

***Revised Curriculum Structure
(to be effective from 2016-17 admission batch)***

Department: Electrical Engineering

Curriculum for B.Tech. Under Autonomy

1st Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	BS	M 101	Mathematics – I	3	1	0	4	4
2	BS	CH 101	Chemistry – I	3	1	0	4	4
3	ES	EE 101	Basic Electrical Engineering	3	1	0	4	4
4	HS	HU 101	Communicative English	2	0	0	2	2
5	ES	ME 101	Engineering Mechanics	3	1	0	4	4
Total of Theory							18	18
B. PRACTICAL								
6	HS	HU 191	Language Laboratory and Seminar Presentation	0	0	2	2	1
7	BS	CH 191	Chemistry – I Laboratory	0	0	3	3	2
8	ES	EE 191	Basic Electrical Engineering Laboratory	0	0	3	3	2
9	ES	ME 191	Engineering Drawing and Graphics	0	0	3	3	2
Total of Practical							11	07
C. SESSIONAL								
10	HS	XC 181	Extra-Curricular Activity (NSS / NCC)	0	0	2	2	1
Total of Theory, Practical and Sessional							31	26

2nd Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	BS	M 201	Mathematics – II	3	1	0	4	4
2	BS	PH 201	Physics – I	3	1	0	4	4
3	ES	EC 201	Basic Electronics Engineering	3	1	0	4	4
4	ES	CS 201	Computer Fundamentals and Principle of Computer Programming	3	1	0	4	4
5	ES	ME 201	Engineering Thermodynamics and Fluid Mechanics	3	1	0	4	4
Total of Theory							20	20
B. PRACTICAL								
6	ES	CS 291	Computer Fundamentals and Principle of Computer Programming Laboratory	0	0	3	3	2
7	BS	PH 291	Physics – I Laboratory	0	0	3	3	2
8	ES	EC 291	Basic Electronics Engineering Laboratory	0	0	3	3	2
9	ES	ME 292	Workshop Practice	0	0	3	3	2
Total of Practical							12	08
C. SESSIONAL								
10	MC	MC 281	Soft Skill Development	0	0	2	2	0
Total of Theory, Practical and Sessional							34	28

3rd Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	BS	M 301	Mathematics – III	3	1	0	4	4
2	PC	EC(EE) 301	Digital Electronics	3	1	0	4	3
3	PC	EC(EE) 302	Analog Electronic Circuits	3	0	0	3	3
4	PC	EE 301	Circuits Theory and Networks	3	1	0	4	4
5	PC	EE 302	Field Theory	3	0	0	3	3
6	ES	ME(EE) 301	Thermal Power Engineering	2	0	0	2	2
Total of Theory							20	19
B. PRACTICAL								
7	PC	EC(EE) 391	Analog and Digital Electronics Laboratory	0	0	3	3	2
8	PC	EE 391	Circuit Theory and Network Laboratory	0	0	3	3	2
9	ES	ME(EE) 391	Thermal Power Engineering Laboratory	0	0	2	2	1
10	HS	HU 381	Technical Report Writing and Language Practice	0	0	2	2	1
Total of Practical							10	06
Total of Theory, Practical and Sessional							30	25

4th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	BS	PH(EE) 401	Physics – II	3	0	0	3	3
2	PC	EE 401	Electrical Machines – I	3	1	0	4	4
3	PC	EE 402	Electrical and Electronics Measurement	3	0	0	3	3
4	BS	M(CS) 401	Numerical Methods	3	0	0	3	2
5	ES	CS(EE) 402	Data Structure	3	0	0	3	2
Total of Theory							16	14
B. PRACTICAL								
6	BS	PH(EE) 491	Physics – II Laboratory	0	0	3	3	2
7	PC	EE 491	Electrical Machines – I Laboratory	0	0	3	3	2
8	PC	EE 492	Electrical and Electronics Measurement Laboratory	0	0	3	3	2
9	BS	M(CS) 491	Numerical Methods Laboratory	0	0	2	2	1
10	ES	CS(EE) 492	Data Structure Laboratory	0	0	2	2	1
Total of Practical							11	08
C. SESSIONAL								
11	MC	MC 481	Technical Skill Development	0	0	2	2	0 (2 Units)
Total of Theory, Practical and Sessional							27	22

Note: Numerical Methods and Computer Programming Lab [CS(EE) 491], and Technical Report Writing and Language Laboratory Practice [HU(EE) 481] together, will be treated as one laboratory.

5th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	HS	HU 501	Environmental Science	2	0	0	2	2
2	PC	EE 501	Electric Machine – II	3	1	0	4	4
3	PC	EE 502	Power Systems – I	3	1	0	4	4
4	PC	EE 503	Control Systems – I	3	1	0	4	4
5	PC	EE 504	Microprocessor and Microcontroller	3	0	0	3	3
Total of Theory							17	17
B. PRACTICAL								
6	PC	EE 591	Electric Machine – II Laboratory	0	0	3	3	2
7	PC	EE 592	Power Systems – I Laboratory	0	0	3	3	2
8	PC	EE 593	Control System – I Laboratory	0	0	3	3	2
9	PC	EE 594	Microprocessor and Microcontroller Laboratory	0	0	3	3	2
10	PW	EE581	Electrical System Design – I	0	1	3	4	2
Total of Practical							16	10
C. SESSIONAL								
11	MC	MC 581	Group Discussion and Seminar	0	0	2	2	0 (2 Units)
Total of Theory, Practical and Sessional							35	27

6th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	PC	EE 601	Control System II	3	0	0	3	3
2	PC	EE 602	Power System II	3	0	0	3	3
3	PC	EE 603	Power Electronics	3	0	0	3	3
4	PC	EC(EE) 604	Digital Signal Processing*	3	0	0	3	3
5	PE	EE 605	A. Non-conventional Energy Sources and Applications B. Computational Intelligence C. Introduction to Robotics D. Mechatronics	3	1	0	4	4
6	OE	CS(EE) 606	A. Introduction to Programming in JAVA B. Object Oriented Programming using C++ C. Computer Architecture and Operating Systems D. Software Engineering	3	0	0	3	3
Total of Theory							19	19
B. PRACTICAL								
7	PC	EE 691	Control System II Laboratory	0	0	3	3	2
8	PC	EE 692	Power System II Laboratory	0	0	3	3	2
9	PC	EE 693	Power Electronics Laboratory	0	0	3	3	2
10	OE	CS(EE) 696	A. Introduction to Programming in JAVA Laboratory B. Object Oriented Programming using C++ Laboratory C. Computer Architecture and Operating Systems Laboratory D. Software Engineering Laboratory	0	0	2	2	1
11	PW	EE 681	Electrical System Design II	0	1	3	4	2
12	PW	EE 671	Industrial Training	4 Weeks				2
Total of Practical							15	11
Total of Theory, Practical and Sessional							34	30

* As per recommendations of External Expert, the course has been changed from PE to PC.

7th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	HS	HU 702	Values and Ethics in Profession	2	0	0	2	2
2	PC	EE 701	Electric Drives	3	0	0	3	3
3	PE	EE 702	A. Utilization of Electric Power B. Advanced Power Electronics C. Illumination Engineering	3	1	0	4	4
4	PE	EE 703	A. Advanced Power Systems B. Power Generation and Economics C. High Voltage Engineering D. Advanced Electrical Measurement and Instrumentation	3	1	0	4	4
5	OE	CS(EE) 705	A. Artificial Intelligence and Soft Computing B. Digital Image Processing C. Computer Networking D. Data Base Management System	3	0	0	3	3
Total of Theory							16	16
B. PRACTICAL								
7	PC	EE 791	Electric Drives Laboratory	0	0	3	3	2
8	OE	CS(EE) 795	A. Artificial Intelligence and Soft Computing Laboratory B. Digital Image Processing Laboratory C. Computer Networking Laboratory D. Data Base Management System Laboratory	0	0	2	2	1
9	PW	EE 781	Assigned Project – I	0	0	6	6	4
10	PW	EE 771	Seminar on Industrial Training and Report	0	0	0	0	1
Total of Practical							11	08
C. SESSIONAL								
11	MC	MC 781	Entrepreneurship Development	0	0	0	2	0 (2 Units)
Total of Theory, Practical and Sessional							29	24

8th Semester								
Sl. No.	Category	Paper Code	Subject	Contact Hours/Week				Credit Points
				L	T	P	Total	
A. THEORY								
1	HS	HU 805	Industrial and Financial Management	2	0	0	2	2
2	PE	EE 801	A. HVDC Transmission B. Energy Management and Audit C. Power Plant Engineering	3	0	0	3	3
3	PE	EE 802	A. Sensors and Transducers B. Process Control and Instrumentation C. Electronic Instrumentation and Control	3	1	0	4	4
Total of Theory							09	09
B. PRACTICAL								
7	PW	EE 881	Project and Thesis	0	0	12	12	6
8	PW	EE 871	Grand Viva	0	0	0	0	3
Total of Practical							12	09
Total of Theory, Practical and Sessional							21	18

EE Curriculum Credit Details

Subject Area	Year wise Break up of credits				Total	Credits in %	AICTE Norms
	1st year	2nd year	3rd year	4th year			
BS	20	12	0	0	32	16	(10-20)%
ES	30	6	0	0	36	18	(15-20)%
HS	4	1	2	4	11	5.5	(5-10)%
PC	0	28	41	5	74	37	(30-40)%
PE	0	0	4	15	19	9.5	(10-15)%
OE	0	0	4	4	8	4	(5-10)%
PW	0	0	6	14	20	10	(10-15)%
Total	54	51	53	40	200		