

JAYPEE UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Revised Curriculum for B. Tech. (Electronics and Communication Engineering)
(For Batch 2022-26 onwards)

FIRST SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.	18B11MA111	MATH	Mathematics-1	3	1	0	4	4
2.	18B11PH111	PHY	Physics-1	3	1	0	4	4
3.	18B11HS111	HSS	English	2	0	2	3	3
4.	18B11CI111	CSE	Software Development Fundamentals	3	1	0	4	4
5.	18B17PH171	PHY	Physics Lab-1	0	0	2	2	1
6.	18B17CI171	CSE	Software Development Lab	0	0	4	4	2
7.	18B17ME171	MEC	Workshop	0	0	3	3	1.5
8.			Value Added Course-1	2	0	0	2	Qualifying
			TOTAL				26	19.5

SECOND SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.	21B11HS211	HSS	Life Skills and Effective Communication	1	0	2	3	2
2.	18B11MA211	MATH	Discrete Mathematics	3	1	0	4	4
3.	18B11PH211	PHY	Physics-2	3	1	0	4	4
4.	18B11EC211	ECE	Electrical Science	3	1	0	4	4
5.	18B11CI211	CSE	Object Oriented Programming	3	1	0	4	4
6.	18B17PH271	PHY	Physics Lab-2	0	0	2	2	1
7.	18B17EC271	ECE	Electrical Science Lab	0	0	2	2	1
8.	18B17CI271	CSE	Object Oriented Programming lab	0	0	2	2	1
9.	18B17ME272	MEC	Engineering Drawing & Design Lab			3	3	1.5
			TOTAL				28	22.5

THIRD SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.	18B11HS312	HSS	Techniques for Decision Making	2	1	0	3	3
2.	18B11CI512	CSE	Data Structures and Algorithms	3	0	0	3	3
3.	18B11EC312	ECE	Signals & Systems	3	1	0	4	4
4.	18B11EC313	ECE	Analog Electronics	3	1	0	4	4
5.	18B11EC314	ECE	Measurement & Instrumentation	3	0	0	3	3
6.	18B19GE399	GE	Environmental Science	2	0	0	2	2
7.	18B17CI572	CSE	Data Structures and Algorithms Lab	0	0	2	2	1
8.	18B17EC372	ECE	Signals & Systems Lab	0	0	2	2	1
9.	18B17EC373	ECE	Analogue Electronics Lab	0	0	2	2	1
10.	18B17EC374	ECE	Measurement & Instrumentation Lab	0	0	2	2	1
11.			Value Added Course-2	0	0	2	2	Qualifying
12.	21B19CI399	CSE	Programming in Python (Value Added Course-3)	0	0	2	2	Qualifying
			TOTAL				31	23

FOURTH SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.		HSS	HSS Elective – 1	3	0	0	3	3
2.	18B11EC411	ECE	Digital Circuit Design	3	0	0	3	3
3.	18B11EC412	ECE	Analog and Digital Communication	3	1	0	4	4
4.	18B11EC541	ECE	Electromagnetic Field Theory	3	1	0	4	4
5.	18B11EC414	ECE	Control System	3	1	0	4	4
6.	18B17EC471	ECE	Digital Circuit Design Lab	0	0	2	2	1
7.	18B17EC472	ECE	Analog and Digital Communication Lab	0	0	2	2	1
8.	18B17EC572	ECE	Hardware Lab	0	0	2	2	1
			TOTAL				24	21

FIFTH SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.		HSS	HSS Elective-2	2	1	0	3	3
2.	18B11MA511	MATH	Probability and Random Processes	3	1	0	4	4
3.		ECE	Discipline Elective -1	3	0	0	3	3
4.			Science Elective	3	0	0	3	3
5.			Value Added Course-4*	2	0	0	2	Qualifying
6.	18B11EC511	ECE	Microprocessor and Interfacing	3	0	0	3	3
7	18B11EC413	ECE	Digital Signal Processing	3	0	0	3	3
9.	18B17EC571	ECE	Microprocessor and Interfacing Lab	0	0	2	2	1
10.	18B17EC473	ECE	Digital Signal Processing Lab	0	0	2	2	1
11.	18B19EC591	ECE	Minor Project – 1	0	0	4	4	2
			TOTAL				29	23

*Value added course- Foreign Language, Indian Constitutional and Traditional Knowledge

SIXTH SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.		HSS	HSS Elective-3	3	0	0	3	3
2.	18B11EC611	ECE	Telecommunication Networks	3	0	0	3	3
3.	18B11EC612	ECE	VLSI Design	3	0	0	3	3
4.		ECE	Discipline Elective – 2	3	0	0	3	3
5.		ECE	Discipline Elective – 3	3	0	0	3	3
6.	18B17EC671	ECE	Telecommunication Networks Lab	0	0	2	2	1
7.	18B17EC672	ECE	VLSI Design Lab	0	0	2	2	1
8.	18B17EC673	ECE	Advanced Communication Lab	0	0	2	2	1
9.	18B19EC691	ECE	Minor Project-2	0	0	4	4	2
			TOTAL				25	20

1. All students will undergo Value Added Course; however it will not count for CGPA calculations and will not be reflected in transcript of those students who fail to qualify.
2. Students will undergo 6 weeks Industrial Training during Summer Vacation after 6th Semester.

SEVENTH SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.		All Branches	Open Elective – 1	3	0	0	3	3
2.		ECE	Discipline Elective – 4	3	0	0	3	3
3.		ECE	Discipline Elective– 5	3	0	0	3	3
4.		ECE	Discipline Elective – 6	3	0	0	3	3
5.	18B19EC791	ECE	Major Project Part-I	0	0	8	8	4
6.	18B19EC792	ECE	Summer Training Viva	0	0	0	0	Qualifying
			TOTAL				20	16

EIGHTH SEMESTER

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits
				L	T	P	Total	
1.		Engg. Branch	Open Elective – 2	3	0	0	3	3
2.		ECE	Discipline Elective– 7	3	0	0	3	3
3.		ECE	Discipline Elective – 8	3	0	0	3	3
4.	18B19EC891	ECE	Major Project Part-II	0	0	16	16	8
5.			Value Added Course-5	2	0	0	2	Qualifying
			TOTAL				27	17

Total Credits for B. Tech. –162

S. No.	Discipline Elective	
	Course Code	Course Title
1.	18B14EC542	Network Synthesis
2.	18B14EC543	Digital Hardware Design
3.	18B14EC641	Electronic Testing
4.	18B14EC642	Embedded System
5.	18B14EC643	Antenna and Wave Propagation
6.	18B14EC644	Microwave and Radar System
7.	18B14EC645	Optical Communication
8.	18B14EC646	DSP Processors
9.	18B14EC741	Internet Based Automation
10.	18B14EC742	Linear VLSI IC Design
11.	18B14EC743	Multi-rate Signal Processing and Filter Banks
12.	18B14EC744	Information Theory and Coding
13.	18B14EC745	Advance Control System
14.	18B14EC746	Neural Network
15.	18B14EC747	Mobile Communication
16.	18B14EC748	Stastical Signal Processing
17.	18B14EC749	Image and Video Processing
18.	18B14EC841	Spread Spectrum Communication
19.	18B14EC842	Speech Signal Processing
20.	18B14EC843	Wireless Sensor Networks
21.	18B14EC844	Satellite Communication

22.	18B14EC845	Biomedical Signal Processing
23.	18B14EC846	MIMO Systems
24.	21B14EC848	Instrumentation Engineering for Smart Cities
25.		FPGA based System Design
26.		Data Compression

S. No.	Science Elective	
	Course Code	Course Title
1.	18B14FS541	Power Science
2.	18B14FS542	Science of Semiconductors
3.	18B14FS543	Nano Science and Technology
4.	18B14PH543	Material Science and Applications
5.	18B14CH541	Biochemistry

S. No.	Open Elective -1	
	Course Code	Course Title
1.	18B14EC761	Sensors and Transducers
2.	18B14EC762	Introduction to Microprocessors and Microcontrollers
	Open Elective -2	
	Course Code	Course Title
1.	18B14EC861	Introduction to Neural Network
2.	18B14EC643	Introduction to Robotics