

## EMBEDDED COURSE

### **HARDWARE:**

- **AT89S51 (8051)**

- Architecture
- Configuration
- Peripheral Interfacing
  - Internal
    - ✓ Timers / Counters
    - ✓ Serial Communication
    - ✓ Interrupts
    - ✓ Memory (RAM / ROM)
  - External
    - ✓ Keyboard
    - ✓ LCD Display
    - ✓ Motor Relay Circuit

- **PIC**

- Architecture
- Configuration
- Peripheral Interfacing
  - Internal
    - ✓ ADC
    - ✓ Timers / Counters
    - ✓ Serial Communication
    - ✓ Interrupts
    - ✓ Memory (RAM / ROM)
  - External
    - ✓ Keyboard
    - ✓ LCD Display
    - ✓ Motor Relay Circuit

- **Arduino**
  - Architecture
  - Configuration
  - Peripheral Interfacing
    - Internal
      - ✓ ADC
      - ✓ Timers / Counters
      - ✓ Serial Communication
      - ✓ Interrupts
      - ✓ Memory (RAM / ROM)
    - External
      - ✓ Keyboard
      - ✓ LCD Display
  - Motor Relay Circuit

## **SOFTWARE**

- C
  - Syntax
  - Conditions
  - Loops
  - Array
  - Pointers
  - Functions
- Embedded C
  - Difference between C and Embedded C
  - Interfacing program for AT89S51 (8051)
  - Interfacing Program for PIC16F877A