

M.Tech in VLSI Design**2024 Onwards****First Semester**

S. No	Sub Code	Subject	Contact hours	Credits
1.	17M21EC112	Digital Integrated Circuit Design	3	3
2.	20M51EC122	Fundamentals of Semiconductor devices	3	3
3.	18M12EC114	HDL Based System Design	3	3
4.	13M1NEC338	VLSI Physical Design	3	3
5.		Discipline Elective-I	3	3
6.	18M11GE111	Research Methodology and Intellectual Property Rights	2	2
7.	13M7NEC338	VLSI Design Lab-1	6	3
		Total	23	20

Second Semester

S. No	Sub Code	Subject	Contact hours	Credits
1	17M21EC115	Analogue Integrated Circuit Design	3	3
2	24M11EC111	VLSI Technology and Fabrication Processes	3	3
3	20M52EC114	Low-Power VLSI Design	3	3
4		Discipline Elective -II	3	3
5	24M15EC111	VLSI Design Lab-2	2	1
6	24M15EC112	Fabrication Lab	4	2
7	17M11EC120	Project Based Learning - I	4	2
8		AUDIT-I	2	Qualifyin g
		Total	22	17

Third Semester

S. No	Sub Code	Subject	Contact hours	Credits
1.		Open Elective	3	3
2.	17M17EC218	Seminar & Term Paper OR Earn credits by transfer eg. MOOCs, Course Work at another Institute, Supervised Study	4	4
3.	25M15EC211	Project Based Learning - II	8	4
4.	17M17EC219/ 17M17EC220/ 17M17EC221	Dissertation /Industrial Project / Entrepreneurial Project	8	4
5.		AUDIT-II	2	Qualifying
		TOTAL	25	15

Fourth Semester

S. No	Sub Code	Subject	Contact hours	Credits
1	17M17EC222/ 17M17EC223/ 17M17EC224	Dissertation / Industrial Project/ Entrepreneurial Project	32	16
			32	16

List of Elective Subjects (To be updated time to time)

Elective for 1st Sem

1. 20M51EC121: Introduction to IoT System Design
2. 24M12EC111: Nanomaterial and Nanotechnology
3. 24M12EC112: Fundamentals of VLSI Testing

Elective for 2nd Sem

1. 24M12EC114 VLSI Design Automation
2. 20M51EC124 IoT Perspective: Cloud Computing and Machine Learning
3. 24M12EC113: Fundamentals of Nano-Science & Technology
4. VLSI Digital Signal Processing Systems
5. Mixed-Signal VLSI Design
6. Advanced Embedded System

Audit-I

19M11HS113 English for Research Paper Writing

Audit-II

19M13HS211 Constitution of India