



## **OVERVIEW: Hands-On Training on RTOS using PIC18F Microcontroller**

### **RTOS**

- Introduction to Operating Systems.
- OS Concepts( Scheduling, Semaphores, Mutexes)
- Linux Programming (Process, Signals, Threads, Semaphores etc )
- RTOS (FreeRTOS)
- Demonstration of hands-on practice on PIC development board using a software tool MPLAB IDE

### **Applications of FreeRTOS on PIC18F Microcontroller**

1. **Task Creation** – Creating a task to turn on the LED.
2. **Task Delay** – Task Delay to implement Running LED's and 7 segment display.
3. **Interrupts** – To Toggle an LED using switch.
4. **Semaphores** – Synchronization of a task using keypad.
5. **Queues** – Sending Messages to the LCD.
6. **Co-routines** – Turning on an LED using Co-routines.

### **Note:**

1. Course fee is Rs 8,000 + 10.3% service tax = Rs 8,824 (including registration, training and reference CD).
2. Timings for week days are 10:30 AM to 5:30 PM.
3. Timings for weekend classes are: Saturday 1.30 PM - 5:30 PM; Sunday 10 PM - 5 PM
4. Students will receive certificates from EFY on successful completion of the course.
5. A CD, which contains the course content, reference manual, library of programs, OS Lectures, MPLAB IDE Software will be provided at the end of the course.
6. Development boards can be provided at an extra cost.