Internet Of Things (IOT) Course Content (45 Days)

1. Introduction to the Internet of Things

- 1.1 The Internet of Things.
- 1.2 The Basics of Sensors & Actuators.

2.The Arduino Platform

- 2.1 The Arduino Open-Microcontroller Platform.
- 2.2 Arduino Basics.
- 2.3 Arduino Board Layout & Architecture.
- 2.4 Introduction to various Functions.
- 2.5 Reading from Sensors.
- 2.6 Programming fundamentals (C language).
- 2.7 Arduino Programming & Interface of Sensors.
- 2.8 Interfacing sensors with Arduino.
- 2.9 Programming Arduino.

3. Embedded C for AVR.

4. Reading from Sensors.

5. Talking to your Android Phone with Arduino.

6. Connecting Arduino with Mobile Device.

7. Integrating ESP Module & Testing DHCP Connection.

8. Creating Program for Localhost Web Server for controlling devices.

9. Raspberry pi based server for controlling devices.

10. Use Arduino to Upload free data from Environmental Sensors to Server.

11. Using Raspberry pi to communicate with the IoT device and control equipment online.

12.Making Wifi controlled Automation SYSTEM.

13.Making multiple device interface over the WIFI network

Live Project

- Simple LED Program for Arduino.
- Integrating Sensors & Reading Environmental Physical Values.
- Reading Environmental Values on Android Smartphone.
- Assembling and programming IOT based Bot