



Advance Robotics-Arduino

Session : 1 Introduction to Robotics

- Terminology involved in robotics
- History of Robotics

Session : 2 Basics of Mechanics

- Types of locomotion
- Different drives
- Different types of motors and their selection
- Steering mechanisms
- CG, torque calculation
- Different types of gears and calculations

Session : 3 Basics of Electronics

- Component identification and usage
- Basics of circuit designing
- Concepts and principals of sensors

Session : 4 Introductions to Arduino

- Architecture of ATmega8
- AVR hardware Detail- I/O Ports
- AVR Clock Oscillator
- Difference between Microcontroller and Microprocessor

Session : 5 Basics of Embedded C

- Introduction to various 8 bit
- Architecture of 8051
- C Coding and compiling
- Variable Types and Constants
- Boot loading
- Interfacing microcontroller with motors, actuators, sensors, LCD, LED on Robot Controller

Session : 6 Robotics Project with MCU

- Obstacle avoiding robot
- Line following robot
- Edge avoiding robot
- Light following robot
- Cell Phone controlled Robot
- Bluetooth controlled robot
- Gesture controlled robot
- Android Smart phone controlled robot

Session : 7 Robotics Project Demo

- Wireless controlled robot
- voice controlled robots
- PC controlled robots

Duration

Duration: 30 Days

Benefits

10% discount on any RoboZZ Lab's product

Group discount of 10% on a batch of 10 students and above.