



**MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AUTONOMOUS)**

**M.TECH in EMBEDDED SYSTEMS
COURSE STRUCTURE & SYLLABUS (R20)**

Applicable From 2020-21 Admitted Batch

I M.Tech - I Sem

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (SEE)	Total
1	2015503	Microcontrollers & Programmable Digital Signal Processors	PC	3	0	0	3	30	70	100
2	2015504	System Design with Embedded Linux	PC	3	0	0	3	30	70	100
3	201550X	Professional Elective - I	PE	3	0	0	3	30	70	100
4	20155XX	Professional Elective - II	PE	3	0	0	3	30	70	100
5	2015521	Microcontrollers & Programmable Digital Signal Processors Lab	PC	0	0	3	2	30	70	100
6	2015522	System Design with Embedded Linux Lab	PC	0	0	3	2	30	70	100
7	2015502	Research Methodology & IPR	MC-I	2	0	0	2	30	70	100
8	20155XX	Audit Course - I	AC-I	2	0	0	0	-	-	-
TOTAL				16	0	6	18	210	490	700

I M.Tech - II Sem

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (SEE)	Total
1	2025505	RTL Simulation and Synthesis with PLDs	PC	3	0	0	3	30	70	100
2	2025506	Advanced Digital Signal Processing	PC	3	0	0	3	30	70	100
3	20255XX	Professional Elective - III	PE	3	0	0	3	30	70	100
4	20255XX	Professional Elective - IV	PE	3	0	0	3	30	70	100
5	2025523	RTL Simulation and Synthesis with PLDs Lab	PC	0	0	3	2	30	70	100
6	2025524	Advanced Digital Signal Processing Lab	PC	0	0	3	2	30	70	100
7	2025525	Mini Project with Seminar	PS	0	0	4	2	30	70	100
8	20255XX	Audit Course- II	AC-II	2	0	0	0	-	-	-
TOTAL				14	0	10	18	210	490	700



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II M.Tech - I Sem

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (SEE)	Total
1		Professional Elective - V	PE	3	0	0	3	30	70	100
2		Open Elective	OE	3	0	0	3	30	70	100
3	2035526	Dissertation Phase -I	PS	0	0	12	6	100	0	100
TOTAL				6	0	12	12	160	140	300

II M.Tech - II Sem

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (SEE)	Total
1	2045527	Dissertation Phase -II	PS	0	0	12	6	100	0	100
	2045528	Dissertation Viva-Voce	PS	0	0	28	14	0	100	100
TOTAL				0	0	40	20	100	100	200

Audit Course – I & II

S. No.	Course Code	Audit Course Title
1	2015528	English for Research Paper Writing and its Significance
2	2015529	Disaster Management
3	2015530	Sanskrit for Technical Knowledge
4	2015531	Value Education
5	2025532	Constitution of India in Practice
6	2025533	Pedagogy Studies
7	2025534	Stress Management by Yoga
8	2025535	Personality Development Through Life Enlightenment Skills



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Professional Elective (PE) Courses

Professional Elective-I

S. No.	Course Code	Course Title
1	2015507	Programming Languages for Embedded Software
2	2015508	AI & Machine Learning
3	2015509	Computer Vision

Professional Elective-II

S. No.	Course Code	Course Title
1	2015510	Communication Buses & Interfaces
2	2015511	Parallel Processing
3	2015512	Advanced Computer architecture

Professional Elective-III

S. No.	Course Code	Course Title
1	2025513	IoT & Applications
2	2025514	VLSI Signal Processing
3	2025515	SOC Architecture

Professional Elective-IV

S. No.	Course Code	Course Title
1	2025516	Hardware Software Co-Design
2	2025517	Network Security and Cryptography
3	2025518	Physical Design Automation

Professional Elective-V

S. No.	Course Code	Course Title
1	2035519	Scripting Languages
2	2035520	Memory Technologies
3	2035521	Wireless Sensor Networks

Open Elective (OE) Course

S. No.	Course Code	Course Title
1	2035501	VLSI & Embedded Systems