Minor Degree in "Artificial Intelligence and Machine Learning"

Program Overview

The Minor Degree in AI & ML equips students with a strong foundation in artificial intelligence concepts, machine learning algorithms, and deep learning techniques. It focuses on practical skills to design intelligent systems and apply AI/ML to real-world challenges, complementing the CSE core curriculum.

Program Objectives

- Introduce core concepts and techniques in AI and machine learning.
- Enable students to analyze data and develop AI/ML models.
- Provide hands-on experience in implementing AI and ML solutions using modern tools and frameworks.
- Address real-world applications such as computer vision, natural language processing, and robotics.
- Develop problem-solving and critical thinking abilities in the context of AI and ML.

Program Structure

- The minor consists of 21 credits distributed over 07 Core Courses. These courses are to be taken up by students through MOOC (Swayam/NPTEL

Minor Degree in "Cyber Security"

Program Overview

The Minor Degree in Cyber Security aims to provide foundational and advanced knowledge in securing systems, networks, and software. The program equips students with hands-on skills to identify vulnerabilities, defend systems, and mitigate cyber threats while complementing the core CSE curriculum.

Program Objectives

- Introduce the fundamental principles of cybersecurity.
- Develop practical skills for securing systems, networks, and applications.
- Equip students with tools and techniques to detect, analyze, and respond to cyber threats.
- Instil an understanding of cryptography, risk management, and ethical hacking.
- Bridge the gap between theoretical knowledge and real-world cybersecurity challenges.

Program Structure

The minor consists of 22 credits distributed 07 Core Courses. These courses are to be taken up by students through MOOC (Swayam/NPTEL)

Minor Degree in "Internet of Things"

(Aligned with B. Tech – CSE & CSE (Cyber Security))

Program Overview

The Minor Degree in IoT aims to equip students with knowledge and practical skills in designing, developing, and deploying IoT systems. The program focuses on integrating hardware, software, and communication technologies to enable smart and connected systems, complementing the CSE core curriculum.

Program Objectives

1. Understand the fundamental concepts and architecture of IoT systems.
2. Learn about sensors, embedded systems, and communication protocols used in IoT.
3. Develop programming and networking skills for IoT applications.
4. Gain hands-on experience in building end-to-end IoT solutions.
5. Address security, data analytics, and real-world IoT challenges.

Program Structure

The minor consists of 20 credits distributed 07 Core Courses. These courses are to be taken up by students through MOOC (Swayam/NPTEL)