

B.Tech. (EEE) R19 Course Structure

I . B.Tech. I- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Communicative English	2	-	-	2	40	60	100
2	Mathematics-I(Linear Algebra & Calculus)	2	1	-	3	40	60	100
3	Applied Chemistry	3	-	-	3	40	60	100
4	Computer Programming	3	1	-	4	40	60	100
5	English Communication Skills Lab	-	-	3	1.5	40	60	100
6	Applied Chemistry Lab	-	-	3	1.5	40	60	100
7	Computer Programming Lab	-	-	3	1.5	40	60	100
8	Engineering Workshop	-	-	3	1.5	40	60	100
9	Environmental Science	3	-	-	-	-	-	-
	Total	13	2	12	18	320	480	800

I . B.Tech. II- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Mathematics-II(PDE & Vector Calculus)	2	1	-	3	40	60	100
2	Mathematics-III (Transform Calculus & Complex Variables)	2	1	-	3	40	60	100
3	Applied Physics	3	-	-	3	40	60	100
4	Problem Solving & Programming Using Python	2	1	-	3	40	60	100
5	Engineering Graphics & Design	1	-	2	2.5	40	60	100
6	Applied physics Lab	-	-	3	1.5	40	60	100
7	Problem Solving & Programming Lab	-	-	3	1.5	40	60	100
8	Workshop (Electrical & Electronics Engineering Lab)	-	-	3	1.5	40	60	100
9	Constitution of India	2	-	-	-	-	-	-
	Total	12	3	11	19	320	480	800

II. B.Tech. I- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Power Systems-I	2	1	-	3	40	60	100
2	Electrical Circuit Analysis - I	2	-	-	2	40	60	100
3	Electromagnetic Fields	2	1	-	3	40	60	100
4	Electronic Devices and Circuits	2	1	-	3	40	60	100
5	Internet of Things	2	1	-	3	40	60	100
6	Electronic Devices and Circuits Lab	-	-	3	1.5	40	60	100
7	Business English Communication Lab	-	-	2	1.5	40	60	100
8	Internet of Things Lab	-	-	2	1.5	40	60	100
9	AI Tools, Techniques & Applications	2	1	-	3	40	60	100
10	AI Tools, Techniques & Applications Lab	-	-	3	1.5	40	60	100
11	Quantitative Aptitude-I	2	-	-	-	-	-	-
	Total	14	5	10	23	400	600	1000

II. B.Tech. II- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Power Systems-II	2	1	-	3	40	60	100
2	Electrical Circuit Analysis - II	2	-	-	2	40	60	100
3	Electrical Machines-I	2	-	-	2	40	60	100
4	Control Systems	2	1	-	3	40	60	100
5	Digital Logic Design	2	-	-	2	40	60	100
6	Elements of Civil and Mechanical Engineering	2	-	-	2	40	60	100
7	Logical Reasoning	2	-	-	2	20	30	50
8	Electrical Circuit Analysis Lab	-	-	3	1.5	40	60	100
9	Civil and Mechanical Engineering Lab	-	-	3	1.5	40	60	100
10	Socially Relevant project	-	-	2	1.5	20	30	50
Total		14	2	8	20.5	360	540	900

II. B.Tech. I- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Power Electronics	2	1	-	3	40	60	100
2	Electrical Measurements	2	1	-	3	40	60	100
3	Electrical Machines-II	2	-	-	2	40	60	100
4	Professional Elective-I							
	1.Pulse and Digital Circuits	2	1	-	3	40	60	100
	2. Energy Audit, Conservation and Management							
	3. Modern Control Theory							
	4. Programmable Logic Controllers							
5	Open Elective-I							
	1.Data Structures	2	1	-	3	40	60	100
	2. Embedded Systems							
	3. Robotics							
	4. Principles of Communication Systems							
6	Quantitative Aptitude-II	2	-	-	2	20	30	50
7	Electrical Machines – I Lab	-	-	3	1.5	40	60	100
8	Control Systems Lab	-	-	3	1.5	40	60	100
9	Advanced English Communication Skills Lab	-	-	2	1.5	40	60	100
10	Socially Relevant project	-	-	2	1.5	20	30	50
Total		12	4	10	22	360	540	900

III. B.Tech. II- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Electrical Machines-III	2	-	-	2	40	60	100
2	Power System Analysis	2	1	-	3	40	60	100
3	Microprocessors and Microcontrollers	2	1	-	3	40	60	100
4	Design Thinking & Product Innovation	2	1	-	3	40	60	100
5	Humanities Elective-I							
	1.Managerial Economics and Financial Analysis	2	1	-	3	40	60	100
	2.Professional Ethics and Human Values							
	3.Business Environment							
	4. Life Science for Engineers							
6	Open Elective-II							
	1.OOPS through Java	2	1	-	3	40	60	100
	2.VLSI Design							
	3.Operations Research							
	4. Linear Integrated Circuits & Applications.							
7	Mini Project	-	-	3	2	20	30	50
8	Electrical Machines-II Lab	-	-	3	1.5	40	60	100
9	Power Electronics Lab	-	-	3	1.5	40	60	100
10	Microprocessors and Microcontrollers Lab	-	-	3	1.5	40	60	100
	Total	12	5	12	23.5	380	570	950

IV. B.Tech. I- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	High Voltage Engineering	2	1	-	3	40	60	100
2	Switch Gear Protection	2	1	-	3	40	60	100
3	Professional Elective-II							
	1.Power Systems Operation and Control 2. HVDC Transmission 3. Utilization of Electrical Energy 4. Instrumentation	2	1	-	3	40	60	100
4	Professional Elective-III							
	1.FACTS 2.Power Quality 3.Power Semiconductor Drives 4 MATLAB Applications in Electrical Engineering	2	1	-	3	40	60	100
5	Open Elective-III							
	1.Web Technologies 2.Remote Sensing Systems 3.Optimization Techniques 4.Digital Signal Processing	2	1	-	3	40	60	100
6	Humanities Elective-II							
	1.Mangement Science 2.Intellectual Property Rights and Patents 3.Fundamentals of Entrepreneurship	2	1	-	3	40	60	100
7	Power Systems and Simulation Lab	-	-	3	1.5	40	60	100
8	Electrical Measurements Lab	-	-	3	1.5	40	60	100
	Total	12	6	6	21	320	480	800

IV. B.Tech. II- Semester

S.No	Course Title	L	T	P	C	I	E	TM
1	Professional Elective-IV (MOOC)							
	1. Renewable Energy Systems 2. Electrical Distribution Systems 3. Smart Grids 4. Digital Control Systems	2	1	-	3	40	60	100
2	Open Elective-IV (MOOC)							
	1. Advanced Power Semiconductor Devices 2. Real Time Control of Power Systems 3. Power Plant Engineering 4. Biomedical Engineering	2	1	-	3	40	60	100
3	Main Project			8	7	80	120	200
	Total	4	2	8	13	160	240	400