Introduction to Artificial Intelligence

What is Artificial Intelligence (AI)?

Artificial Intelligence refers to the simulation of human intelligence in machines that are programmed to think and learn. These machines can perform tasks typically requiring human intelligence, such as visual perception, speech recognition, decision-making, and language translation.

Types of Artificial Intelligence

- Narrow AI: AI systems designed to handle a single or limited task. E.g., Siri or Google Assistant.

- General AI: Hypothetical AI with human-like cognitive abilities.

- Super AI: A level of intelligence far surpassing that of the best human minds.

Applications of AI

- Healthcare (diagnosis, robotic surgery)

- Finance (fraud detection, trading algorithms)

- Transportation (autonomous vehicles)

- Customer Service (chatbots, virtual assistants)

Advantages of AI

- Increased efficiency

- Automation of repetitive tasks

- Reduction in human error

- 24/7 availability

Challenges of AI

- Ethical concerns

- Job displacement

- Data privacy

- Bias in AI models