**AVANTHI'S**
**St.THERESSA INSTITUTE OF**
Engineering & Technology
(Approved by AICTE, Recognised by the Govt. of A.P., & Affiliated to JNTU-GV, Vizianagaram)
**Garividi (Cheepurupalli) Vizianagaram Dist - 535101**
website : www.sttheressaengg.ac.in          email : astiet@sttheressaengg.ac.in

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## Program Name: Computer Science and Engineering (AI&ML)

Professional Elective and Open Electives for 4<sup>th</sup> year 1<sup>st</sup> Semester students and allocating subjects to faculty.

| OPEN ELECTIVE-III(1 OUT OF 8) | |
|---|---|
| 1.Basics of Signals and Systems | 0 out of 30 students chosen |
| 2. Electronic Measurements and Instrumentation | 0 out of 30 students chosen |
| 3. Principles of Signal Processing | 0 out of 30 students chosen |
| 4. Industrial Electronics | 0 out of 30 students chosen |
| 5. Consumer Electronics | 0 out of 30 students chosen |
| 6. Fundamentals of Microprocessors and Microcontrollers | 30 out of 30 students chosen |
| 7. Transducers and Sensors | 0 out of 30 students chosen |
| 8. IOT and Applications | 0 out of 30 students chosen |

| OPEN ELECTIVE-IV(1 OUT OF 2) | |
|---|---|
| 1. Concepts of Power System Engineering | 30 out of 30 students chosen |
| 2. Concepts of Smart Grid Technologies | 0 out of 30 students chosen |

| PROFESSIONAL ELECTIVE-III(1 OUT OF 5) | |
|---|---|
| 1.Reinforcement Learning | 0 out of 30 students chosen |
| 2.Soft Computing | 0 out of 30 students chosen |
| 3. Cryptography and Network Security | 0 out of 30 students chosen |
| 4. Block Chain Technologies | 30 out of 30 students chosen |
| 5. Speech Processing | 0 out of 30 students chosen |

| PROFESSIONAL ELECTIVE-IV(1 OUT OF 5) | |
|---|---|
| 1. Robotic Process Automation | 0 out of 30 students chosen |
| 2. Cloud Computing | 30 out of 30 students chosen |
| 3. Big Data Analytics | 0 out of 30 students chosen |

Phone : 08952-281061
Cell : 7893433345
9704755549

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| 4. NOSQL Databases | 0 out of  30 students chosen |
|---|---|
| 5. Video Analytics | 0 out of  30 students chosen |

| PROFESSIONAL  ELECTIVE-V(1 OUT OF 5) ||
|---|---|
| 1. Social Network Analysis | 0 out of  30 students chosen |
| 2. Recommender Systems | 0 out of  30 students chosen |
| 3. AI Chatbots | 0 out of  30 students chosen |
| 4. Object Oriented Analysis and Design | 30 out of  30 students chosen |
| 5. Semantic Web | 0 out of  30 students chosen |

4rd year 1nd  semester Open elective-III, Open elective-IV and Professional Elective-III, Professional Elective-IV, Professional Elective-V based on student's interests are:

**Open Elective-III**: Fundamentals of Microprocessors and Microcontrollers (FMPMC)

**Open Elective-IV**: Concepts of Power System Engineering (CPSE)

**Professional Elective-III**: Block Chain Technologies (BCT)

**Professional Elective-IV**: Cloud Computing (CC)

**Professional Elective-V**: Object Oriented Analysis and Design (OOAD)

Open Elective-I and Professional Elective-I subject for the 3$^{rd}$ Year 1$^{st}$ Semester Students.

| OPEN ELECTIVE-I  (1 OUT OF 3) | |
| --- | --- |
| 1. Renewable Energy Sources | 21out of  21 students chosen |
| 2. Electrical Machine Design | 0 out of  21 students chosen |
| 3. Intelligent Control Systems | 0 out of  21 students chosen |

| PROFESSIONAL  ELECTIVE-I (1 OUT OF 5) | |
| --- | --- |
| 1.Software Engineering | 21 out of  21 students chosen |
| 2. Digital Twin | 0 out of  21 students chosen |
| 3. Mobile Edge Computing | 0 out of  21 students chosen |
| 4. Optimization Techniques | 0 out of  21 students chosen |
| 5. SWAYAM/NPTEL Course | 0 out of  21 students chosen |

The finalized 3$^{rd}$ year 1$^{nd}$  semester Open Elective-I and Professional Elective-I based on students interests are:

   **Open Elective-I:** Renewable Energy Sources (RES)

   **Professional Elective-I**: Software Engineering (SE)