"Rapid Prototyping of IOT and Applications Using TI's Kits"

- ❖ Introduction to ARM Boards and features of ARM

- ❖ Introduction to Tiva C Series Launchpad

- ❖ Interrupt Programming with GPIO

- ❖ Hibernation and Wakeup on an RTC Interrupts

- ❖ Interfacing Potentiometer with TIVA GPIO

- ❖ PWM Generation

- ❖ PWM based Speed Control of DC Motor using Potentiometer

- ❖ UART - ECHO!

- ❖ Setting Up CC3100 as a HTTP Server

- ❖ Exploring Sensors

  - ➢ Digital read serial

  - ➢ Blink without delay

  - ➢ Push Button (Input)

  - ➢ Potentiometer (Variable Resistor)

  - ➢ Photo-resistor (Light Sensor)

  - ➢ Temperature (Thermistor and Temp Sensor)

  - ➢ 7 Segment Display (Digital Display)

  - ➢ Playing Music - (Buzzer)

  - ➢ Control the Electric - (Relays)

  - ➢ Display- (4-Digital Display)

- Potentiometer - (Rotary Angle Sensor)

- Sensing the Light - (Light Sensor)

- Hearing - (Sound Sensor)

- Is anybody there- (PIR Sensor)

- Taking care of your plants- (Moisture Sensor)

- Sensing the Distance - (Ultrasonic Ranger Sensor)

- Feeling the Environments - (Temperature Humidity Sensor)

- ❖ TI Internet of Things Overview

- ❖ Application Areas for the Internet of Things

- ❖ Featured IoT Products from TI

- ❖ Cloud Solutions supporting TI solutions

- ❖ Challenges in the Internet of Things

- ❖ Hands-On using WIFI boards (MSP430F5529 and CC3100) through Energia.

- ❖ Discussing Pubnub and Freeboard Creating account on PubNub and Freeboard .

- ❖ Creating a simple HTML web server using MSP430 Launch Pad & CC3100 WiFi Booster Pack

- ❖ Getting Started with Temboo in Energia using Wi-Fi

- ❖ Building a cloud-connected moisture sensor

- ❖ Controlling On board LED through BLYNK application using CC3200 launchpad using Energia.