# Python & Raspberry Pi

## Level 8 | 48 Hrs. | Age group : 12yrs. +

## Description

This course is an introduction to the Raspberry Pi platform. Students will learn how to set up the Raspberry Pi environment, get a Linux operating system running, and write and execute some basic Python code on the Raspberry Pi. You will also learn how to use Python-based IDE (integrated development environments) for the Raspberry Pi and how to trace and debug Python code on the device.

## Skills you will Develop

- ▼ Creativity & Innovation
- ▼ Problem Solving
- ▼ Team Work
- ▼ Conceptual Skills
- ▼ Presentation & Communication Skills
- ▼ Additional Projects
- ▼ Perseverance
- ▼ Logical Thinking

## Eligibility

- ▼ Good knowledge of Electronics
- ▼ Basic knowledge of Python
- ▼ Basics of Programming

## What will you Learn ?

- ▼ Hardware & Architecture of Raspberry Pi
- ▼ Temperature and humidity monitoring
- ▼ Learn GPIO pins and external peripherals
- ▼ Garbage level monitoring using IR sensor
- ▼ Control the peripherals with Python
- ▼ Introduction to protocols and broker
- ▼ Connection of Raspberry Pi with Sensors & Camera
- ▼ Communication through different brokers.