

M.Tech.(VLSI & Embedded Systems)
Course Structure and Syllabus
Academic Regulations : 2014-15

I YEAR - I Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal marks	External marks
1.	4T101	VLSI Technology and Design	4	-	-	3	40	60
2.	4T102	CPLD & FPGA Architectures and Applications	4	-	-	3	40	60
3.	4U101	Digital System Design	4	-	-	3	40	60
4.	4U103	Advanced Microprocessors and Microcontrollers	4	-	-	3	40	60
5.	4T103 4T104 4T105	Elective-I	4	-	-	3	40	60
6.	4U104 4T106 4T107	Elective-II	4	-	-	3	40	60
7.	4T171	Simulation Lab (VLSI)	-	-	6	2	40	60
8.	4T172	Technical Paper Writing and Seminar	-	-	3	2	50	-
		Total	24	-	9	23	330	420

I YEAR - II Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal marks	External marks
1.	4T201	System on Chip Architecture	4	-	-	3	40	60
2.	4U201	Design of Fault Tolerant Systems	4	-	-	3	40	60
3.	4T202	Embedded Real Time Operating Systems	4	-	-	3	40	60
4.	4U202	CMOS Analog & Mixed Signal Design	4	-	-	3	40	60
5.	4ZC47 4S120 4S221 4S222	Open Elective	4	-	-	3	40	60
6.	4U105 4U203 4T203	Elective-III	4	-	-	3	40	60
7.	4T271	Embedded Systems Lab	-	-	6	3	40	60
8.	4T272	Technical Seminar (Independent Review Paper)	-	-	3	2	50	-
		Total	24	-	9	23	330	420

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II YEAR – I Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal marks	External Marks
1.	4T371	Comprehensive Viva-Voce	-	-	-	2	-	50
2.	4T372	Project Seminar	-	-	-	2	50	-
3.	4T373	Project Work (Part I)	-	-	-	18	Grading*	-
Total			-	-	-	22	50	50

*Grading – Excellent/ Good/ Satisfactory/ Unsatisfactory

II YEAR – II Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal marks	External Marks
1.	4T471	Project Seminar	-	-	-	2	50	-
2.	4T472	Project Work and Dissertation	-	-	-	20	-	Grading*
Total			-	-	-	22	50	-

*Grading – Excellent / Good/ Satisfactory/ Unsatisfactory

ELECTIVE I

- 1) 4T103 - Hardware Software Co-Design
- 2) 4T104 - Device Modeling
- 3) 4T105 - Algorithms for VLSI Design Automation

ELECTIVE II

- 1) 4U104 - Advanced Digital Signal Processing
- 2) 4T106 - Low Power VLSI Design
- 3) 4T107 - Nanoelectronics

OPEN ELECTIVE

- 1) 4ZC47 - Entrepreneurship and Innovation
- 2) 4S120 - Network Security & Cryptography
- 3) 4S221 - Advanced Operating Systems
- 4) 4S222 - Research Methodology

ELECTIVE III

- 1) 4U105 - Image & Video Processing
- 2) 4U203 - Digital Signal Processors and Architectures
- 3) 4T203 - Semiconductor Memory Design & Testing