

8051 Microcontroller Training Program

The course is designed for those who want to pursue Embedded Systems. Embedded Technology Training enables a student, a technologist or a hobbyist to develop microcontroller based systems. The need of time is that every engineer should equip with Embedded Technologies. This course of Embedded System is composed around 8051 Microcontroller. This Course cover complete details about Intel 8051 microcontroller technology include techniques for burning Flash ROM of Microcontroller, Circuit designing etc. So, utilize your talent with technology of present and technology of the future.



8051 microcontroller at glance

The Intel 8051 is Harvard architecture, single chip microcontroller (μ C) which was developed by Intel in 1980 for use in embedded systems. Intel's original versions were popular in the 1980s and early 1990s, but has today largely been superseded by a vast range of faster and/or functionally enhanced 8051-compatible devices manufactured by more than 20 independent manufacturers including Atmel, Infineon Technologies (formerly Siemens AG), Maxim Integrated Products (via its Dallas Semiconductor subsidiary), NXP (formerly Philips Semiconductor), Nuvoton (formerly Winbond), ST Microelectronics, Silicon Laboratories (formerly Cygnal), Texas Instruments and Cypress Semiconductor. Intel's official designation for the 8051 family of μ Cs is MCS 51.

8051 Microcontroller application

Scroll Message Display

Data loggers

Digital Weighing Machine

Remote control Applications

Security System

Robotics

Industrial Applications

Measuring Instruments

And Many more



Measuring
Instruments

Consumer
Electronics

Robots

Scroll Message
Display

Traffic signal
Controller

Security
System

Features of 8051 training program

Training program is designed to consider complexity involved in designing of embedded system. In embedded system programmer has to deal with both hardware and software. Code debugging is complex and code execution is also not transparent to user, so keeping all these in minds, we specially focus on following points:

- ▲ Practical oriented training.
 - ▲ Study material is given along with training program.
 - ▲ Real world examples are discussed during training.
 - ▲ Various debugging techniques are demonstrated during training program.
- For more please visit <http://embeddedjunkyard.webs.com>

Course description

Module 1: Introduction

- Introduction of Embedded System
- Evolution in Microcontroller technology
- Past, Present & Future of Embedded System

Module 2: Microcontroller 8051

- Microcontroller 8051 Architecture
- Instruction Set Architecture
- Bus Architecture
- Interrupts and Timers
- Microcontroller 8051 Assembly Language

Module 3: Assembly Language

- Assembly Language of 8051 Microcontroller
- Use of Assemblers & Simulator
- Programming for 8051
- Examples programs for 8051

Module 4: IO Device Interface and practical

- Study of Input Output Devices
 - o LED Display
 - o DIP Switch
 - o Intelligent LCD Display
 - o MatrixKeyboard
 - o Stepper Motors and Types of Stepper Motors
 - o Serial Communication Concepts
 - o Practices on interfacing circuits
 - o Practices of Serial Programmer

Module 5: Advance assemble and C Language

- Preprocessor directives
- Inline assembly in C
- Calling of Assembly function in C
- Convert all Assembly Program in C

Module 6: Project

- Projects in Embedded System *

Module 7: Conclusion

- **Latest trends in embedded fields**
- **Introduction to ...**
 - o In Circuit Emulators
 - o JTAG debug interface
 - o RTOS
 - o Role of Linux in Embedded System



Contact :

Website : embeddedjunkyard.webs.com

Email: embeddedjunkyard@gmail.com