# M.Tech (ECE)
## With Specialization in
## Machine Learning &Signal Processing

### FIRST SEMESTER

| Sl. No | Course Code | Title | Contact Hours | | | | Credits |
|---|---|---|---|---|---|---|---|
| | | | L | T | P | Total | |
| 1. | 17M11EC118 | Advanced Digital Signal Processing | 3 | - | - | 3 | 3 |
| 2. | 20M41EC117 | Advanced Digital Communication Systems | 3 | - | - | 3 | 3 |
| 3. | | DE-I | 3 | - | - | 3 | 3 |
| 4. | | DE-II | 3 | - | - | 3 | 3 |
| 5. | 18M11GE111 | Research Methodology and Intellectual Property Rights | 2 | - | - | 2 | 2 |
| 6. | 20M35EC111 | Advanced Signal Processing Lab (MATLAB/PYTHON) | - | - | 2 | 2 | 1 |
| 7. | 20M45EC111 | Advanced Communication Systems Lab-1 | | | 2 | 2 | 1 |
| 8 | 20M55EC113 | Microelectronics and IOT Lab-1 | | | 2 | 2 | 1 |
| | | TOTAL | | | | 20 | 17 |

### SECOND SEMESTER

| Sl. No | Course Code | Title | Contact Hours | | | | Credits |
|---|---|---|---|---|---|---|---|
| | | | L | T | P | Total | |
| 1. | 17M11EC121 | Statistical Signal Processing | 3 | - | - | 3 | 3 |
| 2. | 20M31EC115 | Deep Learning and Applications | 3 | - | - | 3 | 3 |
| 3. | | DE-II | 3 | - | - | 3 | 3 |
| 4. | | DE – III | 3 | - | - | 3 | 3 |
| 5. | | DE-V | 3 | - | - | 3 | 3 |
| 6. | | Audit-I | 2 | - | - | 2 | Qualifying |
| 7. | 17M11EC120 | Project Based Learning - I | | | | 4 | 2 |
| 8. | | Machine Learning Lab (Python) | - | - | 6 | 6 | 3 |
| | | TOTAL | | | | 27 | 20 |

## THIRD SEMESTER

| Sl. No | Course Code | Title | Contact Hours | | | | Credits |
|---|---|---|---|---|---|---|---|
| | | | L | T | P | Total | |
| 1. | | Open Electives | 3 | - | - | 3 | 3 |
| 2. | 17M17EC218 | Seminar & Term Paper **OR** Earn credits by transfer eg. MOOCs, Course Work at another Institute, Supervised Study | | | | 4 | 4 |
| 3. | 17M15EC114 | Project Based Learning - II | | | | 8 | 4 |
| 4. | 17M17EC219/ 17M17EC220/ 17M17EC221 | Dissertation /Industrial Project /Entrepreneurial Project | | | | 8 | 4 |
| | | Audit-II | 2 | | | 2 | Qualifying |
| | | TOTAL | | | | 25 | 15 |

## FOURTH SEMESTER

| Sl. No | Course Code | Title | Contact Hours | | | | Credits |
|---|---|---|---|---|---|---|---|
| | | | L | T | P | Total | |
| 1. | 17M17EC222/ 17M17EC223/ 17M17EC224 | Dissertation /Industrial Project/Entrepreneurial Project | | | | 32 | 16 |
| | | TOTAL | | | | 32 | 16 |

**TOTAL CREDITS:68**

## Courses for Audit-I and II:
1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through life enlightenment skills

## Subjects for Open Electives:
1. Business Analytics
2. Industrial Safety
3. Operations Research
4. Cost Management of Engineering Projects
5. Composite Materials
6. Waste to Energy
7. Waste to Energy

## Departmental Electives:

1. Soft Computing
2. Hybrid Intelligent Systems
3. DSP Architecture
4. Pattern Classification
5. Deep Learning for Natural Language Processing
6. Biomedical Signal Processing
7. Speech and Audio Signal processing
8. Digital Image and Video Processing
9. Multirate Signal Processing and Filter Banks
10. Introduction to IoT System Design
11. Introduction to machine Learning