(066-CSE-03-02) CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

Significance of the Programme:

The significance of AI (Artificial Intelligence) and ML (Machine Learning) programs in Computer Science and Engineering (CSE) is substantial and multifaceted. AI and ML provide powerful tools for solving complex problems. They can be applied to various domains, including natural language processing, computer vision, robotics, and data analysis, enhancing the problem-solving capabilities of computer scientists and engineers. AI and ML algorithms can automate repetitive tasks, leading to increased efficiency. This course – CSE with specialization in Artificial Intelligence and Machine Learning enables the students to master the essential skills and have a profound impact on various aspects of the field, from problem-solving and automation to data analysis, innovation, and human-machine collaboration.

Career Options:

- Big Data Engineer
- Business Intelligence Developer
- Data Scientist
- Machine Learning Engineer
- AI Data Analyst.

Programme Objectives:

- Apply basic and advanced principles of Mathematics and Statistics, Science, Engineering, Machine learning and Artificial Intelligence in designing and developing solutions for real life problems using modern engineering tools.
- Have extensive and effective practical skills in Computer Science and Engineering with focus on Artificial Intelligence and Machine Learning for higher learning and scientific research in multidisciplinary areas.
- Engage in professional development through effective communication, teamwork, and entrepreneurship skills and adopt current trends through lifelong learning with encouragement towards ethical values.
- Apply design thinking and become more innovative in providing the solutions.

Outcomes of the Program:

- The ability to understand, analyze and demonstrate the knowledge of human cognition, Artificial Intelligence, Machine Learning and data engineering in terms of real world problems to meet the challenges of the future.
- The ability to develop computational knowledge and project development skills using innovative tools and techniques to solve problems in the areas related to Deep Learning, Machine learning, Artificial Intelligence.

Major Course Outlines:

- Mathematics for AI & ML
- Programming & Algorithms
- Databases & Storage Systems
- Network & Security
- AI & ML
- Prompt Engineering
- Computer Vision
- Recommender Systems
- Ethical and Social Implications of AI