

Understand Artificial Intelligence :-

Introduction to AI :-

- * Artificial Intelligence is concerned With the design of Intelligence in an Artificial device
- * Term coined by McCarthy in 1956.
- * Allen Turing is called "Father of AI"
- * He Invented Turing Test.
- * Typical AI problems:-
 - 1) Intelligent entities need to be able to do both "mundane" & "Expert" tasks:-
 - * Mundane Tasks:-
 - planning Route, Activity.
 - Recognizing people, objects.
 - Communicating
 - Navigating found obstacles found on the street.
 - * Expert tasks:-
 - Medical diagnosis.
 - Mathematical problems.
- * Intelligent behaviour in humans
 - Perception.
 - Reasoning.
 - Learning.
 - understanding language.
 - solving Problems.

* Applications of AI:-

- Computer vision.
- Image Recognition.
- Robotics.
- Language processing.

* Practical Impact of AI:- copy machines, detecting credit card fraud, configuring products, Aiding complex planning tasks, Advising physicians.

* ALVIN (Autonomous Land vehicle in a Neural Network).

* Deep Blue:- It is a computer. In 1997 the Deep Blue beats the current world chess champion Garry Kasparov.

* Machine Translation

* Approaches to AI.

* Core areas:- Knowledge, Representation, Reasoning, Machine Learning.

* General Algorithms:- Search, Planning, Constraint Satisfaction

* Perception:- vision, Natural Language Robotics etc.

* Gaming, AI & Education, Probabilistic Approaches, etc.

* AI History.

* Agent & Environment:- Agent operates in an Environment
It perceives from the Environment.

* sensors & effectors.

* Rationality. — * Bounded & physical, perfect Rationality

* subsumption Architecture.

* Mobile Robot example.

* Goal based agent.