

ADVANCE DIPLOMA IN EMBEDDED SYSTEM DESIGN

Course Details

The Hardware foundation stone:

Basic Electronics
Analogue Electronics
Digital Electronics
All above with hands-on practical

The Software foundation stone:

C Programming

Introduction to Structural Programming & C
Features of C
Data Types, Variables, Constants
Operators, Expressions
Control Structures
Functions
Arrays, Strings
Structures & Unions
Pointers

Embedded C

Introduction to Embedded C
Difference between Embedded C and C.
Keyword
Embedded C Library

The Embedded foundation stone:

CISC based 8051 Programming

8051 Architecture (8 Bit).
Features and architecture.
Pin-out.
Memory organization.
Interrupts & Special function registers.
Embedded Programming in Keil Software:
Introduction to Keil IDE.
Features of Keil Software and
Embedded Software development
Advanced Programming with Keil Software
Embedded Programming Issues.

RISC based PIC Programming

16F877a Architecture (8 Bit).
Features and architecture.
Pin-out.
Memory organization.
Interrupts & Special function registers

CCS PIC C Compiler:

CCS Overview
PCW IDE
PCW Compiler
Built In Functions
Advanced Programming with CCS PIC C compiler
Software

Hardware Interfacing:

Driving LEDs
Driving Relays
Driving Seven Segment Displays
Common Anode and Common Cathode
Interfacing of LCD in 4-bit mode.
Interfacing of Stepper Motor
Interfacing of DC Motor
Interfacing of ADC
Interfacing of DAC

Serial Protocols:

RS 232
RS 485
I2C
SPI
CAN
Ethernet
USB

OS Foundations:

Memory Management
Process Management
Storage Management

PCB Designing

Protel PCB designing software

Real Time Operating System

Review and basic concepts of RTOS
Overview of the available RTOS
Salvo RTOS, VxWorks, PSOS, μ COS, WinCE etc

Linux:

Introduction to Linux OS
File Management Systems
Process Management Systems
Memory Management Systems
Inter Process Communications
VI editor commands

Development Tools:

Development Boards

Simulators
Emulators
IC Debugger
Build Tool Chains
Debug Monitors and JTAG Debuggers

Advanced Embedded Foundation:

ARM 32 Bit Controller Architecture.

General Description and Architectural Overview
Pin-out
Memory Organization
I/O Ports,
Special function Registers
Special Features of the CPU
Addressing Modes
Instruction Format
ARM Program/ Software development tools

*After being a Technology Honcho, you have to be a technologist of Industry Standards, hence in the same module, we also offers you a **Personality, Attitude and Skills Development Program***

Introduction of Life Skills
Attitude Development
Communication Skills
Personality grooming to cope job Interviews
Time Management
Resume Preparation
Interview Tips

With all this to offer, this is an opportunity of lifetime for you, so what are you waiting for, come and be the part of 120 Billion Dollars Embedded Industry

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