

Durations: (45 Days)

➔ **Basics of Embedded System**

- Introduction to Embedded System
- Applications of Embedded System
- Components of Embedded System
- Discussion on Microcontroller vs Microprocessor
- CISC vs RISC
- Von Neumann vs Harvard Architectures
- Memory mapped I/O vs I/O mapped I/O

➔ **Embedded 'C' Programming**

- Introduction to C programming
- Features of C programming
- Concepts of Algorithms, Resources
- Programming Structure
- Data types, Variables, Operators assignment & Selection
- Looping Functions, Array
- Pointers
- Code Writing
- Working with KEIL Compiler

➔ **Introduction to 8051**

- 8031/8051/8052 Pin description and Architecture
- Internal Memory discussion, SFR
- Interfacing with microcontroller, Practical
- Logic controller interface, LED, LCD, 7-Segment, Matrix Display, Keypad etc.
- Switches, buttons, dc, servo and stepper motors, ADC, RTC etc.

➡ Real Time Applications

- Temperature Monitoring Systems
- Fire Alarms
- DTMF Based Robots, Home Applications control System
- Working with IR, TSOP sensors
- ULN2003, ULN2803, L293D, 8870, DS1307

➡ ARDUINO

- Introduction to ARDUINO family of development boards
- Basics of the board and its architecture
- Introduction to the software and ICSP
- Programming Arduino in its unique style
- Interfacing LED, BUTTONS, LCD
- PWM And its concepts
- SPI protocol and Serial Communication

➡ LIVE PROJECT



Corporate Jalandhar

SCO. 1-12, 4th FLR. Jalandhar City
Center, mithapur road, Jalandhar,
Punjab-144001
Ph. 0181-4318000-88
(M)- 09855967573

AMRITSAR

29-D Block Market,
Teesri Duniya Building,
Ranjit Avenue
Ph. 0183-6533313-73