

Internet of Things Course Content

Overview : The internet of things (IoT) is the internetworking of physical devices, vehicles, buildings and other items—embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data.

Day 1

Session 1:

Introduction to IOT

- What is IOT?
- Basics of IOT
- Applications of IOT

Introduction to Arduino

- What is ARDUINO?
- What is Open Source Microcontroller Platform?
- Basics of Electronics
- Sensors and Actuators

Hands on Arduino

- Fundamentals of C programming
- Hello to the Microcontroller World (Your First Arduino Sketch)
- Interfacing Sensors With Arduino
- Reading From Sensors

Session 2:

Basics of Networking

- Networking Fundamentals
- Types of Networks
- Network Topologies
- Network Topologies

Arduino with Bluetooth

- Interfacing Bluetooth Module With Arduino
- Controlling Arduino With Android Device

Making Android App Using Online Tools

- Intro to MIT App inventor
- Making your first Android App
- Control Arduino With Your First App

Day 2

Session 3 :

Arduino with Esp8266

- Interfacing With Ethernet
- Interfacing With Ethernet
- Creating program for Local host Web Server

Hello to the Online World

- What are cloud Servers
- Cloud computing and IOT
- Project 1 : Android Controlled Devices Using Arduino
- Project 2 : Internet Controlled LED'S
- Project 3: Home Automation

Session 4 :

- Competition
- Prize Distribution