

**Bachelor of Technology in Electronics and Telecommunication Engineering
Semester V**

Course Code	Course Name	Category	Course Component	Teaching Scheme (Contact Hours)		Credits Assigned		
				Theory	Practical /Tutorial	Theory	Practical /Tutorial	Total
EXTC 301	Digital Communication	PCC	TL	3	2	3	1	4
EXTC 302	Embedded Systems	PCC	TL	3	2	3	1	4
COMM 103	Professional Communication II	HSSM	TLC	1	2	1	1	2
EXTC 303	Java Programming	MDM	TL	1	2	0	2	2
EXTC3xx	Department Level Optional Course IA	PEC	TL	3	2	3	1	4
EXTC3xx	Department Level Optional Course IIA	PEC	TL	3	2	3	1	4
ILOC1	Institute Level Optional Course I	OE	T	3	-	3	-	3
EXTC 393	Mini Project III	SKILL	LC	0	2	-	1	1
Total				17	12	16	8	24

Examination Scheme Semester V

Course Code	Course Name	Category	Theory					Term Work	Pract/ Oral	Total
			Internal Assessment			End Sem Exam	Exam Duration (Hrs)			
			1	2	Avg					
EXTC 301	Digital Communication	PCC	40	40	40	60	2	25	25	150
EXTC 302	Embedded Systems	PCC	40	40	40	60	2	25	25	150
COMM103	Professional Communication II	HSSM	-	-	-	-	-	50	-	50
EXTC 303	Java Programming	MDM	-	-	-	-	-	25	25	50
EXTC3xx	Department Level Optional Course IA	PEC	40	40	40	60	2	25	25	150
EXTC3xx	Department Level Optional Course IIA	PEC	40	40	40	60	2	25	25	150
ILOC	Institute Level Optional Course I	OE	40	40	40	60	2	-	-	100
EXTC 393	Mini Project III	SKILL	-	-	-	-	-	25	25	50
Total									850	

T- Theory , L- Lab , P-Programming, C- Communication

Department Level Optional Course I A is to be chosen from any ONE specialization from Group I and Department Level Optional Course II A is to be chosen from any ONE specialization from Group II

Specialization	Group I			Specialization	Group II		
Semester V Elective	Smart Robotics and IoT driven Application Development	Product Design	VLSI Chip Design Technology	Semester V Elective	Advanced Communication System	Cloud Computing	Data Science
Course Code Course Name Department Level Optional Course I A	EXTC 304 IoT Basics and Smart sensors	EXTC 305 PCB Design and Electronics Equipment Troubleshooting	EXTC 306 Basics of VLSI Design	Course Code Course Name Department Level Optional Course II A	EXTC 307 Data Processing and Coding EXTC 308 TV and Video Engineering	EXTC 309 Computer Communication and Network	EXTC 310 Database Management System

Institute Level Optional Course I to be chosen from following any ONE Specialization

SN	Specialization	Course Code	Course Name
1	IP Management and Digital Business	IL 360	IPR and Patenting
2	Business Management	IL 361	E- Commerce and E-Business
3	Bio Engineering	IL 362	Introduction to Bioengineering
4	Bio Instrumentation	IL 363	Biomedical Instrumentation
5	Engineering Design	IL 364	Design of Experiments
6	Sustainable Technologies	IL 365	Design for Sustainability
7	Contemporary Studies	IL 366	Political Science
8	Art and Journalism	IL 367	Visual Arts
9	Applied Science	IL 368	Modern Day Sensor Physics
10	Green Technologies	IL 369	Energy Audit and Management
11	Maintenance Engineering	IL 370	Maintenance of Electronics Equipment
12	Life Skills	IL 371	Cooking and Nutrition
13	Environment	IL 372	Environmental Management
14	Safety	IL 373	Vehicle Safety
15	Quantum Computing and Technologies	IL 388	Quantum Computing and Quantum Technologies – Part 1

**Bachelor of Technology in Electronics and Telecommunication Engineering
Semester VI**

Course Code	Course Name	Category	Course Component	Teaching Scheme (Contact Hours)		Credits Assigned		
				Theory	Practical /Tutorial	Theory	Practical /Tutorial	Total
EXTC 311	Image Processing and Machine Vision	PCC	T	3	0	3	0	3
EXTC 312	Electromagnetic Wave and Radiating Systems	PCC	TL	3	2	3	1	4
EXTC 313	Data Structures	MDM	TL	2	2	2	1	3
EXTC3xx	Department Level Optional Course IB	PEC	TL	3	2	3	1	4
EXTC3xx	Department Level Optional Course IIB	PEC	TL	3	2	3	1	4
-	Institute Level Optional Course II	OE	T	3	-	3	-	3
EXTC 398	Major Project A	CEP	LC	-	6	-	3	3
Total				17	14	17	7	24

Examination Scheme Semester VI

Course Code	Course Name	Category	Theory					Term Work	Pract/ Oral	Total
			Internal Assessment			End Sem Exam	Exam Duration (Hrs)			
			1	2	Avg					
EXTC 311	Image Processing and Machine Vision	PCC	40	40	40	60	2	-	-	100
EXTC 312	Electromagnetic Wave and Radiating Systems	PCC	40	40	40	60	2	25	25	150
EXTC 313	Data Structures	MDM	20	20	20	40	2	25	25	110
EXTC3xx	Department Level Optional Course I B	PEC	40	40	40	60	2	25	25	150
EXTC3xx	Department Level Optional Course II B	PEC	40	40	40	60	2	25	25	150
-	Institute Level Optional Course II	OE	40	40	40	60	2	-	-	100
EXTC 398	Major Project A	CEP	-	-	-	-	-	25	25	50
Total									810	

T- Theory , L- Lab , P-Programming, C- Communication

In continuation with chosen department specialization, Department Level Optional Course I B is to be chosen from group I.

In continuation with chosen department specialization, Department Level Optional Course II B is to be chosen from group II.

Specialization	Group I			Specialization	Group II		
Semester VI Elective	SmartRobotics and IoT driven Application Development	Product Design	VLSI Chip Design Technology	Semester VI Electives	Advanced Communication System	Cloud Computing	Data Science
Course Code Course Name	EXTC 314	EXTC 315	EXTC 316	Course Code Course Name	EXTC 317	EXTC 320	EXTC 321
Department Level Optional Course I B	Robotics and Automation	Electronic Product Design	Integrated Circuit Technology	Department Level Optional Course II B	Speech and Audio Processing	Advanced Networking Technologies	Big Data Analytics
				EXTC 318 Radar Engineering			
				EXTC 319 Optical Communication			

In continuation with chosen institute level specialization, Institute Level Optional Course II to be chosen from following any ONE Specialization

SN	Name of the Specialization	Course Code	Name of the Subject
1	IP Management and Digital Business	IL 374	Digital Business Management and Digital Marketing
2	Business Management	IL 375	Business Analytics
3	Bio Engineering	IL 376	Bio Mechanics
4	Bio Instrumentation	IL 377	Medical Image Processing
5	Engineering Design	IL 378	Product Design
6	Sustainable Technologies	IL 379	Technologies for Rural Development
7	Contemporary Studies	IL 380	Economics
8	Art and Journalism	IL 381	Journalism, Media and Communication studies
9	Applied Science	IL 382	Operation Research
10	Green Technologies	IL 383	Climate Informatics
11	Maintenance Engineering	IL 384	Maintenance of Mechanical Equipment
12	Life Skills	IL 385	Physical Education
13	Environment	IL 386	Industrial Regulations and Laws
14	Safety	IL 387	Industrial and High Voltage safety
15	Quantum Computing and Technologies	IL 389	Quantum Computing and Quantum Technologies – II