Python Workshop
Course Content

Techfest is the annual science and technology festival of IIT Bombay.
Following is the basic outline of the **in-person** workshop that would be happening at **Techfest in IIT Bombay**

- Introduction to Robotics & Open Source Platform
  - Applications and Future Scope

- Micro – Controllers and its features
  - Overview of Opensource Hardware.
  - Microcontroller Architecture.
  - Atmega in Arduino
  - Arduino Board Layout and Arduino Platform

- Software Tools
  - Software Installation
  - Getting Started with Arduino IDE
  - How to use the IDE and connect your Board to the Laptop.
  - Write your sample programs

- Interfacing of I/O Devices
  - Interfacing a LED
  - Interfacing a Motor
  - Interfacing Analog and Digital Sensors

- Other Topics
  - ADC
  - Timers and Interrupts

- Hands-On Sessions
  - LED Patterns
  - Line Following Robot
  - Obstacle Avoider Robot
  - Edge Avoider Robot
  - Wall Following Robot