EMBEDDED SYSTEM Training

Duration 120 hrs

For BE/Btech/Mtech/Msc in Electronics Communication, Instrumentation, Electrical

Fees 30,000 rs (FIXED) No negotiate

➢ REVISITING ELECTONICES COMPONENTS & CIRCUITES

  ➢ Basic Electronics
    - Basic Concepts
    - Component Identification
    - Circuit design Guidelines
    - Measuring Instruments
    - Communication Basics

  ➢ Digital Electronics
    - Number systems
    - Boolean logic & Logic gates
    - Combinational circuits
    - Sequential circuits

  ➢ Microprocessors Vs. Microcontrollers
    - Architecture
    - Memory
    - Programming Model
    - Peripheral Interfaces
    - Applications

➢ COMPLET **C** & Embedded **C** PROGRAMING

  o Basics Concepts
  o Variables and Data types
  o Storage Classes & Storage Class Modifiers
  o Arrays
  o Functions
  o Structures & Unions
  o Pointers
  o Preprocessor directives

- o Data structures & Linked Lists

➢ CONTROLERS & COMMUNICATION PROTOCOLLS

8 bit Microcontrollers

- ➢ Architecture
- ➢ Programming Model
- ➢ Programming Concepts
- ➢ Peripheral Interface
  - Input/ Output
  - Timer/ Counter
  - Serial Communication Interface
  - Interrupt
- ➢ Hands-on experience using 8-bit microcontroller & peripheral hardware

32 bit microcontrollers

- ➢ Introduction
- ➢ Memory Addressing and Mapping
- ➢ Programming Model
- ➢ Peripheral Interface
  - GPIO
  - Timer0/ Timer1
  - UART0/UART1
  - I2C interface
  - SPI interface
  - PWM interface
  - Real-time Clock & Watchdog timer
  - A/D Converter
  - CAN
- ➢ Hands-on experience using 32-bit microcontroller & Peripheral hardware

- ➢ RTOS CONCEPTS

Real-time systems

  - ➢ Real time systems concepts
  - ➢ Hardware considerations
  - ➢ Real time kernel implementations
    - Real time kernels
    - Inter task communication
    - Synchronization
    - Memory management

- ➢ LINUX INTERNALS

  Linux Architecture and Internals

  - > Introduction to the Linux kernel

  - > Kernel source code structure

  - > Kernel compiling

  - > Kernel configuration, cross- compiling

  - > Linux Internals Introduction

  - > Basic usage of Linux System and shell

  - > Introduction to Linux File System

  - > Setting up Linux Environment

  - > Linux GDB debugger

  - > Operating systems & RTOS concepts

  - > Linux internals, kernel and programming

  - > Accessing Files and Permissions

  - > Processes and Threads

> Interposes Communication

> Serialization

> Partial functions

> Code Introspection

> Closures

> Decorators

➢ EMBEDDED TESTING
  Basic Concepts
  Test Cases

➢ HANDS ON LAB
  Interfacing with * & 32 Bit MCU
  Various sensors
  Wireless Technologies
  Motors
  ADC
  Power supply Board etc….

➢ CASE STUDIES
  1 r 2 case study automotive technology
➢ PROJECT 'S
  After each MuC Training one min project will be executed
  After The entire training, one major project on Automotive R Related project will
  be executed

➢ PLACEMENT ASSISTENCES
  Will support on line up for interviews (not Guarantee)
➢ MOCK INTERVIEWS
  Will proved Candidates the Interviews (Minimum 2 interviews)
➢ COMMUNICATION SKILLS
  Verbal communication
  Personality Grooming