

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	2	1	0		3	3
3	Professional Core Courses	PCCEE302	Analog Electronics	3	0	0		3	3
4	Professional Core Courses	PCCEE303	Electromagnetic Field theory	3	1	0		3	4
5	Humanities and social sciences including Management	MC301	Indian Constitution	2	0	0		2	0.5
6	Humanities and social sciences including Management	ESP301	Essential Studies for Professionals III	2	0	0		2	0.5
PRACTICAL									
7	Professional Core Courses	PCCEE391	Electrical Circuit Analysis Laboratory	0	0	2		2	1
8	Professional Core Courses	PCCEE392	Analog Electronics Lab	0	0	2		2	1
9	Professional Core Courses	PCCEE394	Data Structure and Algorithm Lab	0	2	2		2	3
SESSIONAL									
10	Humanities and social sciences including Management	SDP381	Skill Development for Professionals III				2	2	0.5
11	Project, Seminar and Industrial Training	PWEE381	Mini Project I				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				14	5	6	3	25	20.5

[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	Basic Science Courses	MCC471	Sustainability, Climate Actions & Environmental	2	0	0		0	2
3	Professional Core Courses	PCCEE401	Electrical Machines-I	3	0	0		3	3
4	Professional Core Courses	PCCEE402	Digital Electronics	3	0	0		3	3
5	Professional Core Courses	PCCEE403	Power Electronics	3	0	0		3	3
6	Professional Core Courses	PCCEE404	Signals & Systems	3	0	0		3	3
7	Humanities and social sciences including Management	ESP401	Essential Studies for Professionals IV	2	0	0		2	0.5
PRACTICAL									
8	Professional Core Courses	PCCEE491	Electrical Machines Laboratory-I	0	0	2		2	1
9	Professional Core Courses	PCCEE492	Digital Electronics Laboratory	0	0	2		2	1
10	Professional Core Courses	PCCEE493	Power Electronics Lab	0	0	2		2	1
SESSIONAL									
11	Open Elective Courses	OECEE481	A. Object Oriented Programming & Java Lab B. Programming using Python				2	2	1
12	Humanities and social sciences including Management	SDP481	Skill Development for Professionals IV				2	2	0.5
13	Project, Seminar and Industrial Training	PWEE481	Mini Project II				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)	MAR481	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				18	1	6	5	28	23

[Detailed Syllabus: 4th Sem Link](#)

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	Humanities and social sciences including Management	HSMCEE571	Engineering Economics	3	0	0		3	3

5	Professional Elective Courses	PECEE501	A. Electromagnetic Waves B. Industrial Electrical System	3	0	0		3	3
6	Open Elective Courses	OECEE501	A. Database Management System B. Analog and Digital Communication C. Industrial Automation- I	2	0	0		2	2
7	Humanities and social sciences including Management	ESPEE501	Essential Studies for Professionals V	2	0	0		2	0.5
PRACTICAL									
8	Professional Core Courses	PCCEE591	Electrical Machines Laboratory - II	0	0	3		2	1
9	Professional Core Courses	PCCEE592	Power System Laboratory - I	0	0	3		2	1
10	Professional Core Courses	PCCEE593	Control System Lab	0	0	3		2	1
SESSIONAL									
11	Humanities and social sciences including Management	SDP581	Skill Development for Professionals V				2	2	0.5
12	Project, Seminar and Industrial Training	PWEE581	Mini Project III				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				19	3	9	3	31	22

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 (Operation and Control)	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. Wind and Solar Power Energy System, B. Electric and Hybrid Vehicles	3	0	0		3	3
3	Professional Core Courses	PEC-EE 602	A. Measurement and Instrumentation B. Semiconductor Design and Simulation	2	0	0		2	2
5	Open Elective Courses	OEC-EE 601	A. IoT B. AI & ML C. Industrial Automation- II	2	0	0		2	2
6	Humanities and social sciences including Management	HSMCEE 671	Principles of Management	2	0	0		2	2
7	Humanities and social sciences including Management	ESPEE601	Essential Studies for Professionals VI	2	0	0		2	0.5
PRACTICAL									
8	Professional Core Courses	PCC-EE 691	Power System Laboratory - II	0	0	2		3	1
9	Professional Core Courses	PCC-EE 692	Microprocessor & Microcontroller Laboratory	0	0	2		3	1
11	Professional Elective Courses	PEC-EE 691	A. Wind and Solar Power Energy System Laboratory B. Electric and Hybrid Vehicles	0	0	2		3	1
10	Professional Core Courses	PEC-EE 692	A. Measurement and Instrumentation Laboratory B. Semiconductor Design and Simulation Laboratory	0	0	2		3	1
SESSIONAL									
12	Humanities and social sciences including Management	SDP 681	Skill Development for Professionals VI				2	2	0.5
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	8	3	33	21

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. Electric Drives B. Line Commuted and Active Rectifiers	3	0	0		3	3
3	Open Elective Courses	OEC-EE 701	A. Embedded system B. VLSI Circuits	3	0	0		3	2
4	Open Elective Courses	OEC-EE 702	A. Artificial Intelligence & Machine Learning B. Computer Network	2	0	0		2	2
5	Humanities and social sciences including Management	ESPEE 701	Essential Studies for Professionals VII	2	0	0		2	0.5
PRACTICAL									
6	Professional Core Courses	PCC-EE 791	Electronics Design Lab.	0	0	2		2	2
SESSIONAL									
7	Project, Seminar and Industrial Train	PW-EE 781	Seminar on Industrial Training				0	0	1
8	Humanities and social sciences including Management	HSMC 781	Skill Development for Professionals VII				2	2	0.5
9	Project, Seminar and Industrial Train	PWEE781	Project I				6	6	2
Value Added Courses									
10	Massive Open Online Courses (MOOCs)	MOOCs	Massive Open Online Courses (MOOCs)						
11	Industry and Foreign Certification (IFC)	IFC	Industry and Foreign Certification (IFC)						
12	Mandatory Additional Requirements (MAR)	MAR781	Mandatory Additional Requirements (MAR)						
Total Credit Points of Semester				13	0	2	8	23	16

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. Control System Design B. Electrical Energy Conservation and Audit C. Electrical Machine Design	3	0	0		3	3
2	Professional Elective Courses	PEC-EE 802	A. H.V.D.C. Transmission System 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 & Transducers	3	0	0		3	3
4	Humanities and social sciences including Management	HSMC-801	Human Resource Development & Organisational Behaviour	3	0	0		2	2
5	Humanities and social sciences including Management	ESP 801	Essential Studies for Professionals VIII	2	0	0		2	0.5
SESSIONAL									
6	Humanities and social sciences including Management	ESP 881	Skill Development for Professionals VIII				2	2	0.5
7	Project, Seminar and Industrial Training	PWEE881	Project II				8	8	4
8	Project, Seminar and Industrial Training	GVEE881	Grand Viva					0	2
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	10	23	18