

**DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION ENGINEERING**

**M. TECH.: VLSI AND EMBEDDED SYSTEMS**

FIRST SEMESTER						
S. No.	Course Code	Course Name	Category Code	I	P	C
1.	EC501	MOSFET Modelling for VLSI Circuits	PEC	3	2	4
2.	EC502	Digital VLSI System Design	PEC	3	2	4
3.	EC503	Embedded System Design	PEC	3	2	4
4.	EC504	Analog VLSI Design	PEC	3	2	4
5.	EC505	Advanced Computer Architecture	PEC	3	0	3
6.	XXxxx	Elective I	PEC	3	0	3
7.	EC594	Seminar	PCD	-	-	1
<b>Total No. of Credits</b>						<b>23</b>

SECOND SEMESTER						
S. No.	Course Code	Course Name	Category Code	I	P	C
1.	EC511	Digital Signal Processing and Architectures	PEC	3	2	4
2.	EC512	Mixed Signal Integrated Circuits	PEC	3	2	4
3.	EC513	VLSI Verification and Testing	PEC	3	2	4
4.	EC514	RFIC Design	PEC	3	0	3
5.	EC515	Electronic Packaging and Manufacturing	PEC	3	2	4
6.	XXxxx	Elective II	PEC	3	0	3
7.	EC595	Technical Writing	PCD	-	-	1
<b>Total No. of Credits</b>						<b>23</b>

THIRD SEMESTER						
S. No.	Course Code	Course Name	Category Code	I	P	C
1.	EC598	Dissertation Phase I	PEC	-	-	12
<b>Total No. of Credits</b>						<b>12</b>

FOURTH SEMESTER						
S. No.	Course Code	Course Name	Category Code	I	P	C
1.	EC599	Dissertation Phase II	PEC	-	-	12
<b>Total No. of Credits</b>						<b>12</b>

## Elective Courses

List of Electives						
S. No.	Course Code	Course Name	Category Code	I	P	C
1	EC521	Analog and Mixed Signal Circuit Design	PEC	3	0	3
2	EC522	Artificial intelligence and Machine Learning	PEC	3	0	3
3	EC523	Circuits for Electronics System Design	PEC	3	0	3
4	EC524	Cognitive Communication Networks	PEC	3	0	3
5	EC525	Communication Protocols for Electronic System Design	PEC	3	0	3
6	EC526	Design of Switched Mode Power Supply	PEC	3	0	3
7	EC527	Detection and Estimation Theory	PEC	3	0	3
8	EC528	Digital Image Processing	PEC	3	0	3
9	EC529	Electrical Drives	PEC	3	0	3
10	EC530	Electromagnetic Interference and Compatibility	PEC	3	0	3
11	EC531	MIMO Communication Systems	PEC	3	0	3
12	EC532	Numerical Techniques in Electromagnetics	PEC	3	0	3
13	EC533	Power Electronics	PEC	3	0	3
14	EC534	Reliable Digital Communication System Design	PEC	3	0	3
15	EC535	RF and Microwave Integrated Circuits	PEC	3	0	3
16	EC536	Satellite Communication	PEC	3	0	3
17	EC537	Sensing and Instrumentation	PEC	3	0	3
18	EC538	Signal and Power Integrity	PEC	3	0	3
19	EC539	Software Defined Radio	PEC	3	0	3
20	EC540	Testing and Testability	PEC	3	0	3
21	EC541	VLSI Technology	PEC	3	0	3
22	EC542	Design of IoT System	PEC	3	0	3
23	EC543	Electric Vehicle Technology	PEC	3	0	3
24	EC544	Navigation System	PEC	3	0	3

## Elective Courses

List of Electives						
S. No.	Course Code	Course Name	Category Code	I	P	C
1	EC521	Analog and Mixed Signal Circuit Design	PEC	3	0	3
2	EC522	Artificial intelligence and Machine Learning	PEC	3	0	3
3	EC523	Circuits for Electronics System Design	PEC	3	0	3
4	EC524	Cognitive Communication Networks	PEC	3	0	3
5	EC525	Communication Protocols for Electronic System Design	PEC	3	0	3
6	EC526	Design of Switched Mode Power Supply	PEC	3	0	3
7	EC527	Detection and Estimation Theory	PEC	3	0	3
8	EC528	Digital Image Processing	PEC	3	0	3
9	EC529	Electrical Drives	PEC	3	0	3
10	EC530	Electromagnetic Interference and Compatibility	PEC	3	0	3
11	EC531	MIMO Communication Systems	PEC	3	0	3
12	EC532	Numerical Techniques in Electromagnetics	PEC	3	0	3
13	EC533	Power Electronics	PEC	3	0	3
14	EC534	Reliable Digital Communication System Design	PEC	3	0	3
15	EC535	RF and Microwave Integrated Circuits	PEC	3	0	3
16	EC536	Satellite Communication	PEC	3	0	3
17	EC537	Sensing and Instrumentation	PEC	3	0	3
18	EC538	Signal and Power Integrity	PEC	3	0	3
19	EC539	Software Defined Radio	PEC	3	0	3
20	EC540	Testing and Testability	PEC	3	0	3
21	EC541	VLSI Technology	PEC	3	0	3
22	EC542	Design of IoT System	PEC	3	0	3
23	EC543	Electric Vehicle Technology	PEC	3	0	3
24	EC544	Navigation System	PEC	3	0	3