

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
UNDER GRADUATE (B.Tech.) SCHEME AND SYLLABUS

III Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
MTH24231	Applied Numerical Methods	3	1	-	4
ME24252	Fundamentals of Design Methods	2	1	-	3
ECE24211	Electronic circuits and devices	3	-	-	3
ECE24212	Digital Circuit Design	3	-	-	3
ECE24213	Network Analysis and Synthesis	3	-	-	3
ECE24214	Signals & Systems	3	-	-	3
ECE24215	Network Lab	-	-	2	1
ECE24216	Digital Circuit Design Lab	-	-	2	1
ECE24217	Electronics Circuit Lab	-	-	2	1
ECE24218	Professional Practices	-	2	-	2
ECE 24211	Minor-1 (Electronic circuits and devices)	3	-	-	3*
Total Hours: 27		17	4	6	24
Total Credits (Cumulative) 65					
Additional Subject: - National Cadet Corps (NCC)					
NCC24251	National Cadet Corps III	1	5	1	7
Total Credits (Cumulative) 11					

IV Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
HUM24251	Fundamentals of Entrepreneurship	3	-	-	3
ECE24221	Digital Signal Processing	3	-	-	3
ECE24222	Linear Integrated Circuits	3	-	-	3
ECE24223	Microprocessors and Microcontrollers	3	-	-	3
ECE24224	EM Fields and Transmission Lines	3	-	-	3
ECE24225	Electronic Instrumentation and Measurement	3	-	-	3
ECE24226	Linear Integrated Circuits lab	-	-	2	1
ECE24227	Microprocessors and Micro Controllers Lab	-	-	2	1
ECE24228	Digital Signal Processing Lab	-	-	2	1
ECE24229	ProjectBasedLab1	-	-	2	1
ECE24221	Minor-2 (Digital Signal Processing)	3	-	-	3*
Total Hours: 26		18	-	8	22
Total Credits (Cumulative) 87					
Additional Subject: - National Cadet Corps (NCC)					
NCC24252	National Cadet Corps IV	2	-	1	3
Total Credits (Cumulative) 14					

V Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
CS24352	Data Structures and Algorithm	3	1	-	4
ECE24311	Information theory and coding	3	1	-	4
ECE24312	Control Systems	3	-	-	3
ECE24313	Communication Systems	3	-	-	3
ECE24314	VLSI Design	3	-	-	3
	Departmental Elective-1(A)	3	-	-	3
ECE24315	Communication Systems Lab	-	-	2	1
ECE24316	Control and instrumentation lab	-	-	2	1
ECE24317	VLSI Design Lab	-	-	2	1
ECE24318	Internship / Industrial Training	-	-	2	1
ECE24313	Minor-3* (Communication Systems)	3	-	-	3*
Total Hours: 28		18	2	8	24
Total Credits (Cumulative) 111					
Additional Subject: - National Cadet Corps (NCC)					
NCC24351	National Cadet Corps V	1	5	1	7
Total Credits (Cumulative) 21					

VI Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
ME24351	Engineering Management	3	-	-	3
ECE24321	Digital Image Processing	3	1	-	4
ECE24322	Optical Communication	3	-	-	3
ECE24323	Microwave Engineering	3	-	-	3
	Departmental Elective-2(A)	3	-	-	3
ECE24324	Digital Image Processing Lab	-	-	2	1
ECE24325	Optical communication lab	-	-	2	1
ECE24326	Microwave Engineering lab	-	-	2	1
ECE24327	Project-1	-	-	2	1
ECE24322	Minor-4* (Optical Communication)	3	-	-	3*
Total Hours: 27		18	1	8	20
		Total Credits (Cumulative)			131
Additional Subject: - National Cadet Corps (NCC)					
NCC24352	National Cadet Corps VI	2	-	1	3
Total Credits (Cumulative)					24

List of Departmental Electives A (3rd Year)

ECE24331	VLSI Technology
ECE24332	Digital system Design
ECE24333	Design of Analog IC
ECE24334	Telecom switching system
ECE24335	Satellite Communication
ECE24336	Optimization Techniques
ECE24337	Computer Networks
ECE24338	Computer Engineering

VII Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
HUM24451	Engineering Economics and IPR	3	-	-	3
ECE24411	RF and Antenna Design	3	-	-	3
	Departmental Elective-3(A)	3	-	-	3
	Departmental Elective-4(A)	3	-	-	3
	Open Elective-1(C)	3	-	-	3
ECE24412	RF & Antenna Lab	-	-	2	1
ECE24413	Project Based Lab-2	-	-	4	2
ECE24414	Industrial/Field Training	-	-	2	1
	Minor-5 (Any core or Elective)	3	-	-	3*
Total Hours: 23		15	-	8	19
Total Credits (Cumulative) 150					

VIII Semester

Course No.	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
	Departmental Elective -5 (A) (NPTEL/SWAYAM Courses Only)	3	-	-	3
	Departmental Elective-6(A) (NPTEL/SWAYAM Courses Only)	3	-	-	3
ECE24421/ ECE24422	Internship/Project 2	-	-	16	8
ECE24423	General Proficiency	-	-	-	1
Total Hours: 22		6	-	16	15
Total Credits (Cumulative) 165					

List of Departmental Electives A (4th Year)

ECE24440	Physical Design Automation	ECE24450	RADAR & Navigation Systems
ECE24441	CMOS RF Circuit Design	ECE24451	Video Signal Processing
ECE24442	Low Power VLSI Design	ECE24452	Advance Instrumentation
ECE24443	Computer Aided Design of Digital Systems	ECE24453	Multirate Signal Processing
ECE24444	Nano Technology	ECE24454	Micro Electro Mechanical Systems
ECE24445	Embedded Systems	ECE24455	Statistical signal processing
ECE24446	Broadband Optical Communication	ECE24456	Biomedical Signal Processing
ECE24447	Wireless Communication	ECE24457	IOT and Applications
ECE24448	Computer Vision and Pattern Recognition	ECE24458	Internet technology
ECE24449	Mobile Communication	ECE24459	Biomedical Instrumentation

List of Open Electives C (4th Year)

ECE24460	Neural Networks
ECE24461	Fuzzy Logic
ECE24462	Probability theory and Random process
ECE24463	Artificial Intelligence and Machine Learning
ECE24464	RF Design and Planning