

**M. Tech Electronics & Communication & Engineering with specialization in
Microelectronics & VLSI Design**

Semester I

SN	Course Code	Course Name	L- T- P	Credits
1	EC501	Advanced Communication System	3-0-0	3
2	EC502	VLSI Circuits & System Design	3-0-0	3
3	ECXXX	DE -I	3-0-0	3
4	ECXXX	DE- II	3-0-0	3
5	HS520	Research Methodology and IPR	2-0-0	2
6	EC602	Advanced Communication System Lab	0-0-2	1
7	EC603	VLSI Circuits & System Design Lab	0-0-2	1
8	EC604	ECE Design & Simulation Lab	0-0-2	1
Total			20	17

Semester II

SN	Course Code	Course Name	L –T- P	Credits
1	EC503	Advanced Digital Signal Processing	3-0-0	3
2	EC504	Advanced Microprocessor& Microcontroller	3-0-0	3
3	ECXXX	DE –III (Based on Specialization)	3-0-0	3
4	ECXXX	DE – IV (Based on Specialization)	3-0-0	3
5	ECXXX	DE – V (Based on Specialization)	3-0-0	3
6	EC605	Advanced Microprocessor& Microcontroller Lab	0-0-2	1
7	EC606	Advanced Digital Signal Processing Lab	0-0-2	1
8	EC607	Minor Project (Based on Specialization)	0-0-6	3
9	HS051	Ethics in Research and Publications	2-0-0	AP
Total			27	20

Semester III

SN	Course Code	Course Name	L- T –P	Credits
1		Open Elective	3-0-0	3
2	ECXXX	DE – VI (Based on Specialization)	3-0-0	3
3	EC611	Seminar and Term Paper	0-0-4	2
4	EC612	Project Based Learning	0-0-8	4
5	EC610	Dissertation-I	0-0-8	4
6	HS050	Communication & Presentation Skills	2-0-0	AP
Total			28	16

Semester IV

SN	Course Code	Course Name	L -T –P	Credits
1	EC613	Dissertation - II/Industrial Project	0-0-30	15
Total			30	15

Total Credits = 68

Discipline Elective (To be updated from time to time)

SN	Course Code	Title
1	EC701	Analog VLSI Design
2	EC702	Semiconductor Device Modelling
3	EC703	VLSI Physical Design
4	EC704	Mixed Signal IC Design
5	EC705	VLSI Architecture for DSP Applications
6	EC706	Ultra Low Power VLSI Design
7	EC709	HDL based Digital System Design
8	EC708	Digital Image Processing
9	EC718	EM Theory for Microwave and Fiber Optics

Open Elective (To be updated from time to time)

SN	Course Code	Title
1.	EC719	Communication Systems & Applications