COURSE STRUCTURE- 2021 PATTERN

SECOND YEAR B. TECH. ELECTRICAL ENGINEERING

SEMESTER-III

Course			Teaching Scheme Hours/week				Evaluation Scheme-Marks					
							Theory					
Cat.	Code	Title	L	T	P	Credits	ESE	CIA	OR	PR	TW	Total
PCC	EE201	Electrical Engineering Materials	3	-	-	3	60	40	-	-	-	100
BSC	BS202	Engineering Mathematics III	3	1	-	4	60	40	-	-	-	100
PCC	EE203	Electrical Measurements and Instrumentation	4	-	-	4	60	40	-	-	-	100
PCC	EE204	Analog and Digital Electronics	3	-	-	3	60	40	-	-	-	100
HSMC	HS205	Universal Human Values & Professional Ethics	3	-	-	3	60	40	-	-	-	100
HSMC	EE206	General Proficiency	-	-	2	1	-	-	-	-	50	50
LC	EE207	Electrical Engineering Materials Laboratory	-	-	2	1	-	-	50	-	-	50
LC	EE208	Electronics and Electrical Instrumentation Laboratory	-	-	2	1	-	-	-	50	-	50
LC	EE209	Electrical Design and Modelling-I Laboratory	-	-	2	1	-	-	-	50	-	50
MLC	MC210	Mandatory Learning Course-III **A.** Constitution of India – Basic features and fundamental principles	2	-	-	Non Credit	-	-	-	-	-	Pass/Fail
Total			**18**	**1**	**8**	**21**	**300**	**200**	**50**	**100**	**50**	**700**

COURSE STRUCTURE- 2021 PATTERN
SECOND YEAR B. TECH. ELECTRICAL ENGINEERING

SEMESTER-IV

Course			Teaching Scheme Hours/week				Evaluation Scheme-Marks					
							Theory					
Cat.	Code	Title	L	T	P	Credits	ESE	CIA	OR	PR	TW	Total
PCC	EE211	Numerical Computations with Signals and Systems	3	1	-	4	60	40	-	-	-	100
PCC	EE212	Network Analysis	3	1	-	4	60	40	-	-	-	100
PCC	EE213	Electrical Machines I	4	-	-	4	60	40	-	-	-	100
PCC	EE214	Power System I	3	-	-	3	60	40	-	-	-	100
PROJ	EE215	Project Based Learning	-	-	2	1	-	-	-	-	50	50
HSMC	HS216	Corporate Readiness-I	-	-	2	1	-	-	-	-	50	50
PROJ	EE217	Professional Development	-	-	2	1	-	-	-	-	25	25
LC	EE218	Network Analysis Laboratory	-	-	2	1	-	-	25	-	-	25
LC	EE219	Electrical Machines I Laboratory	-	-	2	1	-	-	-	50	-	50
LC	EE220	Power System I Laboratory	-	-	2	1	-	-	25	-	-	25
LC	EE221	Electrical Design and Modelling-II Laboratory	-	-	2	1	-	-	-	50	-	50
LC	EE222	Software Programming Laboratory	-	-	2	1	-	-	25	-	-	25
MLC	MC222	Mandatory Course-IV **A.** Innovation - Project based – Sci., Tech, Social, Design & Innovation	2	-	-	Non Credit	-	-	-	-	-	Pass/Fail
		Total	**15**	**2**	**16**	**23**	**240**	**160**	**75**	**100**	**125**	**700**

COURSE STRUCTURE- 2021 PATTERN

THIRD YEAR B. TECH. ELECTRICAL ENGINEERING

SEMESTER- V

Course			Teaching Scheme Hours/week				Evaluation Scheme-Marks					
							Theory					
Cat.	Code	Title	L	T	P	Credits	ESE	CIA	OR	PR	TW	Total
PCC	EE301	Microcontrollers And Applications	3	-	-	3	60	40	-	-	-	100
PCC	EE302	Electrical Machines II	3	-	-	3	60	40	-	-	-	100
PCC	EE303	Power System II	3	-	-	3	60	40	-	-	-	100
PCC	EE304	Power Electronics	3	-	-	3	60	40	-	-	-	100
PEC	EE305	Professional Elective-I **A.** Renewable Energy Sources **B.** Smart Grid **C.** Industry 4.0	3	-	-	3	60	40	-	-	-	100
LC	EE306	Microcontrollers And Applications Laboratory	-	-	2	1	-	-	25	-	-	25
LC	EE307	Electrical Machines II Laboratory	-	-	2	1	-	-	-	25	-	25
LC	EE308	Power System II Laboratory	-	-	2	1	-	-	25	-	-	25
LC	EE309	Power Electronics Laboratory	-	-	2	1	-	-	-	25	-	25
PROJ	EE310	Corporate Readiness-II	-	-	2	1	-	-	-	-	50	50
PROJ	EE311	Seminar & Technical Communication Skills	-	-	4	2	-	-	-	-	50	50
MLC	MC312	Mandatory Learning Course-V **A.** Electrical Energy Conservation and Auditing	1	-	-	Non Credit	-	-	-	-	-	Pass/Fail
		Total	**16**	**-**	**14**	**22**	**300**	**200**	**50**	**50**	**100**	**700**

COURSE STRUCTURE- 2021 PATTERN
THIRD YEAR B. TECH. ELECTRICAL ENGINEERING

SEMESTER- VI

Course			Teaching Scheme Hours/week				Evaluation Scheme-Marks					
							Theory					
Cat.	Code	Title	L	T	P	Credits	ISE	CIA	OR	PR	TW	Total
PCC	EE313	Power System Operation and Control	3	-	-	3	60	40	-	-	-	100
PCC	EE314	Feedback Control Systems	3	1	-	4	60	40	-	-	-	100
PCC	EE315	Computer Aided Electrical Machine Design	3	-	-	3	60	40	-	-	-	100
PEC	EE316	Professional Elective-II A. Electrical Drives B. Utilization of Electrical Energy C. PLC and SCADA D. Building automation and Control	3	-	-	3	60	40	-	-	-	100
PROJ	PR317	IPR & EDP	2	-	-	2	30	20	-	-	-	50
LC	EE318	Power System Operation and Control Laboratory	-	-	2	1	-	-	25	-	-	25
LC	EE319	Feedback Control Systems Laboratory	-	-	2	1	-	-	-	50	-	50
LC	EE320	Computer Aided Electrical Machine Design	-	-	2	1	-	-	25	-	-	25
PROJ	PR321	Project Based Learning	-	-	2	1	-	-	-	-	25	25
HSMC	EE322	Creational Activity	-	-	2	1	-	-	-	-	25	25
MLC	MC323	Mandatory Learning Course-VI A. Professional Leadership skills	-	-	2	Non Credit	-	-	-	-	-	Pass/Fail
		Total	**14**	**1**	**12**	**20**	**270**	**180**	**50**	**50**	**50**	**600**

COURSE STRUCTURE- 2021 PATTERN
FINAL YEAR B. TECH. ELECTRICAL ENGINEERING

SEMESTER- VII

Course			Teaching Scheme Hours/week				Evaluation Scheme-Marks					
							Theory					
Cat.	Code	Title	L	T	P	Credits	ESE	CIA	OR	PR	TW	Total
PCC	EE401	Switch Gear and Protection	3	-	-	3	60	40	-	-	-	100
PCC	EE402	Control System Design	3	-	-	3	60	40	-	-	-	100
PCC	EE403	High Voltage Engineering	3	-	-	3	60	40	-	-	-	100
PEC	EE404	Professional Elective-III **A.** Electric and Hybrid Vehicle **B.** HVDC Transmission Systems **C.** Digital signal Processing	3	-	-	3	60	40	-	-	-	100
PEC	EE405	Professional Elective-IV **A.** Power Quality **B.** Transmission and Distribution **C.** Intelligent Systems with AI and ML	3	-	-	3	60	40	-	-	-	100
LC	EE406	Switch Gear and Protection Laboratory	-	-	2	1	-	-	50	-	-	50
LC	EE407	Control System Design Laboratory	-	-	2	1	-	-	50	-	-	50
LC	EE408	High Voltage Engineering Laboratory	-	-	2	1	-	-	-	50	-	50
PROJ	EE409	Project Stage I	-	-	4	2	-	-	50	-	50	100
MLC	MC410	Mandatory Learning Course-VII **A.** Financially Smart	1	-	-	Non Credit	-	-	-	-	-	Pass/ Fail
		Total	**17**	**-**	**12**	**20**	**300**	**200**	**150**	**50**	**100**	**750**

COURSE STRUCTURE- 2021 PATTERN
FINAL YEAR B. TECH. ELECTRICAL ENGINEERING

SEMESTER- VIII

Course			Teaching Scheme Hours/week				Evaluation Scheme-Marks					
							Theory					
Cat.	Code	Title	L	T	P	Credits	ISE	ESE	OR	PR	TW	Total
OEC	EE411	Open Elective I (NPTEL)	3	-	-	3	50	50	-	-	-	100
OEC	EE412	Open Elective-II (NPTEL)	3	-	-	3	50	50	-	-	-	100
OEC	EE413	Open Elective III (NPTEL)	2	-	-	2	50	50	-	-	-	100
PROJ	EE414	Project Stage-II	-	-	4	2	-	-	50	-	100	150
PROJ	EE415	Internship	-	-	12	6	-	-	50	-	-	50
		Total	**9**	**-**	**16**	**16**	**150**	**150**	**100**	**-**	**100**	**500**