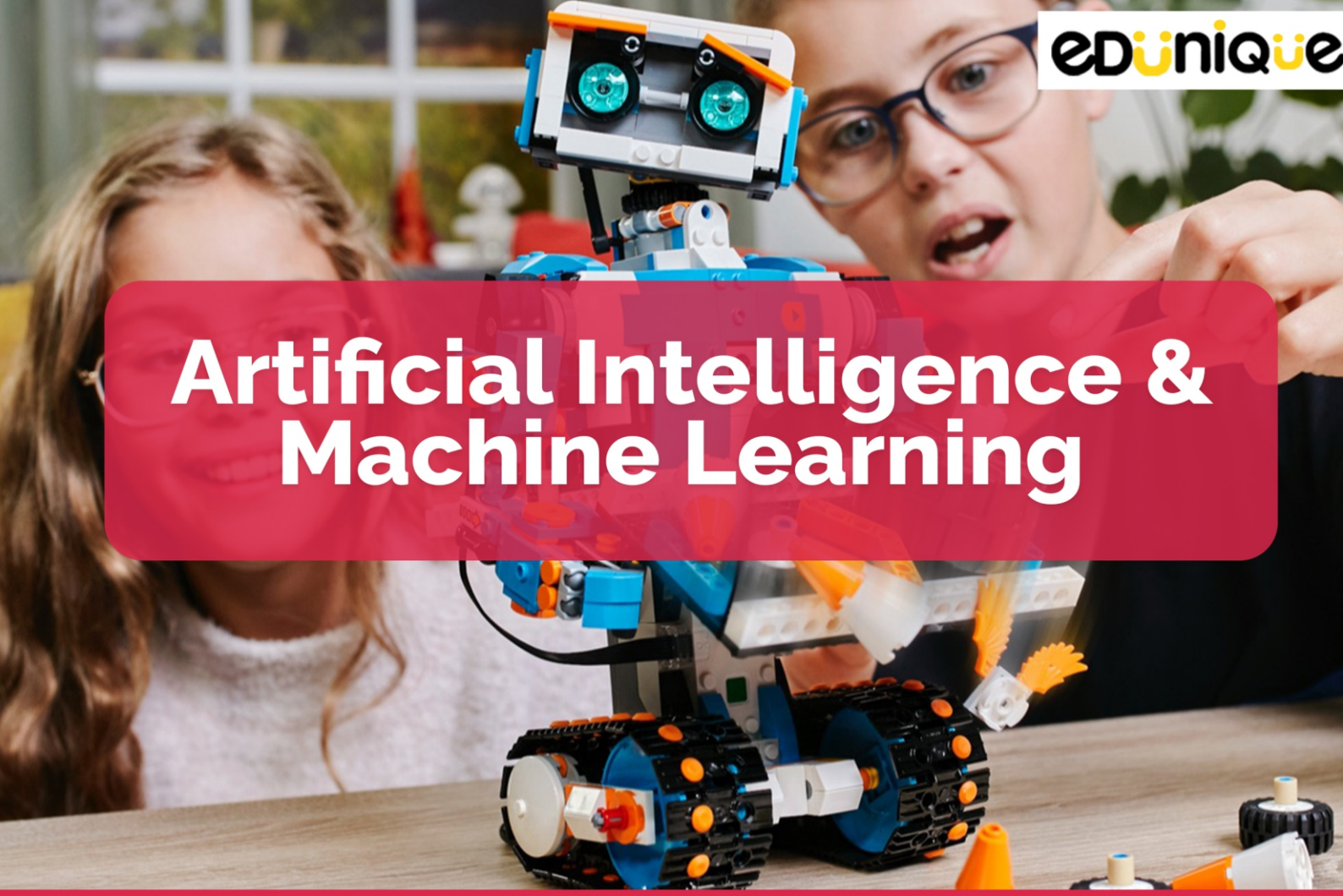

Artificial Intelligence & Machine Learning

Artificial intelligence is the ability of computer systems to perform tasks normally requiring human intelligence, such as visual recognition, speech translation and so on.

Outcome:

Artificial intelligence is a technology which enables a machine to simulate human behavior. Machine learning is a subset of AI which allows a machine to automatically learn from past data without programming explicitly. The goal of AI is to make a smart computer system like humans to solve complex problems.

Requirement :

- Software or App : Eduvance AI Tool & mBlock
- Required Laptop with internet connection
- No prior knowledge in programming

Artificial Intelligence & Machine Learning - With MBlock (Basics)

Unit - 1 : AI Service

Unit - 2 : Teachable Machine

Unit - 3 : Speech Recognition

Unit - 4 : Text Recognition

Unit - 5 : Image Recognition

Unit - 6 : Human Body Recognition

Unit - 7 : Natural Language Processing

Artificial Intelligence & Machine Learning - (Intermediate)

Session 1. Introduction to AI

Session 2. How does the human brain identify objects?

Session 3. How does the human brain estimate and predict?

Session 4. Making a machine identify objects

Session 5. Importance of data for AI

Session 6 & 7. Course Project 1

Session 8. Making a machine learn and predict outcomes

Session 9 & 10. Course Project 2

Session 11. Making a machine do Image Recognition - A

Session 12. Making a machine do Image Recognition - B

Session 13. Final Course Project

Artificial Intelligence & Machine Learning - (Masters)

Module 1: Fundamentals of Python Programming

Outcome:

- Students will understand Python programming language and its syntax.
- Students will understand basic Python data types and operations.
- Students will understand Python advanced data types like lists and dictionary.
- Students will understand how to write Python programs.

Module 2: Understanding Python Analysis Packages

Outcome:

- Students will understand the numerical analysis methods and functions using Numpy.
- Students will understand graphical representation methods and functions using Matplotlib .

Module 3: Machine Learning using Python Programs

Outcome:

- Students will understand machine learning Python package and its classes and functions .
- Students will understand how to add datasets in Python projects.
- Students will understand the machine learning process flow using Python
- Students will understand different algorithm implementation using Python package.
- Students will understand performance metrics of algorithms.

Module 4: Eduvance AI Tool Programming Mode – Regression and Classification

Outcome:

- Students will understand the simple machine learning process flow using Eduvance AI Tool Programming mode.
- Students will understand the advanced configurability achieved in Programming mode.

Module 5: Eduvance AI Tool Programming Mode – Image Recognition

Outcome:

- Students will understand the simple image recognition process flow using Eduvance AI Tool Programming mode.
- Students will understand the advanced configurability achieved in Programming mode.