

Course Content

Day 1. Session 1

- Introduction to IoT
- Basic function, Architecture, Importance
- Application in real world
- Introduction to sensors
- Types of sensors, how to use inputs from sensors
- Wireless and wireline sensors
- Understanding Arduino
- Setting up environment for Arduino
- Writing codes for Arduino board
- Explanation Arduino board and pin configuration

Day 1 session 2

- Capstone project
- Mounting sensors
- Introduction to esp8266
- Caliberating esp8266 with Arduino board
- Creating complete project to take input from the sensor and send the data over internet

Day 2 Session 1

- Introduction to python
- Setting up environment
- writing codes in python
- Raspbein OS
- Installing raspbein
- Setting up raspbien for IoT

Day 2 Session 2

- Introduction to Raspberry pi
- Interacting with Raspberry pi over internet

- Writing first code to send data over cloud from board
- Interfacing sensor data and sending it over internet
- Sensor to Arduino to Raspbein interaction
- Facebook data analytics using Internet of things and different board
- Different protocols for Internet of things
- How it works
- Sample project

Hands on Demonstration with Hardware Kit **(Kits are only for practice and is not for take away)**

One Internet Of Things kit will contain the following listed product with their mentioned respective quantities.

- Raspberry pi (1)
- Arduino UNO (1)
- LM-35 (1)
- LED (2)
- LM1117 (1)
- ESP8266 (1)
- Single PIN Wire (6)
- Bread Board (1)
- IR Sensor (1)
- Memory Card (1)
- HDMI to VGA Connector(1)
- Power Cable USB (1)