



OVERVIEW: Hands-On-Training Experience in Robotics

1. Introduction to Robotics
2. Mechanical Aspects
 - Introduction to Mechanical parts of Robot,
 - Core robotics, Drives.
3. Different types of motors
 - DC Motor, Servo Motor, Stepper Motor.
4. Batteries, Power supply systems
5. Sensors
 - Different types of Sensors
 - IR Sensor, Proximity Sensors, LDR
 - Temperature Sensors, Motion Detectors, Acceleration detectors
6. Electronics
 - Resistors, Capacitors, Diodes, Transistor as a switch, Relays
 - Op Amplifier Hands on LM324 OP AMP IC, 555 timer
 - Hands on soldering on PCB
7. Revising Microchip's PIC Microcontroller
 - Architecture, Memory map, Instruction set, Port D
8. Hands on Programming PIC MCU using MPLAB.
 - Interfacing with DC geared motor
 - Interfacing with Servo motor.
 - Controlling Speed and direction of the motor
9. Project Work:
 - Mechanical Construction of Robot.
 - Soldering of components on PCB.
 - Interfacing MCU with IR and DC geared motor using MPLAB.
 - Pick and drop Robot.

Note:-

1. Course fee is Rs 8, 000 + 10.3% tax = Rs 8,824 (including registration, training, Reference CD and cost of Robo)
2. Timing: - 10:30-5.30PM.
3. Students will receive certificates from EFY Enterprises on successful completion of class.
4. At the end of the course a CD will be provided with the information about Reference manual, Data manual and necessary details.