

Embedded Systems

Embedded Robotics is an exhaustive hand on training program on Robotics designed to meet the industry needs and provide students with placements. This course would provide the participants knowledge and experience on the fast growing field of Robotics. Embedded Systems and Robotics is the next big thing, so get ready for the same.

Topics to be covered:

SESSION:1 Introduction to Embedded System

Introduction to Embedded System
Embedded System and its application
Definition, of the Embedded System
Future of Embedded System

SESSION 2: Basic Electronics

SESSION 3: Advanced C programming

Features of C programming Language
Program Structure & DATA types constants
Variable Operators assignment
Looping
Functions
Printer & Array
Sorting techniques

SESSION 4: Atmel AVR Microcontrolle

Microprocessor Vs Micro Controller
CISC Vs RISC
Input & Output functions



PIN & PORT function

Data Register

Pin Description of microcontroller

Interfacing of the sensors with microcontroller

SESSION 5: Introduction to Embedded C Programming

Embedded C-Programming for Microcontroller

Introduction to C, flow Control Statement, functions

Program structure and debugging

Program burning and execution

SESSION 6: Introduction to LCD

Introduction to 16X2 LCD

Interfacing with microcontroller

Embedded C Programming for LCD

Testing of the Program

SESSION 7: Introduction to Advance Features of AVR microcontroller

ADC, Analog to digital Converter

ADC Data register

Interfacing temperature sensor with microcontroller

Embedded C Programming

EMBEDDED SYSTEMS TOOLKIT

Hardware Components:

Processor - Arduino mini/ Atmega 8/16/ Atmega 328

Bread Board

P-N Diodes

Resistors

Capacitors

LED(red/blue)



Supply

IC 78XX (7805)

Software/Design Components:

PROTEUS 8.2/7.9/9.1

SPICE

Eligibility: It's a basic level workshop so there are no prerequisites. Anyone interested, can join this workshop.

Fee: Rs. 1500/-(inclusive of all Taxes) per participant. Kit to be given in a group of 5.

