Artificial Intelligence Fundamentals

Artificial Intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. AI systems are designed to perform tasks such as learning from data, reasoning, problem-solving, perception, and language understanding.

Key Topics Covered

Machine Learning: Algorithms that improve automatically through experience.

Natural Language Processing (NLP): Enabling machines to understand human language.

Computer Vision: Teaching computers to interpret visual information.

Robotics: Designing intelligent agents that can interact physically.

Ethical AI: Ensuring AI systems operate fairly and safely.

Practical Applications

AI technologies are applied in:

Speech recognition (e.g., virtual assistants)

Medical diagnosis and imaging

Autonomous vehicles

Recommendation systems

Fraud detection