



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

**M.TECH in EMBEDDED SYSTEMS  
COURSE STRUCTURE & SYLLABUS (R19)**

**Applicable For 2019-20 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	1915502	Microcontrollers & Programmable Digital Signal Processors	PC	3	0	0	3	30	70	100
2	1915503	System Design with Embedded Linux	PC	3	0	0	3	30	70	100
3	191550X	Professional Elective - I	PE	3	0	0	3	30	70	100
4	19155XX	Professional Elective - II	PE	3	0	0	3	30	70	100
5	1915521	Microcontrollers & Programmable Digital Signal Processors Lab	PC	0	0	3	2	30	70	100
6	1915522	System Design with Embedded Linux Lab	PC	0	0	3	2	30	70	100
7	1915501	Research Methodology & IPR	MC-I	2	0	0	2	30	70	100
8	19155XX	Audit Course - I	AC-I	2	0	0	0	-	-	-
<b>TOTAL</b>				<b>16</b>	<b>0</b>	<b>6</b>	<b>18</b>	<b>210</b>	<b>490</b>	<b>700</b>

**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	1925504	RTL Simulation and Synthesis with PLDs	PC	3	0	0	3	30	70	100
2	1925505	Advanced Digital Signal Processing	PC	3	0	0	3	30	70	100
3	19255XX	Professional Elective - III	PE	3	0	0	3	30	70	100
4	19255XX	Professional Elective - IV	PE	3	0	0	3	30	70	100
5	1925523	RTL Simulation and Synthesis with PLDs Lab	PC	0	0	3	2	30	70	100
6	1925524	Advanced Digital Signal Processing Lab	PC	0	0	3	2	30	70	100
7	1925525	Mini Project with Seminar	PS	0	0	4	2	30	70	100
8	19255XX	Audit Course- II	AC-II	2	0	0	0	-	-	-
<b>TOTAL</b>				<b>14</b>	<b>0</b>	<b>10</b>	<b>18</b>	<b>210</b>	<b>490</b>	<b>700</b>



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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	19355XX	Professional Elective - V	PE	3	0	0	3	30	70	100
2	19355XX	Open Elective	OE	3	0	0	3	30	70	100
3	1935526	Dissertation Work Review - II	PS	0	0	12	6	100	0	100
<b>TOTAL</b>				<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>160</b>	<b>140</b>	<b>300</b>

**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	1945527	Dissertation Work Review - III	PS	0	0	12	6	100	0	100
2	1945528	Dissertation Viva-Voce	PS	0	0	28	14	0	100	100
<b>TOTAL</b>				<b>0</b>	<b>0</b>	<b>40</b>	<b>20</b>	<b>100</b>	<b>100</b>	<b>200</b>



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**Audit Course – I & II**

<b>S. No.</b>	<b>Course Code</b>	<b>Audit Course Title</b>
1	1915528	English for Research Paper Writing
2	1915529	Disaster Management
3	1915530	Sanskrit for Technical Knowledge
4	1915531	Value Education
5	1925532	Constitution of India
6	1925533	Pedagogy Studies
7	1925534	Stress Management by yoga
8	1925535	Personality Development Through Life Enlightenment Skills



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**Professional Elective (PE) Courses**

**Professional Elective-I**

S. No.	Course Code	Course Title
1	1915506	Programming Languages for Embedded Software
2	1915507	AI & Machine Learning
3	1915508	Computer Vision

**Professional Elective-II**

S. No.	Course Code	Course Title
1	1915509	Communication Buses & Interfaces
2	1915510	Parallel Processing
3	1915511	Advanced Computer architecture

**Professional Elective-III**

S. No.	Course Code	Course Title
1	1925512	IOT & Applications
2	1925513	VLSI Signal Processing
3	1925514	SOC Architecture

**Professional Elective-IV**

S. No.	Course Code	Course Title
1	1925515	Hardware Software Co-Design
2	1925516	Network Security and Cryptography
3	1925517	Physical Design Automation

**Professional Elective-V**

S. No.	Course Code	Course Title
1	1935519	Scripting Languages
2	1935520	Memory Technologies
3	1935521	Wireless Sensor Networks

**Open Elective (OE) Course for Other Branches**

S. No.	Course Code	Course Title
1	1935501	Fundamentals of Nano Technology