**Lecture 1: Intro to AI**

John McCarthy: Organised the first AI conference in 1956, created Lisp programming Language. First coined the term, defined it as the science of creating intelligent machines. From 1974 to 1980s is the AI winter as no one studied it or funded.

Turing Test: Created by Alan Turing in 1950, is a test for the machine to exhibit 8 sets of artificial behaviour imitating that of a human.

The Old version of the Turning test was (perform the turning test researchers would setup 3 terminals, one operated by a computer and two operated by human, the human will test both the computer and human and decide which answers came from which (this was done many times).)

There are two new types of Turing tests called, **Marcus Test** which measures the comprehension of a TV Show. **Lovelace test 2.0** which test its ability to create Art

Industry 4.0: The belief among proponents that smart manufacturing will become identified as the fourth industrial revolution.

Levels of automation:

Device Level – Actuators, Sensors, other hardware components

Machine Level – Industrial robots

Cell or System Levels – Manufacturing cell or system

Plant level -

Enterprise Level – Corporate information System

**Expert Systems:**

Knowledge Base: computer programs that contain technical knowledge of experts this is known as a knowledge base.

Interface Engine: working together with an algorithm to apply the knowledge to a specific problem.

**Data Mining:**

Computation process of analysing large amounts of data to find useful information and search for patterns.

Examples:

Ecommerce, manufacturing.

**Machine Learning:**

Computer algorithms that can learn on their own without being taught.

Machines are capable to learn and expand their knowledge through experience and observation.