

**GRADUATION REQUIREMENTS FOR B. TECH. in  
ELECTRONICS & COMMUNICATION ENGINEERING (Regular)  
Batch 2022 (2022-23)**

Sl. No.	Course No.	Course Title	Credit			
			Cr	L	T	P

<b>First Year Courses (Basic Sciences, Social Science, Humanities, Engineering Sciences)</b>						
1.	BPP-198	Semiconductor Physics	5	3	1	2
2.	BPM-142	Calculus and Differential Equations	5	4	1	0
3.	TEE-104	Basic Electrical Engineering	5	3	1	2
4.	TCE-114	Engineering Graphics & Design	3	1	0	2x2
5.	TWP-101	Work Programme	1	0	0	3
6.	BPC-102	Chemistry –I	4	3	0	3
7.	BPM-152	Linear Algebra, Transform Calculus and Numerical Methods	4	3	1	0
8.	TIT-121	Programming for Problem Solving	4	3	0	2
9.	TIP-103	Workshop Practices	3	1	0	2x2
10.	BHS-186	English	3	2	0	2
11.	BPS-228	Probability & Statistics	4	3	1	0
12.	TID/TSW/ TCE/TME- 109	Environmental Engineering and Disaster Management	3	3	0	0
13.	TCE-206	Engineering Mechanics	4	3	1	0
14.	BHS-188	Industrial Sociology	3	3	0	0
15.	BHS-100	Constitution of India	1	1	0	0
16.	TEC-191	Practical Training-I (2 weeks)	0			
17.	TIC-100	Induction Programme (2 Weeks)				
		<b>TOTAL</b>	<b>52</b>	36	6	22
<b>Professional Courses</b>						
18.	TEC-205	Electronic Devices	4	3	1	0
19.	TEC-206	Electronic Devices Lab	1	0	0	2
20.	TEC-207	Digital System Design	4	3	1	0
21.	TEC-208	Digital System Design Lab	1	0	0	2

22.	TEC-209	Signals and Systems	<b>4</b>	3	1	0
23.	TEE-205	Network Theory	<b>3</b>	3	0	0
24.	TEC-211	Electromagnetic Waves	<b>4</b>	3	1	0
25.	TEC-214	Analog Communication Systems	<b>4</b>	3	1	0
26.	TEC-215	Analog Circuits	<b>4</b>	3	1	0
27.	TEC-216	Analog Circuits Lab	<b>1</b>	0	0	2
28.	TEC-217	Microcontrollers	<b>2</b>	2	0	0
29.	TEC-218	Microcontrollers Lab	<b>1</b>	0	0	2
30.	TEC-219	Antenna and Propagation	<b>4</b>	3	1	0
31.	TEC-291	Practical Training-II (2 weeks)	<b>0</b>			
32.	TEC-305	Digital Communication Systems	<b>4</b>	3	1	0
33.	TEC-306	Communication Systems Lab	<b>1</b>	0	0	2
34.	TCT-207	Computer Organization and Architecture	<b>3</b>	2	0	2
35.	TEC-308	Digital Signal Processing	<b>4</b>	3	1	0
36.	TEC-309	Control Systems	<b>4</b>	3	1	0
37.	TEC-314	Simulation Software	<b>2</b>	0	0	2x2
38.	TEC-315	Electronic Measurement Lab	<b>1</b>	0	0	2
39.	TEC-316	Electronic Design workshop	<b>2</b>	0	0	2x2
40.	TEC-317	Digital Signal Processing Lab	<b>1</b>	0	0	2
41.	TEC-319	Microwave Theory and Techniques	<b>4</b>	3	1	0
42.	TEC-322	Microwave Lab	<b>1</b>	0	0	2
43.		OE-1**	<b>3</b>	3	0	0
44.	TEC-391	Practical Training-III (4 weeks)	<b>0</b>			
45.	TEC-321	CMOS Design	<b>3</b>	3	0	0
46.		OE-2**	<b>3</b>	3	0	0
47.	TEC-*	Program Elective -1	<b>4*</b>	3	0/1	2/0
48.	TEC-*	Program Elective -2	<b>4*</b>	3	0/1	2/0
49.	TEC-*	Program Elective -3	<b>4*</b>	3	0/1	2/0
50.		OE-3**	<b>3</b>	3	0	0

51.	TEC-495A	Project-I	<b>4</b>	0	0	8
52.	TIP-454	Principles of Management	<b>2</b>	2	0	0
53.	TEC-492	Seminar	<b>1</b>	0	0	2
54.	TEC-*	Program Elective -4	<b>4*</b>	3	0/1	2/0
55.	TEC-429	Computer Network	<b>4</b>	3	1	0
56.	TEC-430	IC Fabrication Technology	<b>3</b>	3	0	0
57.	TEC-*	Program Elective -5	<b>4*</b>	3	0/1	2/0
58.	TEC-*	Program Elective -6	<b>4*</b>	3	0/1	2/0
59.		OE-4**	<b>3</b>	3	0	0
60.	TEC-495B	Project-II	<b>8</b>	0	0	16
<b>Any One Package from the followings (NSS or NCC)</b>						
<b>Package-I (NSS)</b>						
61.	NSS-101	National Service Scheme (NSS)	<b>1</b>	0	0	4
62.	NSS-102	National Service Scheme (NSS)	<b>0</b>	0	0	4
63.	NSS-201	National Service Scheme (NSS)	<b>1</b>	0	0	4
64.	NSS-202	National Service Scheme (NSS)	<b>0</b>	0	0	4
<b>Package-II (NCC)</b>						
61.	NCC-101	National Cadet Core (NCC)	<b>1</b>	0	0	4
62.	NCC-102	National Cadet Core (NCC)	<b>0</b>	0	0	4
63.	NCC-201	National Cadet Core (NCC)	<b>1</b>	0	0	4
64.	NCC-202	National Cadet Core (NCC)	<b>0</b>	0	0	4
		<b>Total Core Credits</b>	<b>127</b>	81	0	68
		<b>Total Credits including First Year Courses</b>	<b>179</b>	<b>117</b>	<b>18/24</b>	<b>90/112</b>

TEC-\*: (Program Elective Course) Course to be selected from the list of Program Electives

OE\*\*:(Open Elective Course) Open Elective from other technical and/or emerging subjects

**Note: Semester-wise interchange in the course curriculum may be done as per availability of experts and Lab facilities.**

**Total Credit Hours : 179 Total Contact Hours: 225/237**

### Program Elective Courses (TEC-\*)

Sl.	Course No.	Course Title	Credit
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<b>No.</b>			<b>Cr</b>	<b>L</b>	<b>T</b>	<b>P</b>
1	TEC-320	Information Theory and Coding	4	3	1	0
2	TEC-323	Neural Processing and Systems	4	3	1	0
3	TEC-324	Mixed Signal Design	4	3	1	0
4	TEC-325	Embedded systems	4	3	1	0
5	TEC-431	Fiber Optic Communications	4	3	0	2
6	TEC-432	Mobile Communication and Networks	4	3	1	0
7	TEC-433	Satellite Communication	4	3	1	0
8	TEC-434	High Speed Electronics	4	3	0	2
9	TEC-435	Digital Image & Video Processing	4	3	0	2
10	TEC-436	Wireless Sensor Networks	4	3	1	0
11	TEC-437	Error correcting codes	4	3	1	0
12	TEC-438	Artificial Intelligence	4	3	0	2
13	TEC-439	Speech and Audio Processing	4	3	0	2
14	TEC-444	Synthesis of Digital Systems	4	3	0	2