2nd year B.Tech Electrical Engineering
Program Structure
For AY 2020-21

Cat	Course	LTP	CH	NC	GC	Cat	Course	LTP	CH	NC	GC
	I Semester						**II Semester**				
IE	Introduction to Electrical Engineering	3-0-2	5	-	4	IE	Engineering Mechanics	2-1-0	3	-	3
IE	Introduction to Computer Science	3-0-2	5	-	4	IS	Chemistry	3-0-0	3	-	3
IE	Introduction to Bioengineering	3-0-2	5	-	4	IS	Physics	3-0-0	3	-	3
						IS	Chemistry Lab	0-0-2	2	-	1
						IS	Physics Lab	0-0-2	2	-	1
IS	Mathematics I	3-1-0	4	-	4	IS	Mathematics II	3-1-0	4	-	4
IE	Engineering Visualization	0-0-2	2	-	1	IE	Engineering Realization	0-0-2	1	-	1
NE	Engineering Design I	0-0-2	2	1	-	NE	Engineering Design II	0-0-2	2	1	-
NH	Communication Skill I	0-0-2	2	1	-	NH	Communication Skill II	0-0-2	2	1	-
NH	Social Connect and responsibilities I	0-0-1	1	0.5	-	NH	Social Connect and responsibilities II	0-0-1	1	0.5	-
NH	Performing Arts I /Sports I	0-0-1	1	0.5	-	NH	Performing Arts II/Sports II	0-0-1	1	0.5	-
Total		**12-1-14**	**27**	**3**	**17**		**Total**	**11-2-12**	**25**	**3**	**16**
	III Semester						**IV Semester**				
IE	Materials Science & Engineering Fractal 1 – Energy Materials Fractal 2 – Magnetic Materials F3 – Computational Material Design	3 × 1-0-0	3	-	3	IE	Pattern Recognition and Machine Learning	3-0-2	5	-	4
IE	Signals and Systems	3-1-0	4	-	4						
IE	Thermodynamics	3-1-0	4	-	4	PC	Circuit Theory	3-0-0	3	-	3
LS	robability, Statistics and	3-1-0	4	-	4	PC	Engineering Electromagnetics	3-0-0	3	-	3

	Stochastic Processes										
LS	Foundations of Quantum Information Processing	3-0-0	3	-	3	PC	Digital Design	2-0-2	4		3
PC	Structure and Algorithms	3-0-2	5	-	4	PC	Physical Electronics	3-0-0	3		3
NE	Intro. To Profession	0-0-2	2	1		IH	Humanities I	3-0-0	3	-	3
Total		18-3-4	25	1	22		Total	17-0-4	21	-	19

	V Semester						VI Semester				
PC	Analog Circuits	3-0-3	6	-	4.5	PC	Power Engineering	3-0-3	6	-	4.5
PC	Electrical Machines	3-0-0	3	-	3	PC	Digital Signal Processing	3-0-0	3	-	3
PC	Communication Systems	3-0-0	3	-	3	PC	Data Communication Networks	3-0-0	3	-	3
PC	Computer Architecture	3-0-0	3	-	3	PC	Embedded Systems	3-0-0	3	-	3
PC	Control Systems	3-0-3	6	-	4.5	PC	Communication Systems Lab	0-0-3	3	-	1.5
						PC	Digital Systems Lab	0-0-3	3	-	1.5
						PC	Electrical Machines Lab	0-0-3	3	-	1.5
IH	Humanities II	3-0-0	3	-	3	PE	Program/Open Elective	3-0-0	3		3
NH	Professional Ethics I	0-1-0		1	-	NH	Professional Ethics II	0-0-2	2	1	-
Total		18-1-6	24	1	21		Total	15-0-14	29	1	21

	VII Semester						VIII Semester				
PP	B. Tech. Project	0-0-6	6	-	3	IH	Humanities IV	3-0-0	3	-	3
PE/OE	Programme/Open Electives	-	-	-	9	PE/OE	Programme/Open Electives	-	-	-	14
IH	Humanities III	3-0-0	3	-	3						
IS	Environmental Science	2-0-0	2	-	2						
Total		15-0-6	-	-	17		Total	17-0-0	-	-	17

Total of Graded Credit										-	150
Total of Non-Graded Credit										9	-
Non-Graded Design Credits										6	-
Grand Total											165

Note: ES are proposed Engineering Science compulsory courses