

Innovera Kids Academy

Course Outline

Artificial Intelligence & Machine Learning for Kids

Format: 8 sessions, approx. 60–90 minutes each

Suggested Age Group: 8–13 years

Course Description: A hands-on introduction to AI and machine learning where students explore how computers see, hear, read, and respond — building playable demos and mini-projects each week, from face and object detection to chatbots and ChatGPT.

Session-by-Session Breakdown

Session	Title	Topics & Learning Objectives	Hands-On Project / Activity
1	What Is Artificial Intelligence?	Define AI and machine learning in kid-friendly terms Explore real-world AI: chatbots, self-driving cars, photo/video filters Survey AI application areas: computer vision, NLP, game AI, speech recognition, text-to-speech, OCR	Class discussion & "Spot the AI" — identify AI in everyday apps and devices
2	Face Detection I & II	How facial recognition technology works Face landmarks and expression recognition Understanding confidence levels and face-matching	Build a live face-detection demo; experiment with expression recognition
3	Object Detection I & II	Principles of computer vision and image processing How models recognize objects and people Applications of object detection in daily life	Train/test an object-detection demo to recognize classroom items
4	Human Body Detection I & II	How AI identifies body parts and movement Pose estimation basics	Build a Flappy-Bird-style game controlled by nose position
5	Speech Recognition I & II	How speech-to-text technology works Voice-driven automation concepts	Build a mini Smart Home voice control demo and a simple chatbot
6	Text Recognition I & II	Optical Character Recognition (OCR) fundamentals Intro to Natural Language Processing (NLP)	Build a "Virtual Doctor" tool that classifies symptoms from typed text
7	ChatGPT I & II	How ChatGPT works and how prompts/parameters shape answers Practical, safe uses of AI chat tools	Build a definition-lookup tool, a synonym/antonym converter, and a grammar game
8	Capstone Project & Showcase	Review of AI concepts covered across the course Refine and extend a favorite project from the term	Final project demo day: present an extended AI project (e.g., body-detection game) to the class