

M.Tech. (Digital Systems & Computer Electronics)
Course Structure and Syllabus
Academic Regulations: 2015-16

Regulation : A15

I YEAR - I Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal marks	External marks
1.	5U101	Digital System Design	3	1	-	3	30	70
2.	5U102	Advanced Data Communications	3	1	-	3	30	70
3.	5U103	Advanced Microprocessors and Microcontrollers	3	1	-	3	30	70
4.	5T101	VLSI Technology and Design	3	1	-	3	30	70
5.	5U104 5U105 5S110	Elective-I	3	1	-	3	30	70
6.	5T102 5S124	Elective-II	3	1	-	3	30	70
7.	5T108	Research Methodology	1	1	-	1	30	70
8.	5U171	Simulation Lab (VHDL)	-	-	3	2	20	30
9.	5U172	Literature Review Seminar -1	-	-	3	1	25	-
10.	5U173	Literature Review Seminar -2	-	-	3	1	25	-
11.	5U174	Comprehensive Viva-Voce-1	-	-	-	1	50	-
		Total	18	6	9	24	330	520

I YEAR - II Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal marks	External Marks
1.	5S223	Advanced Computer Architecture	3	1	-	3	30	70
2.	5T106	Low Power VLSI Design	3	1	-	3	30	70
3.	5U201	Design of Fault Tolerant Systems	3	1	-	3	30	70
4.	5T202	Embedded Real Time Operating Systems	3	1	-	3	30	70
5.	5ZC47 5S120 5S221 5S222	Open Elective	3	1	-	3	30	70
6.	5T201 5U202 5U203 5U204	Elective-III	3	1	-	3	30	70
7.	5U271	Embedded Systems Lab	-	-	3	2	20	30
8.	5U272	Literature Review Seminar -3	-	-	3	1	25	-
9.	5U273	Project Seminar-1	-	-	3	2	25	-
10.	5U274	Comprehensive Viva-Voce-2	-	-	-	1	50	-
		Total	18	6	9	24	310	450

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II YEAR – I Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal Marks	External Marks
1.	5U371	Project Seminar-2	-	-	-	2	50	-
2.	5U372	Project Seminar-3	-	-	-	2	50	-
3.	5U373	Project Work (Part I) Project Status Report	-	-	-	20	Grading*	-
Total			-	-	-	24	100	-

*Grading – Excellent/ Good/ Satisfactory/ Unsatisfactory

II YEAR – II Semester

Sl. No.	Code	Subject	L	T	P	Credits	Internal Marks	External Marks
1.	5U471	Project Seminar-4	-	-	-	2	50	-
	5U472	Pre submission Seminar	-	-	-	2	50	-
2.	5U473	Project Work and Dissertation	-	-	-	20	-	Grading*
Total			-	-	-	24	100	-

*Grading – Excellent/ Good/ Satisfactory/ Unsatisfactory

ELECTIVE I

- 1) 5U104 - Advanced Digital Signal Processing
- 2) 5U105 - Image & Video Processing
- 3) 5S110 - Advanced Computer Networks
- 4) 5T103 - Hardware Software Co-Design
- 5) 5T112 - Embedded Networking
- 6) 5T108 - Hardware Description Languages and FPGA Based Design

ELECTIVE II

- 1) 5T102 - CPLD & FPGA Architectures and Applications
- 2) 5S124 - Internetworking
- 3) 122EP21 - Digital Control Systems
- 4) 5T110 - Embedded Control Systems
- 5) 5U106 - Embedded Systems for Wireless and Mobile Communications
- 6) 5T111 - CAD for VLSI Circuits
- 7) 5T204 - Testing of VLSI Circuits

OPEN ELECTIVE

- 1) 5ZC47 - Entrepreneurship and Innovation
- 2) 5S120 - Network Security & Cryptography
- 3) 5S221 - Advanced Operating Systems
- 4) 5T205 - Embedded Linux

ELECTIVE III

- 1) 5T201 - System on Chip Architecture
- 2) 5U202 - CMOS Analog & Mixed Signal Design
- 3) 5U203 - Digital Signal Processors and Architectures
- 4) 5U204 - Radar Signal Processing
- 5) 5U205 - Adhoc & Wireless Sensor Networks
- 6) 5U206 - RF System Design