EMBEDDED SYSTEMS SYLLABUS

C PROGRAMMING & DATA STRUCTURES

- C Fundamentals, Operators and Expressions Data Input and Output
- Control Statements, Functions and Program Structures
- Arrays
- Pointers
- Preprocessor Directives & Bit wise Operators
- Structures & Unions
- Sorting

C++ PROGRAMMING & CONCEPTS

- Introduction to Object Oriented Concepts
- Introduction to C++ Programming
- Classes, Objects and Functions
- Constructor and Destructor
- Pointers &References
- Polymorphism & Inheritance
- Exception Handling &File I/O
- C Language Extensions for 8051 / PIC16F877A / ARM / ARDUINO / MSP430

8051 / PIC16F877A / ARDUINO / -- ARCHITECTURE & PROGRAMMING

- 8051 / PIC16F877A / ARDUINO Architecture
- Introduction of IDE
- Introduction of LED's
- Programming of LED's Interfacing
- Controlling of LED's by using Switches
- Introduction to 7 Segment Display
- Types of 7 Segment Display

- Programming of 7 Segment Display Interfacing
- Introduction to 16 x 2 LCD
- Commands of 16 x 2 LCD
- Programming of 16 x 2 LCD
- Introduction to Switches & Keyboard Matrix
- Interfacing Circuit of Switches & Keyboard Matrix
- Programming of Keyboard Matrix & Switches
- Key board Matrix & LCD Interfacing Program
- Introduction to Motors
- Programming & Controlling of motors
- Introduction to Timers & Counters
- Programming of Timers & Counters
- Introduction to ADC
- Programming of ADC
- Introduction to sensing devices
- Interfacing of IR Sensors
- Interfacing of Temperature Sensor
- Interrupt Generation Techniques, Interrupt Programming
- Serial communication
- Interfacing of GSM

EMBEDDED NETWORKING

- Peer to Peer
- Ad-hoc
- UART