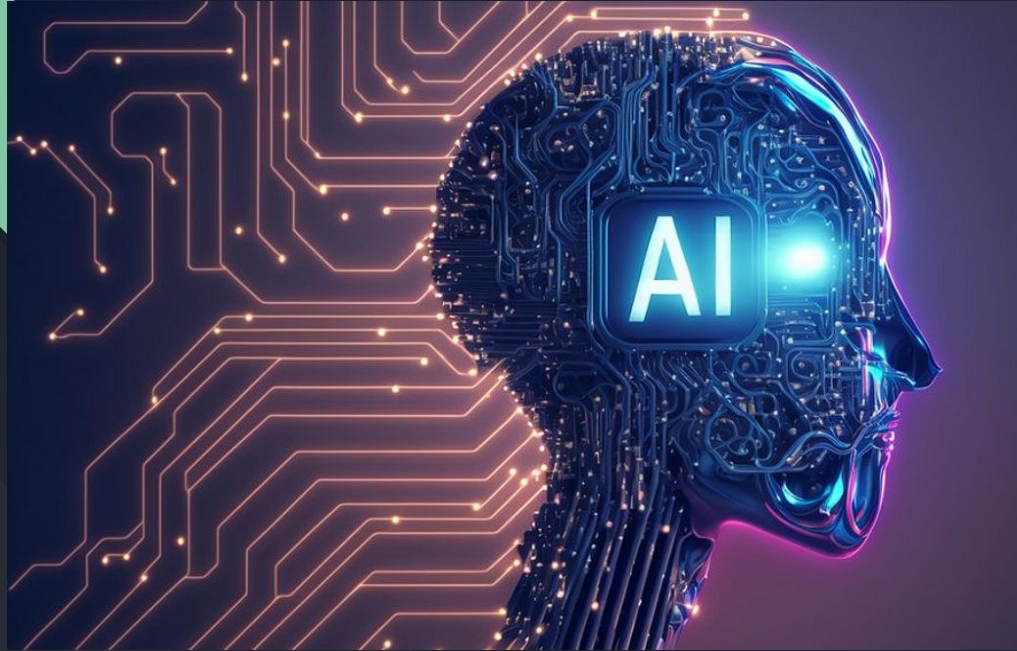# INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI)
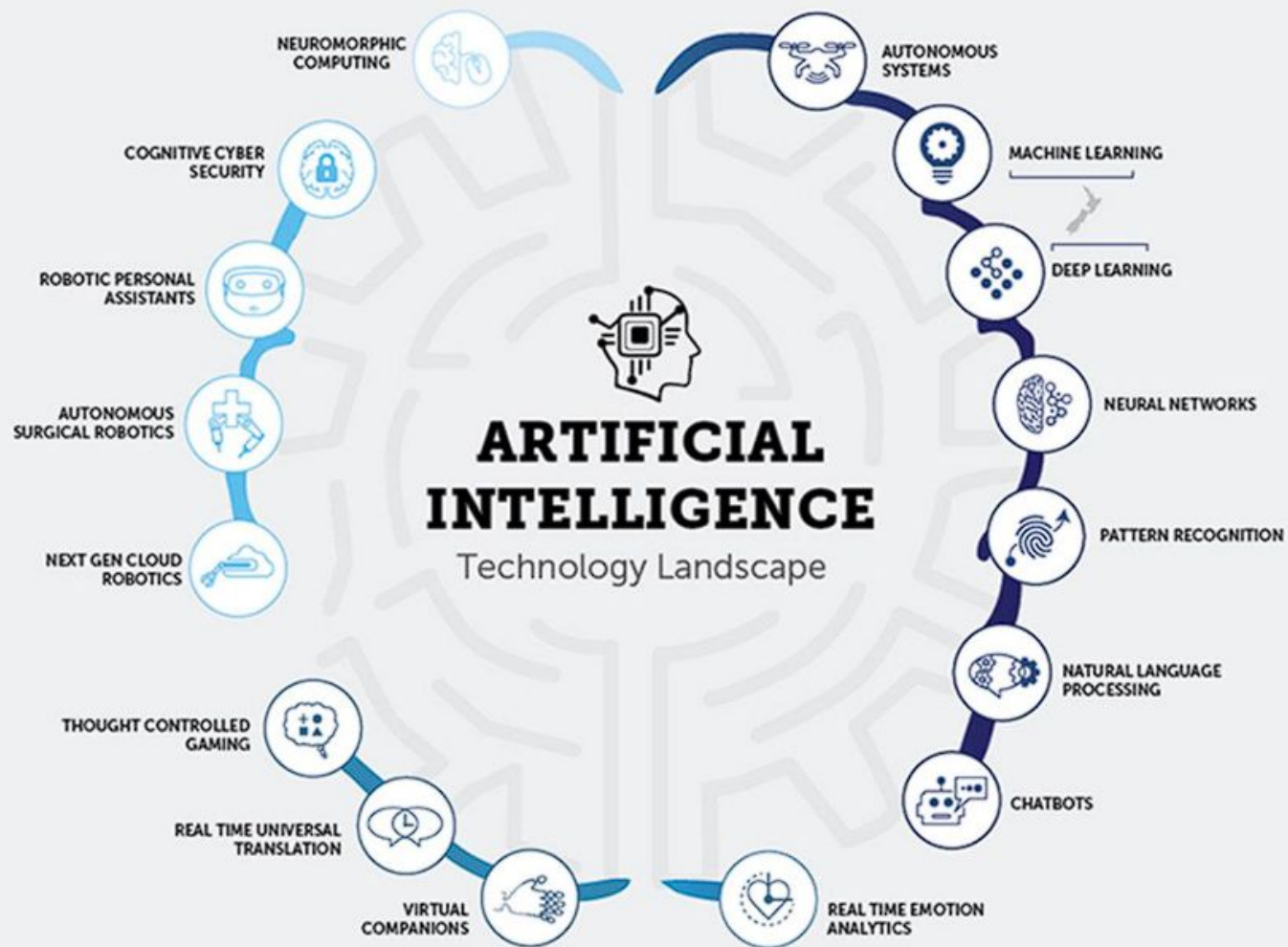
ALEENA ROY
MTECH
RIT

What is
Artificial
Intelligence

- AI (Artificial Intelligence) is the simulation of human intelligence in machines programmed to think, learn, and solve problems.
- AI is like teaching a machine to make decisions, similar to how humans use their experience and knowledge.
- AI is transforming the world by enabling machines to mimic human intelligence. It is already embedded in our daily lives and is shaping the future.

ARTIFICIAL INTELLIGENCE
Technology Landscape

NEUROMORPHIC COMPUTING

AUTONOMOUS SYSTEMS

COGNITIVE CYBER SECURITY

MACHINE LEARNING

ROBOTIC PERSONAL ASSISTANTS

DEEP LEARNING

AUTONOMOUS SURGICAL ROBOTICS

NEURAL NETWORKS

NEXT GEN CLOUD ROBOTICS

PATTERN RECOGNITION

THOUGHT CONTROLLED GAMING

NATURAL LANGUAGE PROCESSING

REAL TIME UNIVERSAL TRANSLATION

CHATBOTS

VIRTUAL COMPANIONS

REAL TIME EMOTION ANALYTICS

ARTIFICIAL INTELLIGENCE
A program that can sense, reason, act, and adapt

MACHINE LEARNING
Algorithms whose performance improve as they are exposed to more data over time

DEEP LEARNING
Subset of machine learning in which multilayered neural networks learn from vast amounts of data
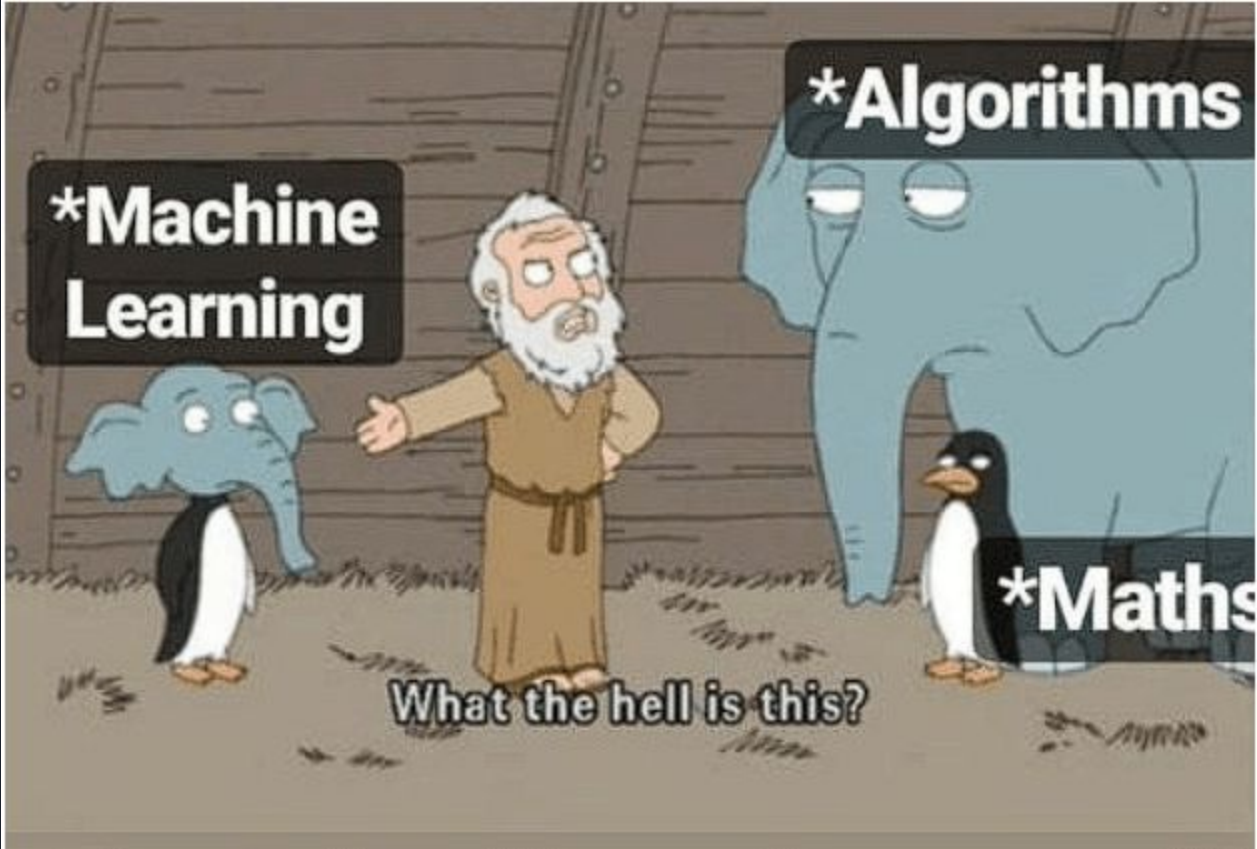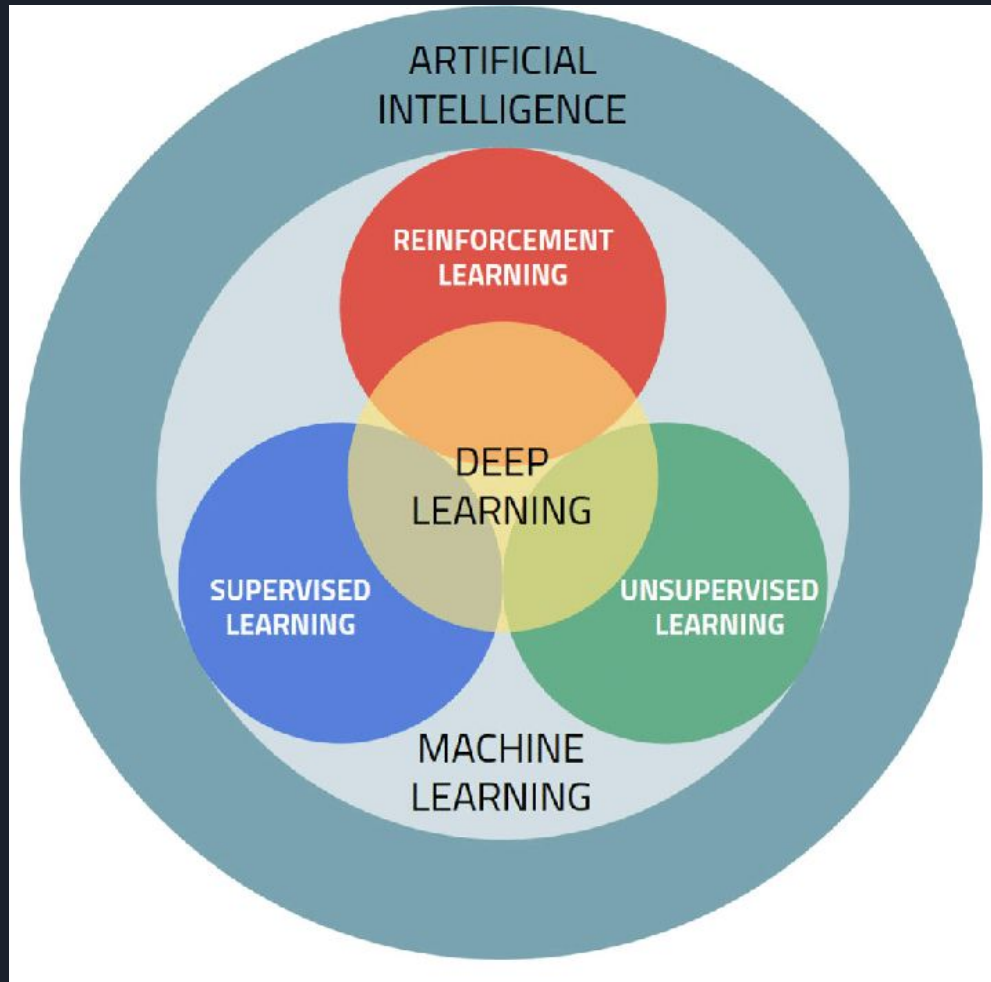
Machine Learning is a subset of AI where machines are trained to learn from data and make decisions or predictions without being explicitly programmed for specific tasks.

EG:SPAM

Neural Networks:

- Mimic the human brain to recognize patterns.
- Example: Image recognition in Facebook photo tagging.

Natural Language Processing (NLP):

- Enables machines to understand and generate human language.
- Example: ChatGPT or Google Translate.

Computer Vision:

- Helps machines interpret visual information.
- Example: Facial recognition in security systems.

APPLICATIONS OF AI

- Disease diagnosis, drug discovery, and robotic surgeries.

  Eg: AI detecting cancer in medical imaging.

- Personalized learning platforms like Duolingo.
- Fraud detection and stock market predictions.
- Autonomous vehicles (Tesla) and traffic management systems.
- Netflix recommendations and gaming (e.g., AI opponents in chess).

QUESTIONS???

THANKYOU