



VidyaJyothi Institute of Technology (Autonomous)

(Accredited by NBA, Approved By A.I.C.T.E., New Delhi, Permanently Affiliated to JNTU, Hyderabad)

(Aziz Nagar, C.B.Post, Hyderabad -500075)

R19 Regulations---M.Tech. (CAD/CAM)

I Year – I Semester

| Subject Code | Category | Course Title | L | T | P,D | C |
|----------------------|-----------|---|-----------|----|----------|-----------|
| 19D3CS1101 | PC-1 | Advanced CAD | 4 | -- | -- | 4 |
| 19D3CS1102 | PC-2 | Computer Aided Manufacturing | 4 | -- | -- | 4 |
| 19D3CS1103 | PC-3 | Advanced FEM | 4 | -- | -- | 4 |
| 19D3E11101 | PE-1 | 1. Mechanical Behaviour of Materials | 3 | -- | -- | 3 |
| 19D3E11102 | | 2. Stress Analysis and Vibration | | | | |
| 19D3E11103 | | 3. Additive Manufacturing Technologies | | | | |
| 19D3E21101 | PE-2 | 1. Automation in Manufacturing | 3 | -- | -- | 3 |
| 19D3E21102 | | 2. Computer Aided Process Planning | | | | |
| 19D3E21103 | | 3. Performance Modeling and Analysis of Manufacturing Systems | | | | |
| 191EOE1102 | OE-1 | 1. Optimization Techniques and applications | 3 | -- | -- | 3 |
| 19D3LB1101 | PC LAB-1 | Advanced CAD,CAM LAB | -- | -- | 3 | 2 |
| 19D3SM1101 | Seminar I | Seminar-I | -- | -- | 3 | 2 |
| Total Credits | | | 21 | | 6 | 25 |

I Year – II Semester

| Subject Code | Category | Course Title | L | T | P,D | C |
|----------------------|------------|---|-----------|----|----------|-----------|
| 19D3CS1204 | PC-4 | Design for Manufacturing And Assembly | 4 | -- | -- | 4 |
| 19D3CS1205 | PC-5 | Flexible Manufacturing Systems | 4 | -- | -- | 4 |
| 19D3CS1206 | PC-6 | Industrial Robotics | 4 | -- | -- | 4 |
| 19D3E31101 | PE-3 | 1. Intelligent Manufacturing Systems | 3 | -- | -- | 3 |
| 19D3E31102 | | 2. Special Manufacturing Process | | | | |
| 19D3E31103 | | 3. Optimization Techniques and Applications | | | | |
| 19D3E41101 | PE-4 | 1. Advanced Mechatronics | 3 | -- | -- | 3 |
| 19D3E41102 | | 2. MEMS and Micro Systems: Design and Manufacture | | | | |
| 19D3E41103 | | 3. Fuzzy Logic and Neural Networks | | | | |
| 191EOE1202 | OE-2 | 1. Engineering Research and Methodology | 3 | -- | -- | 3 |
| 19D3LB1201 | PC LAB -2 | Computer Aided Modeling and Analysis Lab | -- | -- | 3 | 2 |
| 19D3SM1201 | Seminar II | Seminar-II | -- | -- | 3 | 2 |
| Total Credits | | | 21 | | 6 | 25 |

II Year - I Semester

| Subject Code | Course Title | L | T | P,D | C |
|----------------------|-------------------------|----|----|-----------|-----------|
| 19D3CS1207 | Technical paper writing | -- | 3 | -- | 2 |
| 19D3CV2101 | Comprehensive Viva-Voce | -- | -- | -- | 4 |
| 19D3PW2101 | Project work Review I | -- | -- | 22 | 8 |
| Total Credits | | | | 22 | 14 |

II Year - II Semester

| Subject Code | Course Title | L | T | P,D | C |
|----------------------|--------------------------------|----|----|-----------|-----------|
| 19D3PW2202 | Project work Review II | -- | -- | 24 | 8 |
| 19D3PE2201 | Project Evaluation (Viva-Voce) | -- | -- | -- | 16 |
| Total Credits | | -- | -- | 24 | 24 |

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M.Tech R15 Regulations

M.Tech. (CAD/CAM) COURSE STRUCTURE AND SYLLABUS

I Year – I Semester

| Subject Code | Category | Course Title | L | P | C |
|----------------------|------------------|--|-----------|----------|-----------|
| 15D3CS1101 | Core Course I | Advanced CAD | 4 | -- | 4 |
| 15D3CS1102 | Core Course II | Computer Aided Manufacturing | 4 | -- | 4 |
| 15D3CS1103 | Core Course III | Advanced FEM | 4 | -- | 4 |
| 15D3E11101 | Core Elective I | Mechanical Behaviour of Materials | 4 | -- | 4 |
| 15D3E11102 | | Stress Analysis and Vibration | | | |
| 15D3E11103 | | Rapid Prototyping Technologies | | | |
| 15D3E21101 | Core Elective II | Automation in Manufacturing | 4 | -- | 4 |
| 15D3E21102 | | Computer Aided Process Planning | | | |
| 15D3E21103 | | Performance Modeling and Analysis of Manufacturing Systems | | | |
| 15D3OE1101 | Open Elective I | Numerical Methods for Partial Differential Equations | 4 | -- | 4 |
| 15D3OE1102 | | Production and Operations Management | | | |
| 15D3LB1101 | Laboratory I | Laboratory | -- | 4 | 2 |
| 15D3SM1101 | Seminar I | Seminar | -- | 4 | 2 |
| Total Credits | | | 24 | 8 | 28 |

I Year – II Semester

| Subject Code | Category | Course Title | L | P | C |
|----------------------|-------------------|--|-----------|----------|-----------|
| 15D3CS1204 | Core Course IV | Design for Manufacturing And Assembly | 4 | -- | 4 |
| 15D3CS1205 | Core Course V | Flexible Manufacturing Systems | 4 | -- | 4 |
| 15D3CS1206 | Core Course VI | Industrial Robotics | 4 | -- | 4 |
| 15D3E31201 | Core Elective III | Intelligent Manufacturing Systems | 4 | -- | 4 |
| 15D3E31202 | | Special Manufacturing Process | | | |
| 15D3E31203 | | Design Optimization | | | |
| 15D3E41201 | Core Elective IV | Advanced Mechatronics | 4 | -- | 4 |
| 15D3E41202 | | Design and Manufacturing of MEMS and Micro Systems | | | |
| 15D3E41203 | | Fuzzy Logic and Neural Networks | | | |
| 15D3OE1201 | Open Elective II | Engineering Research and Methodology | 4 | -- | 4 |
| 15D3OE1202 | | Quality Engineering in Manufacturing | | | |
| 15D3LB1201 | Laboratory II | Manufacturing Simulation & Precision Engineering Lab | -- | 4 | 2 |
| 15D3SM1201 | Seminar II | Seminar | -- | 4 | 2 |
| Total Credits | | | 24 | 8 | 28 |

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M.Tech R15 Regulations

II Year - I Semester

| Subject Code | Course Title | L | P | C |
|--------------|-------------------------|----|----|-----------|
| 15D3CV2101 | Comprehensive Viva-Voce | -- | -- | 4 |
| 15D3PW2101 | Project work Review I | -- | 24 | 12 |
| | Total Credits | -- | 24 | 16 |

II Year - II Semester

| Subject Code | Course Title | L | P | C |
|--------------|--------------------------------|----|----|-----------|
| 15D3PW2202 | Project work Review II | -- | 8 | 4 |
| 15D3PE2201 | Project Evaluation (Viva-Voce) | -- | 16 | 12 |
| | Total Credits | -- | 24 | 16 |