

Electrical Engineering									
B.Tech. 2nd Year Course Structure									
3rd Semester									
Sl No	Type of Course	Course Code	Course Name	L	T	P	S	Total Contact Hours	Credit Points
Theory									
1	Basic Science Courses	BSM301	Mathematics-III	2	1	0		3	3
2	Professional Core Courses	PCCEE301	Electrical Circuit Analysis	3	1	0		4	3
3	Professional Core Courses	PCCEE302	Analog Electronics	3	1	0		4	3
4	Professional Core Courses	PCCEE303	Electromagnetic Field theory	3	1	0		4	4
5	Professional Core Courses	PCCEE304	Measurement and Instrumentation	3	1	0		4	3
6	Humanities and social sciences including Management	ESEP301	Essential Studies for Engineering Professionals III	2	0	0		2	2
PRACTICAL									
7	Professional Core Courses	PCCEE391	Electrical Circuit Analysis Laboratory	0	0	3		3	1
8	Professional Core Courses	PCCEE392	Analog Electronics Lab	0	0	3		3	1
9	Professional Core Courses	PCCEE393	Data Structure and Algorithm Lab	0	1	3		4	3
10	Professional Core Courses	PCCEE394	Measurement and Instrumentation Laboratory	0	0	3		3	1
SESSIONAL									
11	Humanities and social sciences including Management	MC301 (7-code)	Indian Constitution	0	0	0	2	2	0
12	Project, Seminar and Industrial Training	PWEE381	Mini Project I	0	0	0	1	1	1
Value Added Courses									
13	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
14	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						
15	Mandatory Additional Requirements (MAR)	MAR581	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				16	6	12	3	37	25

[Detailed Syllabus: 3rd Sem Link](#)

Electrical Engineering									
B.Tech. 2nd Year Course Structure									
4th Semester									
Sl No	Type of Course	Course Code	Course Name	L	T	P	S	Total Contact Hours	Credit Points
Theory									
1	Basic Science Courses	BSM401	Mathematics-IV	2	1	0		3	3
2	Professional Core Courses	PCCEE401	Electrical Machines-I	3	0	0		3	3
3	Professional Core Courses	PCCEE402	Digital Electronics	3	0	0		3	3
4	Professional Core Courses	PCCEE403	Power Electronics	3	0	0		3	3
5	Professional Core Courses	PCCEE404	Signals & Systems	3	0	0		3	3
6	Humanities and social sciences including Management	ESEP401	Essential Studies for Engineering Professionals IV	2	0	0		2	2
PRACTICAL									
7	Professional Core Courses	PCCEE491	Electrical Machines Laboratory-I	0	0	3		3	1
8	Professional Core Courses	PCCEE492	Digital Electronics Laboratory	0	0	3		3	1
9	Professional Core Courses	PCCEE493	Power Electronics Lab	0	0	3		3	1
SESSIONAL									
10	Open Elective Courses	OECEE481	A. Object Oriented Programming & Java Lab B. Programming using Python			2		2	1
11	Basic Science Courses	MCC471	Sustainability, Climate Actions & Environmental Sciences	2	0	0		0	2
12	Project, Seminar and Industrial Training	PWEE481	Mini Project II				1	1	1
Value Added Courses									
13	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
14	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						
15	Mandatory Additional Requirements (MAR)	MAR481	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				18	1	11	1	29	24

Electrical Engineering
B.Tech. 3rd Year Course Structure
5th Semester

Sl No	Type of Course	Course Code	Course Name	L	T	P	S	Total Contact Hours	Credit Points
Theory									
1	Professional Core Courses	PCCEE501	Electrical Machines-II	3	1	0		4	3
2	Professional Core Courses	PCCEE502	Power system-I	3	1	0		4	3
3	Professional Core Courses	PCCEE503	Control System	3	1	0		4	3
4	Professional Elective Courses	PECEE501	A. Building Cyber Physical Systems B. Industrial Electrical System C. Mechatronics	3	0	0		3	3
5	Open Elective Courses	OECEE501	A. Database Management System B. Analog and Digital Communication	2	0	0		2	2
6	Humanities and social sciences including Management	ESEP501	Essential Studies for Engineering Professionals V	2	0	0		2	2
PRACTICAL									
7	Professional Core Courses	PCCEE591	Electrical Machines Laboratory - II	0	0	3		3	1
8	Professional Core Courses	PCCEE592	Power System Laboratory - I	0	0	3		3	1
9	Professional Core Courses	PCCEE593	Control System Lab	0	0	3		3	1
SESSIONAL									
10	Humanities and social sciences including Management	HSMCEE571	Engineering Economics	3	0	0		3	3
11	Project. Seminar and Industrial Training	PWEE581	Mini Project III				1	1	1
Value Added Courses									
12	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
13	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						
14	Mandatory Additional Requirements (MAR)	MAR581	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				19	3	9	1	32	23

Electrical Engineering									
B.Tech. 3rd Year Course Structure									
6th Semester									
Sl No	Type of Course	Course Code	Course Name	L	T	P	S	Total Contact Hours	Credit Points
Theory									
1	Professional Core Courses	PCC-EE 601	Power System-II	3	1	0		4	3
2	Professional Core Courses	PCC-EE 602	Microprocessor & Microcontroller	3	0	0		3	3
4	Professional Elective Courses	PEC-EE 601	A. New and Renewable Energy B. Electric and Hybrid Vehicles	3	0	0		3	3
3	Professional Core Courses	PEC-EE 602	A. Automation and SCADA B. Semiconductor Design and Simulation	2	0	0		2	2
5	Open Elective Courses	OEC-EE 601	A. IoT B. AI & ML	2	0	0		2	2
6	Humanities and social sciences including Management	ESEP601	Essential Studies for Engineering Professionals VI	2	0	0		2	2
PRACTICAL									
7	Professional Core Courses	PCC-EE 691	Power System Laboratory - II	0	0	3		3	1
8	Professional Core Courses	PCC-EE 692	Microprocessor & Microcontroller Laboratory	0	0	3		3	1
9	Professional Elective Courses	PEC-EE 691	A. Wind and Solar Power Energy System Laboratory B. Electric and Hybrid Vehicles	0	0	3		3	1
10	Professional Core Courses	PEC-EE 692	A. Automation and SCADA LAB B. Semiconductor Design and Simulation Laboratory	0	0	3		3	1
SESSIONAL									
11	Humanities and social sciences including Management	SDP681	Skill Development for Professionals VI				2	2	0.5
12	Humanities and social sciences including Management	HSMCEE 671	Principles of Management	2	0	0		2	2
13	Project. Seminar and Industrial Training	PWEE681	Mini Project IV				1	1	1
Value Added Courses									
14	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
15	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						

16	Mandatory Additional Requirements (MAR)	MAR681	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				17	1	12	3	33	22.5

Electrical Engineering									
B.Tech. 4th Year Course Structure									
7th Semester									
Sl No	Type of Course	Course Code	Course Name	L	T	P	S	Total Contact Hours	Credit Points
Theory									
1	Professional Elective Courses	PEC-EE 701	A. Digital Signal Processing B. Digital Control System	3	0	0		3	3
2	Professional Elective Courses	PEC-EE 702	A. Industrial Drives B. Smart Grid Technologys	3	0	0		3	3
3	Open Elective Courses	OEC-EE 701	A. Embedded system B. VLSI Design	3	0	0		3	2
4	Open Elective Courses	OEC-EE 702	A. Operating Systems B. Computer Network	2	0	0		2	2
5	Humanities and social sciences including Management	ESEP701	Essential Studies for Engineering Professionals VII	2	0	0		2	2
SESSIONAL									
7	Project. Seminar and Industrial Training	INP781	INTERNSHIP				0	0	4
8	Project. Seminar and Industrial Training	PWEE781	Project I				6	6	3
Value Added Courses									
9	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
10	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						
11	Mandatory Additional Requirements (MAR)	MAR781	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				13	0	0	6	19	19

Electrical Engineering									
B.Tech. 4th Year Course Structure									
8th Semester									
Sl No	Type of Course	Course Code	Course Name	L	T	P	S	Total Contact Hours	Credit Points
Theory									
1	Professional Elective Courses	PEC-EE 801	A. DSP Based Control of Drives B. I.C. Technology C. Optimal Control Theory	3	0	0		3	3
2	Professional Elective Courses	PEC-EE 802	A. Power System Optimization B. Power quality & FACTS C. Power System Protection	3	0	0		3	3
3	Open Elective Courses	OEC-EE 801	A. Power Plant Engineering B. Automobile Engineering C. Sensors and Actuators	3	0	0		3	3
4	Humanities and social sciences including Management	HSMC-801	A. Human Resource Development & Organisational Behaviour B. Psychology	3	0	0		2	2
5	Humanities and social sciences including Management	ESEP801	Essential Studies for Engineering Professionals VIII	2	0	0		2	2
SESSIONAL									
7	Project. Seminar and Industrial Training	PWEE881	Project II				8	8	4
8	Project. Seminar and Industrial Training	INP881	INTERNSHIP					0	4
Value Added Courses									
9	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
10	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						
11	Mandatory Additional Requirements (MAR)	MAR881	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				14	0	0	8	21	21