

7. Graduation Requirements

Year-wise Graduation Requirement

Batch 2024, B.Tech. (Electrical Engg.)

GRADUATION REQUIREMENT FOR B.TECH. (REGULAR) ELECTRICAL ENGINEERING

Batch-2024

Sl. No.	Course No.	Course Title	Credit/ Contact Hours	Pre- requisite
Basic Sciences and Other Department courses				
1.	BPP-198	Semiconductor Physics	5(3-1-2)/6	Nil
2.	BPM-142	Calculus and Differential Equations	5(4-1-0)/5	Nil
3.	BPC-102	Chemistry-I	4 (3-0-2) /5	Nil
4.	TIP-103	Workshop Practices	3(1-0-2x2)/5	Nil
5.	TID/ TSW/ TCE/TME- 109	Introduction to Environmental Engineering and Disaster Management	3(3-0-0)/3	Nil
6.	TCE-114	Engineering Graphics and Design	3(1-0-4)/5	Nil
7.	TIT-121	Programming for Problem Solving	4(3-0-2) /5	Nil
8.	BHS-186	English	3(2-0-2)/4	Nil
9.	BHS-188	Industrial Sociology	3(3-0-0)/3	Nil
10.	TIC-100	Induction Programme	2 Weeks	Nil
11.	TEE-104	Basic Electrical Engineering	5(3-1-2)/6	Nil
12.	BPM-152	Linear Algebra, Transform Calculus and Numerical Methods	4(3-1-0)/4	Nil
13.	TCT-202	Digital Electronics	4(3-0-2)/5	Nil
14.	TME-201	Engineering Mechanics	4(3-1-0)/4	Nil
15.	TEC-209	Signals and Systems	4(3-1-0)/4	Nil
16.	BPS-228	Probability and Statistics	4(3-1-0)/4	Nil
17.	BHS-286	Effective Technical Communication	3(3-0-0)/3	Nil
18.	BHS-387	Soft Skills	3(3-0-0)/3	Nil
19.	TEC-304	Analog and Digital Communication	3(3-0-0)/3	Nil
Professional Courses				
20.	TEE-201	Electrical Circuit Analysis	4(3-1-0)/4	Nil
21.	TEE-202	Analog Electronics	4(3-0-2)/5	Nil
22.	TEE-203	Measurements and Instrumentation	3(2-0-2)/4	Nil
23.	TEE-206	Electrical Machines I	3(2-1-0)/3	Nil
24.	TEE-207	Electromagnetic Fields	4(3-1-0)/4	Nil
25.	TEE-208	Microprocessors	4(3-0-2)/5	Nil
26.	TEE-209	Network Analysis and Synthesis	3(2-1-0)/3	Nil
27.	TEE-311	Power Electronics	4(3-0-2)/5	Nil
28.	TEE-312	Electrical machines II	4(2-1-2)/5	Nil
29.	TEE-314	Power Systems I	3(2-1-0)/3	Nil
30.	TEE-315	Electrical Materials	3(3-0-0)/3	Nil
31.	TEE-316	Control System I	4(3-0-2)/5	Nil
32.	TEE-317	Software Tools for Electrical Engineering Application	1(0-0-2)/2	Nil
33.	TEE-318	Power Systems II	3(3-0-0)/3	Nil

34.	TEE-319	Electrical machines III	5(3-1-2)/6	Nil
35.	TEE-320	Control System II	2(2-0-0)/2	Nil
36.	TEE-410	Power System III	4(3-0-2)/5	Nil
37.	TEE-411	Renewable Energy Systems	3(3-0-0)/3	Nil
38.	TEE*-	Programme Elective 1 /MOOC-1	3 Credit	Nil
39.	TEE-	Programme Elective 2	3 Credit	Nil
40.	TEE-	Programme Elective 3	3 Credit	Nil
41.	TEE-	Programme Elective 4	3 Credit	Nil
42.	TEE-	Programme Elective 5	3 Credit	Nil
43.	TEE-	Programme Elective 6	3 Credit	Nil
44.		Open Elective 1**/MOOC-2	3 Credit	Nil
45.		Open Elective 2	3 Credit	Nil
46.		Open Elective 3	3 Credit	Nil
47.		Open Elective 4	3 Credit	Nil
Internship/ Seminar/ Projects and others				
48.	TEE-191	Practical Training I	02 Weeks	Nil
49.	TEE-291	Practical Training II	02 Weeks	Nil
50.	TEE-391	Practical Training III	04 Weeks	Nil
51.	TEE-494	Seminar	1(0-0-2)/2	Nil
52.	TEE-495A	Project I	4(0-0-4x2)/8	Nil
53.	TEE-495B	Project II	8(0-0-8x2)/16	Nil
54.	TWP-101	Work Programme	1(0-0-3)/3	Nil
55.	NSS-201/ NCC-201	N.S.S. / N.C.C.	0(0-0-4)	Nil
56.	NSS-202/ NCC-202	N.S.S. / N.C.C.	1(0-0-4)	Nil
57.	NSS-301/ NCC-301	N.S.S. / N.C.C.	0 (0-0-4)	Nil
58.	NSS-302/ NCC-302	N.S.S. / N.C.C.	1 (0-0-4)	Nil
		Total Credits	174	

Note: Those students who have not taken Hindi at the High School or equivalent level will also require to Register the course BHS-173 Elementary Hindi – 2 Credits

**PROPOSED GRADUATION REQUIREMENT FOR B.TECH. (REGULAR) ELECTRICAL
ENGINEERING
Batch-2024
Semester Wise Distribution**

First Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	BPP-198	Semiconductor Physics	5(3-1-2)/6	Nil
2.	BPM-142	Calculus and Differential Equations	5(4-1-0)/5	Nil
3.	TCE-114	Engineering Graphics and Design	3(1-0-4)/5	Nil
4.	TID/ TSW/ TCE/TME-109	Introduction to Environmental Engineering and Disaster Management	3(3-0-0)/3	Nil
5.	BHS-186	English	3(2-0-2)/4	Nil
6.	TIP-103	Workshop Practices	3(1-0-2x2)/5	Nil
7.	TIC-100	Induction Programme (2 Weeks)		Nil
II Semester				
1.	BPC-102	Chemistry I	4(3-0-2) /5	Nil
2.	BPM-152	Linear Algebra, Transform Calculus & Num. Methods	4(3-1-0)/4	Nil
3.	TEE-104	Basic Electrical Engineering	5(3-1-2) /6	Nil
4.	BHS-188	Industrial Sociology	3(3-0-0)/3	Nil
5.	TIT-121	Programming for Problem Solving	4(3-0-2) /5	Nil
6.	TWP-101	Work Programme	1(0-0-3)/3	Nil
7.	TEE-191	Practical Training I	02 Weeks	Nil
	Total Credits		22+21=43	

Second Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	TEE-201	Electrical Circuit Analysis	4(3-1-0)/4	Nil
2.	TEE-203	Measurements and Instrumentation	3(2-0-2)/4	Nil
3.	TEE-207	Electromagnetic Fields	4(3-1-0)/4	Nil
4.	TME-201	Engineering Mechanics	4(3-1-0)/4	Nil
5.	TEC-209	Signals and Systems	4(3-1-0)/4	Nil
6.	BHS-286	Effective Technical Communication	3(3-0-0)/3	Nil
7.	NSS-201/ NCC-201	N.S.S. / N. C. C.	0(0-0-4)	Nil
II Semester				
1.	TEE-202	Analog Electronics	4(3-0-2)/5	Nil
2.	TCT-202	Digital Electronics	4(3-0-2)/5	Nil
3.	TEE-206	Electrical Machines I	3(2-1-0)/3	Nil
4.	TEE-208	Microprocessors	4(3-0-2)/5	Nil
5.	TEE-209	Network Analysis and Synthesis	3(2-1-0)/3	Nil
6.	TEE-317	Software Tools for Electrical Engg Application	1(0-0-2)/2	Nil
7.	BHS-387	Soft Skills	3(3-0-0)/3	Nil
8.	NSS-202/ NCC-202	N.S.S. / N. C. C.	1(0-0-4)	Nil
9.	TEE-291	Practical Training II	02 Weeks	Nil

Total Credits	22+23=45
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Third Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	TEE-314	Power Systems I	3(2-1-0)/3	Nil
2.	TEE-316	Control System I	4(3-0-2)/5	Nil
3.	TEE-311	Power Electronics	4(3-0-2)/5	Nil
4.	TEE-312	Electrical Machines II	4(2-1-2)/5	Nil
5.	TEE-315	Elect. Materials	3(3-0-0)/3	Nil
6.	BPS-228	Probability and Statistics	4(3-1-0)/4	Nil
7.	NSS-301/ NCC-301	N.S.S./ N.C.C.	0(0-0-4)	Nil
II Semester				
1.	TEE-318	Power Systems II	3(3-0-0)/3	Nil
2.	TEC-304	Analog and Digital Communication	3(3-0-0)/3	Nil
3.	TEE-319	Electrical Machines III	5(3-1-2)/6	Nil
4.		Open Elective 1	3 Credit	Nil
5.	TEE-	Programme Elective 1	3 Credit	Nil
6.	TEE-	Programme Elective 2	3 Credit	Nil
7.	TEE-320	Control System II	2(2-0-0)/2	Nil
8.	NSS-302/ NCC-302	N.S.S./ N.C.C.	1(0-0-4)	Nil
9.	TEE-391	Practical Training III	04 Weeks	Nil
	Total Credits		22+23=45	

Fourth Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	TEE-	Programme Elective 3	3 Credit	Nil
2.	TEE-	Programme Elective 4	3 Credit	Nil
3.	TEE-411	Renewable Energy Systems	3(3-0-0)/3	Nil
4.	TEE-410	Power System III	4(3-0-2)/5	Nil
5.	TEE-495A	Project Stage I	4(0-0-4x2)/8	Nil
6.		Open Elective 2	3 Credit	Nil
7.	TEE-494	Seminar	1(0-0-2)/2	Nil
II Semester				
1.	TEE-	Programme Elective 5	3 Credit	Nil
2.	TEE-	Programme Elective 6	3 Credit	Nil
3.		Open Elective 3	3 Credit	Nil
4.		Open Elective 4	3 Credit	Nil
5.	TEE-495B	Project Stage II	8(0-0-8x2)/16	Nil
	Total Credits		21+20=41	

TOTAL CREDITS = 174

Note: Those students who have not taken Hindi at the High School or equivalent level will also require to Register the course BHS-173 Elementary Hindi – 2 Credit

**PROPOSED GRADUATION REQUIREMENT FOR B.TECH. (LATERAL ENTRY) ELECTRICAL
ENGINEERING
Batch-2024**

Sl. No.	Course No.	Course Title	Credit/ Contact Hours	Pre- requisite
Basic Sciences and Other Department Courses				
1.	TCT-202	Digital Electronics	4(3-0-2)/5	Nil
2.	TME-201	Engineering Mechanics	4(3-1-0)/4	Nil
3.	TEC-209	Signals and Systems	4(3-1-0)/4	Nil
4.	BPS-228	Probability and Statistics	4(3-1-0)/4	Nil
5.	BHS-286	Effective Technical Communication	3(3-0-0)/3	Nil
6.	BHS-387	Soft Skills	3(3-0-0)/3	Nil
7.	TEC-304	Analog and Digital Communication	3(3-0-0)/3	Nil
Professional Courses				
8.	TEE-201	Electrical Circuit Analysis	4(3-1-0)/4	Nil
9.	TEE-202	Analog Electronics	4(3-0-2)/5	Nil
10.	TEE-203	Measurements and Instrumentation	3(2-0-2)/4	Nil
11.	TEE-206	Electrical Machines I	3(2-1-0)/3	Nil
12.	TEE-207	Electromagnetic Fields	4(3-1-0)/4	Nil
13.	TEE-208	Microprocessors	4(3-0-2)/5	Nil
14.	TEE-209	Network Analysis and Synthesis	3(2-1-0)/3	Nil
15.	TEE-311	Power Electronics	4(3-0-2)/5	Nil
16.	TEE-312	Electrical Machines II	4(2-1-2)/5	Nil
17.	TEE-314	Power Systems I	3(2-1-0)/3	Nil
18.	TEE-315	Electrical Materials	3(3-0-0)/3	Nil
19.	TEE-316	Control System I	4(3-0-2)/5	Nil
20.	TEE-317	Software Tools for Electrical Engineering Application	1(0-0-2)/2	Nil
21.	TEE-318	Power Systems II	3(3-0-0)/3	Nil
22.	TEE-319	Electrical Machines III	5(3-1-2)/6	Nil
23.	TEE-320	Control System II	2(2-0-0)/2	Nil
24.	TEE-410	Power System III	4(3-0-2)/5	Nil
25.	TEE-411	Renewable Energy Systems	3(3-0-0)/3	Nil
26.	TEE-	Programme Elective 1	3 Credit	Nil
27.	TEE-	Programme Elective 2	3 Credit	Nil
28.	TEE-	Programme Elective 3	3 Credit	Nil
29.	TEE-	Programme Elective 4	3 Credit	Nil
30.	TEE-	Programme Elective 5	3 Credit	Nil
31.	TEE-	Programme Elective 6	3 Credit	Nil
32.		Open Elective 1	3 Credit	Nil
33.		Open Elective 2	3 Credit	Nil
34.		Open Elective 3	3 Credit	Nil
35.		Open Elective 4	3 Credit	Nil
Internship/ Seminar/ Projects and Others				
36.	TEE-291	Practical Training II	02 Weeks	Nil
37.	TEE-391	Practical Training III	04 Weeks	Nil
38.	TEE-494	Seminar	1(0-0-2)/2	Nil
39.	TEE-495A	Project I	4(0-0-4x2)/8	Nil

40.	TEE-495B	Project II	8(0-0-8x2)/16	Nil
41.	TWP-101	Work Programme	1(0-0-3)/3	Nil
42.	NSS-201/ NCC-201	N.S.S. / N.C.C.	0 (0-0-4)	Nil
43.	NSS-202/ NCC-202	N.S.S. / N.C.C.	1(0-0-4)	Nil
44.	NSS-301/ NCC-301	N.S.S. / N.C.C.	0 (0-0-4)	Nil
45.	NSS-302/ NCC- 302	N.S.S. / N.C.C.	1 (0-0-4)	Nil
		Total Credits	132	

Note: Those students who have not taken Hindi at the High School or equivalent level will also require to Register the course BHS-173 Elementary Hindi – 2 Credit

PROPOSED GRADUATION REQUIREMENT FOR B.TECH. (LATERAL ENTRY) ELECTRICAL ENGINEERING
Batch-2024

Semester Wise Distribution

First Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	TEE-201	Electrical Circuit Analysis	4(3-1-0)/4	Nil
2.	TEE-203	Measurements and Instrumentation	3(2-0-2)/4	Nil
3.	TEE-207	Electromagnetic Fields	4(3-1-0)/4	Nil
4.	TME-201	Engineering Mechanics	4(3-1-0)/4	Nil
5.	TEC-209	Signals and Systems	4(3-1-0)/4	Nil
6.	BHS-286	Effective Technical Communication	3(3-0-0)/3	Nil
7.	TWP-101	Work Programme	1(0-0-3)/3	Nil
8.	NSS-201	N.S.S.	0(0-0-4)	Nil
II Semester				
1.	TEE-202	Analog Electronics	4(3-0-2)/5	Nil
2.	TCT-202	Digital Electronics	4(3-0-2)/5	Nil
3.	TEE-206	Electrical Machines I	3(2-1-0)/3	Nil
4.	TEE-208	Microprocessors	4(3-0-2)/5	Nil
5.	TEE-209	Network Analysis and Synthesis	3(2-1-0)/3	Nil
6.	TEE-317	Software Tools for Electrical Engg Application	1(0-0-2)/2	Nil
7.	BHS-387	Soft Skills	3(3-0-0)/3	Nil
8.	NSS-202	N.S.S.	1(0-0-4)	Nil
9.	TEE-291	Practical Training II	02 Weeks	Nil
	Total Credits		23+23=46	

Second Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	TEE-314	Power Systems I	3(2-1-0)/3	Nil
2.	TEE-316	Control System I	4(3-0-2)/5	Nil
3.	TEE-311	Power Electronics	4(3-0-2)/5	Nil
4.	TEE-312	Electrical Machines II	4(2-1-2)/5	Nil
5.	TEE-315	Elect. Materials	3(3-0-0)/3	Nil
6.	BPS-228	Probability and Statistics	4(3-1-0)/4	Nil
7.	NSS-301	N.S.S.	0(0-0-4)	Nil
II Semester				
1.	TEE-318	Power Systems II	3(3-0-0)/3	Nil
2.	TEC-304	Analog and Digital Communication	3(3-0-0)/3	Nil
3.	TEE-319	Electrical Machines III	5(3-1-2)/6	Nil
4.		Open Elective 1	3 Credit	Nil
5.	TEE-	Programme Elective 1	3 Credit	Nil
6.	TEE-	Programme Elective 2	3 Credit	Nil
7.	TEE-320	Control System II	2(2-0-0)/2	Nil
8.	NSS-302	N.S.S.	1(0-0-4)	Nil
9.	TEE-391	Practical Training III	04 Weeks	Nil
	Total Credits		22+23=45	

Third Year:

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
I Semester				
1.	TEE-	Programme Elective 3	3 Credit	Nil
2.	TEE-	Programme Elective 4	3 Credit	Nil
3.	TEE-411	Renewable Energy Systems	3(3-0-0)/3	Nil
4.	TEE-410	Power System III	4(3-0-2)/5	Nil
5.	TEE-495A	Project Stage I	4(0-0-4x2)/8	Nil
6.		Open Elective 2	3 Credit	Nil
7.	TEE-494	Seminar	1(0-0-2)/2	Nil
II Semester				
1.	TEE-	Programme Elective 5	3 Credit	Nil
2.	TEE-	Programme Elective 6	3 Credit	Nil
3.		Open Elective 3	3 Credit	Nil
4.		Open Elective 4	3 Credit	Nil
5.	TEE-495 B	Project Stage II	8(0-0-8x2)/16	Nil
	Total Credits		21+20=41	

TOTAL CREDITS = 132

Note: Those students who have not taken Hindi at the High School or equivalent level will also require to Register the course BHS-173 Elementary Hindi – 2 Credit

ELECTIVE COURSES

Sl. No.	Course No.	Course Title	L-T-P	Credits
1	TEE-401	Soft Computing and Its Engineering Applications	3-0-0	3
2	TEE-402	Renewable Energy: Concepts and Practices	3-0-0	3
3	TEE-403	Utilization of Electrical Energy,	3-0-0	3
4	TEE-404	Concepts of Electrical Power System	3-0-0	3
5	TEE-429	Electrical Drives	2-1-0	3
6	TEE-430	Digital Control System	3-0-0	3
7	TEE-440	Line Commutated and Active Rectifiers	3-0-0	3
8	TEE-442	Artificial Neural Networks and Fuzzy Systems for Electrical Engineers	2-0-2	3
9	TEE-443	Power Quality & FACTS	3-0-0	3
10	TEE-444	Electrical Machine Design	3-0-0	3
11	TEE-445	Power System Protection	3-0-0	3
12	TEE-446	HVDC Transmission Systems	3-0-0	3
13	TEE-447	Electrical Energy Conservation and Auditing	3-0-0	3
14	TEE-448	Industrial Electrical Systems	3-0-0	3
15	TEE-449	Power System Dynamics and Control	3-0-0	3
16	TEE-450	High Voltage Engineering	3-0-0	3
17	TEE-451	Advance Electric Drives	3-0-0	3
18	TEE-452	Digital Signal Processing	3-0-0	3
19	TEE-453	Electrical and Hybrid Vehicles	3-0-0	3
20	TEE-454	Electromagnetic waves	3-0-0	3

Note: Elective Courses at Sl. No. 1 to 4 are for students of other branches except Electrical Engineering.

Rules for MOOC-1 /MOOC-2 Courses:

1. A student can opt to offer at the most 02 MOOC courses in the third year of his/her B. Tech. degree program; one in lieu of Program Elective and the other in lieu of Open Elective.
2. The credit load of the MOOC courses will not be considered to calculate maximum credit load in a semester.
3. The MOOC 1 course under the category Program Elective of credits equal to the credits of program elective shall be taken from the list of MOOC courses available on SWAYAM/ NPTEL at the time of registration in the concerned semester, as notified by the concerned department.
4. Similarly, the MOOC 2 course under the category Open Elective of credits equal to the credits of open elective shall be taken from the list of MOOC courses available on SWAYAM/ NPTEL at the time of registration in the concerned semester in the department other than their parent department, as notified by that department.
5. All the expenditure including the fee for examination or passing certificate shall be borne by the student.
6. Grades will be submitted on producing the passing certificate to the faculty designated by the department.
7. The passing marks for the MOOC courses shall be at par with passing marks as per university academic regulation i.e. 50%.
8. In case a student fails to pass the MOOC course as per minimum passing marks criteria of university, he /she shall have to either repeat the same course or offer any other course of the same credits from the list of courses notified by the department in subsequent semester/ year.

Batch - 2018, B.tech. (Electrical Engineering)

Sl. No.	Course No.	Course Title	Credit/ Contact Hours	Pre- requisite
Basic Sciences and Other Department courses				
1.	BPP-198	Semiconductor Physics	5(3-1-2)/6	Nil
2.	BPM-142	Calculus and Differential Equations	5(4-1-0)/5	Nil
3.	BPC-102	Chemistry-I	4 (3-0-2) /5	Nil
4.	TIP-103	Workshop Practices	3(1-0-2x2)/5	Nil
5.	TID/ TSW/ TCE/TME-109	Introduction to Environmental Engineering and Disaster Management	3(3-0-0)/3	Nil
6.	TCE-114	Engineering Graphics and Design	3(1-0-4)/5	Nil
7.	TIT-121	Programming for Problem Solving	4(3-0-2) /5	Nil
8.	BHS-186	English	3(2-0-2)/4	Nil
9.	BHS-188	Industrial Sociology	3(3-0-0)/3	Nil
10.	TIC-100	Induction Programme	2 Weeks	Nil
11.	TEE-104	Basic Electrical Engineering	5(3-1-2)/6	Nil
12.	BPM-152	Linear Algebra, Transform Calculus and Numerical Methods	4(3-1-0)/4	Nil
13.	TCT-202	Digital Electronics	4(3-0-2)/5	Nil
14.	TME-201	Engineering Mechanics	4(3-1-0)/4	Nil
15.	TEC-209	Signals and Systems	4(3-1-0)/4	Nil
16.	BPS-228	Probability and Statistics	4(3-1-0)/4	Nil
17.	BHS-286	Effective Technical Communication	3(3-0-0)/3	Nil
18.	BHS-387	Soft Skills	3(3-0-0)/3	Nil
19.	TEC-304	Analog and Digital Communication	3(3-0-0)/3	Nil
Professional Courses				
20.	TEE-201	Electrical Circuit Analysis	4(3-1-0)/4	Nil
21.	TEE-202	Analog Electronics	4(3-0-2)/5	Nil
22.	TEE-203	Measurements and Instrumentation	3(2-0-2)/4	Nil

23.	TEE-206	Electrical Machines I	3(2-1-0)/3	Nil
24.	TEE-207	Electromagnetic Fields	4(3-1-0)/4	Nil
25.	TEE-208	Microprocessors	4(3-0-2)/5	Nil
26.	TEE-209	Network Analysis and Synthesis	3(2-1-0)/3	Nil
27.	TEE-311	Power Electronics	4(3-0-2)/5	Nil
28.	TEE-312	Electrical machines II	4(2-1-2)/5	Nil
29.	TEE-314	Power Systems I	3(2-1-0)/3	Nil
30.	TEE-315	Electrical Materials	3(3-0-0)/3	Nil
31.	TEE-316	Control System I	4(3-0-2)/5	Nil
32.	TEE-317	Software Tools for Electrical Engineering Application	1(0-0-2)/2	Nil
33.	TEE-318	Power Systems II	3(3-0-0)/3	Nil
34.	TEE-319	Electrical machines III	5(3-1-2)/6	Nil
35.	TEE-320	Control System II	2(2-0-0)/2	Nil
36.	TEE-410	Power System III	4(3-0-2)/5	Nil
37.	TEE-411	Renewable Energy Systems	3(3-0-0)/3	Nil
38.	TEE-	Programme Elective 1	3 Credit	Nil
39.	TEE-	Programme Elective 2	3 Credit	Nil
40.	TEE-	Programme Elective 3	3 Credit	Nil
41.	TEE-	Programme Elective 4	3 Credit	Nil
42.	TEE-	Programme Elective 5	3 Credit	Nil
43.	TEE-	Programme Elective 6	3 Credit	Nil
44.		Open Elective 1	3 Credit	Nil
45.		Open Elective 2	3 Credit	Nil
46.		Open Elective 3	3 Credit	Nil
47.		Open Elective 4	3 Credit	Nil
Internship/ Seminar/ Projects and others.				
48.	TEE-191	Practical Training I	02 Weeks	Nil
49.	TEE-291	Practical Training II	02 Weeks	Nil
50.	TEE-391	Practical Training III	04 Weeks	Nil
51.	TEE-494	Seminar	1(0-0-2)/2	Nil
52.	TEE-495A	Project I	4(0-0-4x2)/8	Nil
53.	TEE-495B	Project II	8(0-0-8x2)/16	Nil
54.	TWP-101	Work Programme	1(0-0-3)/3	Nil
55.	NSS-201	N.S.S.	0 (0-0-4)	Nil
56.	NSS-202	N.S.S.	1 (0-0-4)	Nil
57.	NSS-301	N.S.S.	0 (0-0-4)	Nil
58.	NSS-302	N.S.S.	1 (0-0-4)	Nil
		Total Credits	173	

Note: Those students who have not taken Hindi at the High School or equivalent level will also require registering the course BHS-173 Elementary Hindi – 2 Credit

Graduation Requirement (Electrical Engineering) Batch-2018 Semester Wise Distribution

First Year:

I Semester				
Sl. No.	Course No.	Course Title	Credit/ Contact Hours	Pre-requisite
1.	BPP-198	Semiconductor Physics	5(3-1-2)/6	Nil
2.	BPM-142	Calculus and Differential Equations	5(4-1-0)/5	Nil
3.	TCE-114	Engineering Graphics and Design	3(1-0-4)/5	Nil

4.	TID/ TSW/ TCE/TME- 109	Introduction to Environmental Engineering and Disaster Management	3(3-0-0)/3	Nil
5.	BHS-186	English	3(2-0-2)/4	Nil
6.	TIP-103	Workshop Practices	3(1-0-2x2)/5	Nil
7.	TIC-100	Induction Programme (2 Weeks)		Nil

II Semester

Sl. No.	Course No.	Course Title	Credit/Contact Hours	Pre-requisite
1.	BPC-102	Chemistry I	4(3-0-2) /5	Nil
2.	BPM-152	Linear Algebra, Transform Calculus and Numerical Methods	4(3-1-0)/4	Nil
3.	TEE-104	Basic Electrical Engineering	5(3-1-2) /6	Nil
4.	BHS-188	Industrial Sociology	3(3-0-0)/3	Nil
5.	TIT-121	Programming for Problem Solving	4(3-0-2) /5	Nil
6.	TWP-101	Work Programme	1(0-0-3)/3	Nil
7.	TEE-191	Practical Training I	02 Weeks	Nil
	Total Credits		22+21=43	

Second Year:

I Semester

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
1.	TEE-201	Electrical Circuit Analysis	4(3-1-0)/4	Nil
2.	TEE-203	Measurements and Instrumentation	3(2-0-2)/4	Nil
3.	TEE-207	Electromagnetic Fields	4(3-1-0)/4	Nil
4.	TME-201	Engineering Mechanics	4(3-1-0)/4	Nil
5.	TEC-209	Signals and Systems	4(3-1-0)/4	Nil
6.	BHS-286	Effective Technical Communication	3(3-0-0)/3	Nil
7.	NSS-201	N.S.S.	0(0-0-4)	Nil

II Semester

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
1.	TEE-202	Analog Electronics	4(3-0-2)/5	Nil
2.	TCT-202	Digital Electronics	4(3-0-2)/5	Nil
3.	TEE-206	Electrical Machines I	3(2-1-0)/3	Nil
4.	TEE-208	Microprocessors	4(3-0-2)/5	Nil
5.	TEE-209	Network analysis and synthesis	3(2-1-0)/3	Nil
6.	TEE-317	Software Tools for Electrical Engg Application	1(0-0-2)/2	Nil
7.	BHS-387	Soft Skills	3(3-0-0)/3	Nil
8.	NSS-202	N.S.S.	1(0-0-4)	Nil
9.	TEE-291	Practical Training II	02 Weeks	Nil
	Total Credits		23+22=45	

Third Year:

I Semester

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
1.	TEE-314	Power Systems I	3(2-1-0)/3	Nil

2.	TEE-316	Control System I	4(3-0-2)/5	Nil
3.	TEE-311	Power Electronics	4(3-0-2)/5	Nil
4.	TEE-312	Electrical Machines II	4(2-1-2)/5	Nil
5.	TEE-315	Elect. Materials	3(3-0-0)/3	Nil
6.	BPS-228	Probability and Statistics	4(3-1-0)/4	Nil
7.	NSS-301	N.S.S.	0(0-0-4)	Nil

II Semester

Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
1.	TEE-318	Power Systems II	3(3-0-0)/3	Nil
2.	TEC-304	Analog and Digital Communication	3(3-0-0)/3	Nil
3.	TEE-319	Electrical Machines III	5(3-1-2)/6	Nil
4.		Open Elective 1	3 Credit	Nil
5.	TEE-	Programme Elective 1	3 Credit	Nil
6.	TEE-	Programme Elective 2	3 Credit	Nil
7.	TEE-320	Control System II	2(2-0-0)/2	Nil
8.	NSS-302	N.S.S.	1(0-0-4)	Nil
9.	TEE-391	Practical Training III	04 Weeks	Nil
	Total Credits		23+22=45	

Fourth Year:

I Semester				
Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
1.	TEE-	Programme Elective 3	3 Credit	Nil
2.	TEE-	Programme Elective 4	3 Credit	Nil
3.	TEE-411	Renewable Energy Systems	3(3-0-0)/3	Nil
4.	TEE-410	Power System III	4(3-0-2)/5	Nil
5.	TEE-495 A	Project Stage I	4(0-0-4x2)/8	Nil
6.		Open Elective 2	3 Credit	Nil
7.	TEE-494	Seminar	1(0-0-2)/2	Nil
II Semester				
Sl. No.	Course No.	Course Title	Credit & Contact Hours	Pre-requisite
1.	TEE-	Programme Elective 5	3 Credit	Nil
2.	TEE-	Programme Elective 6	3 Credit	Nil
3.		Open Elective 3	3 Credit	Nil
4.		Open Elective 4	3 Credit	Nil
5.	TEE-495B	Project Stage II	8(0-0-8x2)/16	Nil
	Total Credits		21+20=41	

TOTAL CREDITS = 174**ELECTIVE COURSES**

Sl. No.	Course No.	Course Title	L-T-P	Credits
1	TEE-401	Soft Computing and Its Engineering Applications	3-0-0	3
2	TEE-402	Renewable Energy: Concepts and Practices	3-0-0	3
3	TEE-403	Utilization of Electrical Energy	3-0-0	3
4	TEE-404	Concepts of Electrical Power System	3-0-0	3
5	TEE-429	Electrical Drives	2-1-0	3
6	TEE-430	Digital Control System	3-0-0	3
7	TEE-440	Line Commutated and Active Rectifiers	3-0-0	3
8	TEE-442	Artificial Neural Networks and Fuzzy Systems for Electrical Engineers	2-0-2	3
9	TEE-443	Power Quality & FACTS	3-0-0	3
10	TEE-444	Electrical Machine Design	3-0-0	3
11	TEE-445	Power System Protection	3-0-0	3
12	TEE-446	HVDC Transmission Systems	3-0-0	3
13	TEE-447	Electrical Energy Conservation and Auditing	3-0-0	3
14	TEE-448	Industrial Electrical Systems	3-0-0	3
15	TEE-449	Power System Dynamics and Control	3-0-0	3
16	TEE-450	High Voltage Engineering	3-0-0	3
17	TEE-451	Advance Electric Drives	3-0-0	3
18	TEE-452	Digital Signal Processing	3-0-0	3
19	TEE-453	Electrical and Hybrid Vehicles	3-0-0	3
20	TEE-454	Electromagnetic waves	3-0-0	3

Note: Elective Courses at Sl. No. 1 to 4 are for students of other branches except Electrical Engineering.