MTech (Microelectronics & VLSI): 3 Year (August 2025 Onwards)

Department Core and Soft Skill Courses

Course No.	Course Title	Credits	Semester offered	Remarks
EE5110	Semiconductor Devices and Modeling	3	Odd	EE5181 changed to existing EE5110
EE5182	VLSI Technology	3	Odd	
EE5183	Analog IC Design	3	Odd	
EE5193	CMOS Digital Design	3	Odd	Replacing EE5184: Intro to VLSI design
EE5172	Digital IC Design	2	Even	Course code changed from EE5186
EE5271	Digital IC Design Lab	1	Even	Course code changed from EE5187
EE5151	Analog IC Design Lab	1	Even	Course code changed from EE5188
LA5180	Communication Skills: Advanced	1	Odd	Course code changed from SSxxxx
EE5996	Industrial Lecture Series	1	Odd	Course code changed from SS5901
	Total Credits	**18**		

Students must complete 10 credits from department electives — Increased to 10 credits from 9 credits

List of elective courses (more courses can be added)

Course No.	Course Title	Credits
EE5192	Integrated circuits for wireless communication	3
EE6130	Computational Nanoelectronics	3
EE6120	Nanoelectronics: Devices and Principles	3
EE5520	Neuromorphic devices for AI/ML	3
EE6440	Extreme Environment Physical Electronics	3
EE5500	CMOS image sensor	2

Thesis Courses

Course No.	Course Title	Credits	Semester offered	
EE5015	MTech RA Thesis Stage 1	2	1	Course code changed from EE6116
EE5025	MTech RA Thesis Stage 2	2	2	Course code changed from EE6126
EE5035	MTech RA Thesis Stage 3	4	3	Course code changed from EE6136
EE6045	MTech RA Thesis Stage 4	4	4	Course code changed from EE6146
EE6055	MTech RA Thesis Stage 5	4	5	Course code changed from EE6156
EE6065	MTech RA Thesis Stage 6	8	6	Course code changed from EE6166
	Total Credits	**24**		

Summary:

	Course Type	Credits
	Department Core (Theory)	14
	Department Core (Lab)	2
	Department Electives	10
	Soft Skills	2
	Thesis	24
	Total Credits	**52**