

Department of Electronics and Communication Engineering

M.Tech. VLSI

Curriculum

(Applicable to the students admitted from AY: 2025 onwards)



School of Engineering and Sciences
SRM University AP, Andhra Pradesh

ABBREVIATIONS

AEC	Ability Enhancement Courses
VAC	Value Added Courses
SEC	Skill Enhancement Courses
FIC	Foundation & Interdisciplinary Courses
OE	Open Elective
RDIP	Research / Design / Industrial Practice / Project / Thesis / Internship
CE	Core Elective
CC	Core Course
SE	Stream Elective
TE	Technical Elective

SEMESTER - I							
S. No	Category	Sub-Category	Course Title	L	T/D	P/Pr	C
1	VAC	U VAC	Community Engagement and Social Responsibility	0	0	1	1*
2	AEC	S AEC	Research Seminar	0	0	1	1*
3	SEC	S SEC	Design Thinking	1	0	1	2
4	FIC	D FIC	AI/ML Techniques	2	0	1	3
5	Core	CC	CMOS Digital IC Design	3	0	1	4
6	Core	CC	CMOS Analog and Mixed Signal IC Design	3	0	1	4
7	Core	CC	VLSI Technology	3	1	0	4
8	Core	CC	VLSI Physical Design	3	0	1	4
Semester Total				15	1	5	21

SEMESTER - II							
S. No	Category	Sub-Category	Course Title	L	T/D	P/Pr	C
1	AEC	S AEC	Research Seminar - II	0	0	1	1
2	SEC	S SEC	Entrepreneurial mindset	1	0	1	2
3	Core	CC	VLSI Testing and Verification	3	0	1	4
4	Core	CC	Semiconductor Device Modelling	3	0	1	4
5	Core	CC	Advanced HDL based FPGA Design	3	0	1	4
6	Elective	CE	Core Elective	3	0	1	4
7	Elective	CE	Core Elective	3	0	1	4
8	RDIP	RDIP	Project Management	0	0	3	3
Semester Total				16	0	11	26

SEMESTER - III							
S. No	Category	Sub-Category	Course Title	L	T/D	P/Pr	C
1	RDIP	RDIP	Thesis - I	0	0	14	14
2	RDIP	RDIP	Industrial Practice	0	0	3	3
Semester Total				0	0	17	17

SEMESTER - IV							
S. No	Category	Sub-Category	Course Title	L	T/D	P/Pr	C
1	RDIP	RDIP	Thesis - II	0	0	15	15
Semester Total				0	0	15	15

Core Electives							
S. No	Category	Sub-Category	Course Title	L	T/D	P/Pr	C
1	CE	CE	Embedded Programming	3	1	0	4
2	CE	CE	Hardware Accelerators for IoT Edge Computing	3	0	1	4
3	CE	CE	Sensor Technology and MEMS	3	1	0	4
4	CE	CE	CAD for VLSI	3	0	1	4
5	CE	CE	More than Moore's electronics	3	1	0	4