



**Simtel Embedded** is a complete learning solution for Embedded System. It gives knowledge right from basic to latest trends. Main emphasis is on ATMELEL 8051 series and PIC Controllers. It has very useful step by step animation for understanding of program. Detail theoretical content along with different way of teaching practical concepts.

### Topics Covered:

- **Basics:** Definition, Characteristics, Architecture, Applications, Categories: Stand Alone Embedded System, Real-Time Embedded System, Network Information Appliances, Mobile Devices; Digital Primer and Components: Numbering and Coding System, Digital Gates, Basic Components-Transistor, Diode, Resistance, Capacitance, Seven Segment Display, Power Supply
- **8051 Microcontroller:** Microcontroller, Architecture, Features, 8051 Pinout and Details, Registers and SFR, Memory Map, Instruction Set, Addressing Mode, Timer and Counters, Interrupts, Serial Communication
- **8051 Peripheral Interfacing:** Switch Interface, Seven Segment Display Interface, LED interface, LCD Interface, Switch and LED Interface, Relay Interfacing, Temperature Sensor Interfacing, DC Motor Interfacing, Stepper Motor Interfacing, Servo Motor Interfacing
- **AVR Microcontroller:** AVR, AVR Family, AVR Microcontroller and its pin description, Examples, RISC, AVR Memory Map, AVR Instruction Set, Comparison between Microcontroller
- **PIC Microcontroller:** PIC and Family, PIC 16F877A Fundamentals and Pin-out details, Memory Map, Timer, Instruction Set, ADC, CCP, MSSP

### Software program windows:

