

## B.Tech. (Electronics & Communication Engineering) 2022-26

Year	Semester-I			Semester-II						
	L	P	U	L	P	U	L	P	U	
I	Mathematics-I	3	0	3	Mathematics-II	3	0	3		
	English Language Skills	2	2	3	Physics	3	2	4		
	Introduction to Electrical & Electronics Sciences	3	2	4	Environment Sciences & SDGs	2	0	2		
	Chemistry	3	2	4	Digital Signal Processing	3	0	3		
	Introduction to DS and AI	3	0	3	Professional Communication	3	0	3		
	Computer Programming	3	2	4	Digital Fabrication	0	6	3		
	Audit Course	2	0	0	Data Structures	2	4	4		
<b>Total No of Credits</b>		21			<b>Total No of Credits</b>			22		
II	<b>Semester-III</b>			<b>Semester-IV</b>						
	Introduction to IoT	3	0	3	Microprocessor Programming & Interfacing	3	2	4		
	Object Oriented Programming Concepts	2	4	4	Speech Processing	3	0	3		
	Mathematics-III	3	0	3	Web enabled Technology	3	0	3		
	Circuit Theory	2	0	2	Industry coding practice (Python and R)	2	2	3		
	Control Systems	3	0	3	Hardware modelling using Verilog	3	2	4		
	Principles of Managerial Economics	3	0	3	Analog Electronics	2	2	3		
	Electronic Devices	3	0	3	Digital Humanities Elective1	3	0	3		
	CRT	0	2	1	CRT	0	2	1		
<b>Total No of Credits</b>		22			<b>Total No of Credits</b>			24		
<b>SUMMER INTERNSHIP PROGRAM I (for Internship option only)</b>									<b>5</b>	
III	<b>Semester-V</b>			<b>Semester-VI</b>						
	Computer Organization and Architecture	3	0	3	ASIC Design	3	0	3		

Analog and Digital Communication (Core)	3	2	4	Embedded systems	3	0	3
Digital VLSI Design (Core)	3	0	3	Autonomous vehicles	3	0	3
ML Based Signal Processing	3	0	3	RF & Microwave Engineering	3	2	4
Computer Networks	3	0	3	CMOS Analog Integrated Circuit Design	3	0	3
Electromagnetic Fields Waves (Core)	3	0	3	Special Project / TIP/Capstone Project	0	6	3
Audit Course	0	0	0	CRT	0	2	1
CRT	0	2	1				
<b>Total No of Credits</b>	20			<b>Total No of Credits</b>	20		
<b>Semester-VII</b>				<b>Semester-VIII</b>			
IV	Internship Program II /	20		Internship Program II /	20		
	Thesis & Seminar			Thesis & Seminar			
	Electives (4)+ Professional/Discipline Elective	Or 18		Electives (4)+ Professional/Discipline Elective	Or 18		
	Humanities Electives (1)			Humanities Electives (1)			
<b>Total No of Credits</b>	<b>20/18</b>		<b>Total No of Credits</b>	<b>18/20</b>			
<b>Total No of Credits</b>				<b>172</b>			

***The Program structure is subject to change (if required).***

Open Electives			
Course Title	L	P	U
Dynamics of Social Change	3	0	3
Introduction to Psychology	3	0	3
Heritage of India	3	0	3
Modern Political Science	3	0	3
Public Administration	3	0	3
Professional Ethics	3	0	3

Discipline Elective (VII/VIII Semester)			
Communication Electives			
Course Title	L	P	U

Optical Communications	3	0	3
Wireless Communication Networks	3	0	3
Satellite Communications	3	0	3
Mobile Communication	3	0	3

<b>Microwave Electives</b>			
Course Title	L	P	U
Antenna and wave propagation	3	0	3
Radar Systems	3	0	3
RF & Microwave Communication circuits and systems	3	0	3
Smart Antennas for Mobile Communication	3	0	3

<b>VLSI Electives</b>			
Course Title	L	P	U
Low power VLSI Design	3	0	3
Digital Systems	3	0	3
CPLD & FPGA	3	0	3
IC Applications	3	0	3

<b>Embedded Electives</b>			
Course Title	L	P	U
Bio-Medical Electronics	3	0	3
DSP Processors and Architecture	3	0	3
Microcontrollers & Applications	3	0	3

<b>Design Electives</b>			
Course Title	L	P	U
Computer Vision	3	0	3
Sensors & Actuators	3	0	3
Information Theory & Coding	3	0	3

<b>Humanities Electives I (VI Semester)</b>			
Course Title	L	P	U
Social Innovation	3	0	3