SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107
An Autonomous Institution
Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF MANAGEMENT STUDIES

Subject Code & Name : 19BA336 - ARTIFICIAL INTELLIGENCE

Semester & Year : IV& II Year

Unit 5: AI AND SOCIETY

Topic: Introduction to AI: Definition, brief history, and key concepts.

Introduction to AI

Artificial Intelligence (AI) is a branch of computer science that aims to create systems capable of performing tasks that typically require human intelligence. These tasks include understanding natural language, recognizing patterns, solving problems, learning from experience, and making decisions.

Definition of AI

AI can be defined as the simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions), and self-correction.

Key Concepts in AI

Machine Learning (ML)
Deep Learning
Natural Language Processing (NLP)
Computer Vision
Robotics
Ethical and Societal Implications

Narrow AI (Weak AI)

1. Virtual Personal Assistants
2. Image Recognition
3. Natural Language Processing (NLP)
4. Recommendation Systems

General AI (Strong AI)

Applications of AI: Healthcare, finance, transportation, etc.

Healthcare

Medical Imaging Analysis: AI algorithms can analyze medical images such as X-rays, MRIs, and CT scans to assist in the detection and diagnosis of diseases like cancer, fractures, and neurological disorders.

Drug Discovery and Development: AI is used to analyze biological data and identify potential drug candidates, speeding up the drug discovery process and reducing costs.

Finance

Algorithmic Trading: AI algorithms analyze market data, identify patterns, and execute trades at high speeds, enabling more efficient and accurate trading strategies.

Fraud Detection: AI systems can detect fraudulent transactions and activities by analyzing patterns, anomalies, and deviations from normal behavior, helping financial institutions prevent financial losses and maintain security.

Education

- Personalized Learning: AI-based educational platforms analyze student data and learning preferences to provide personalized learning experiences, adaptive tutoring, and targeted interventions, improving learning outcomes and engagement.
- Content Creation and Curation: AI algorithms generate educational content, quizzes, and assessments, and curate educational resources based on learning objectives, interests, and proficiency levels.

Thank you