOE 806

\*\*The DS lab will be valid for students who would opt for Data Structure (TOE 501)