



**VISHNU INSTITUTE OF TECHNOLOGY:: BHIMAVARAM**  
**(Autonomous)**

Approved by AICTE, Accredited by NAAC-A<sup>++</sup>, & Affiliated to JNTUK, Kakinada

**COURSE STRUCTURE & DETAILED SYLLABUS**

**For PG-R19**

**M. Tech- Advanced Manufacturing Systems**

**(Applicable for batches admitted from 2019-2020)**



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**BHIMAVARAM**



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**Department of Mechanical Engineering**

**Course Structure**

**M.Tech (Advanced Manufacturing Systems)**

**(With Effect from 2019-2020)**

**I Semester**

S.No.	Subject	L	P	C
1	Automation in Manufacturing	3	--	3
2	Special Manufacturing Processes	3	--	3
3	<b>Programme Elective I</b> Industrial Robotics Intelligent Manufacturing Systems Total Quality Management	3	--	3
4	<b>Programme Elective II</b> Advanced CAD Mechatronics Precision Engineering	3	--	3
5	Research Methodology	2	--	2
6	Advanced CAD/CAM Lab	--	4	2
7	Robotics Lab	--	4	2
8	English for Research Paper Writing	2	--	0
	<b>Total</b>	16	8	<b>18</b>

**II Semester**

S.No.	Subject	L	P	C
1	Modeling and Simulation of Manufacturing Systems	3	--	3
2	Product Design	3	--	3
3	<b>Programme Elective III</b> Finite Element Methods Concurrent Engineering Design and Manufacturing of MEMS and Microsystems	3	--	3
4	<b>Programme Elective IV</b> Production and Operations Management Materials Technology Computational Fluid Dynamics	3	--	3
5	Manufacturing Simulation and Precision Engg. Lab	--	4	2
6	Product Design Lab	--	4	2
7	Pedagogy Studies	2	--	0
8	Mini Project	--	4	2
	<b>Total</b>	14	12	<b>18</b>

**III Semester**

<b>S.No.</b>	<b>Subject</b>	<b>L</b>	<b>P</b>	<b>C</b>
1	<b>Programme Elective V</b> Advances in CNC Technologies Design for Manufacturing and Assembly Advanced Materials	3	--	3
2	<b>Open Elective</b> Quality Engineering in Manufacturing Reliability Engineering Design of Experiments	3	--	3
3	Dissertation Phase – I	--	20	10
	<b>Total</b>	6	20	<b>16</b>

**IV Semester**

<b>S.No.</b>	<b>Subject</b>	<b>L</b>	<b>P</b>	<b>C</b>
1	Dissertation Phase – II	--	32	16
	<b>Total</b>	--	32	<b>16</b>