AI FOR STUDENTS

Explore ΔI

	Theme	Learning Objectives
1	**Investigate AI features implemented in current technologies**	Explore AI technologies that widely benefit current and future generations, and how intelligent machines and humans work together for the common good.
2	**Investigate Human Machine interactions with Perception**	Code and develop an AI program to detect different types of human faces and to understand human machine interaction using computer vision tools.
3	**Natural Language processing (NLP): Understanding Application**	Explore further concepts of Natural Language Processing and develop an AI program to control an object using voice commands.
4	**Natural Language Processing: Comprehension & Generation**	Code and develop an interactive virtual pet program which will utilize speech recognition and generation tools.
5	**Investigating the Posenet process & application**	Code and develop an AI program, and train it using Machine Learning Models to recognize human poses.
6	**Investigating the Audio Classification process & application**	Code and develop a program that can classify audio, and learn how perception helps to build intelligent machines or robots that will react like humans.
7	**Machine Learning in Image Classification**	Explore Machine Learning in image classification through a program that utilizes computer vision.
8	**Plotting data charts with Natural Interaction & Machine Learning**	Code and develop an AI program that uses Machine Learning models to predict and plot a data chart.
9	**Human head gesture recognition**	Code and develop a program that will recognise human head gestures through perception and human machine interactions.
10	**Creating a Conversational agent (or) ChatBot**	Code and develop an AI conversational agent program, and also train & teach that program to respond to queries provided by the user.
11	**Training a Conversational Agent or ChatBot**	Explore the application of Machine Learning models and Mind Mapping in teaching, training and testing the conversational agent program.
12	**Impact of AI on society [Part 2]**	Using Case Study Methodology, students will explore various scenarios to understand the positive and negative outcomes of the common uses of AI technology.
13 14	**Capstone Projects**	Design and work on two projects using the PBL {Project Based Learning Framework} that applies AI to solve a problem. Instructors will guide the students using the Design Thinking philosophy.