

Internet of Things – Foundation Certification



The Course

Internet of Things (IoT) is a network infrastructure that connects physical objects and software applications wirelessly, allowing them to communicate with each other and exchange data via network communications, cloud computing, and data capture.

In this instructor-led, live training, participants will learn the fundamentals of IoT as they step through the creation of an Arduino-based IoT sensor system.

The Eligibility

Passionate Technology Enthusiasts with a minimal knowledge on IT and Operating Systems.

Good to have basic knowledge on Electronics, Windows, OS & IT Infrastructure.

The Rulepaper Promise

By the end of this training, participants will be able to:

- Understand the principles of IoT, including IoT components and communication techniques
- Learn how to use Arduino communication modules that can be used for different IoT systems
- Learn how to use and program a mobile app to control Arduino
- Use a WiFi module to connect the Arduino to another device
- Build and deploy their own IoT Sensor System

The Instructor

Enterprise Architect with huge experience on IOT as well as Private and Public Cloud Technologies. The trainers are advisors and members of larger IOT Forums and seasoned integrators of IT with IoT technologies with more than 12+ years in global large enterprise giants.



Course Contents

Module 1

Introduction to IoT

Understanding IoT Fundamentals
Examples of IoT Devices and Platforms
Overview of IoT Components
Analog Sensors
Digital Sensors
Overview of IoT Communication Techniques

Module 2

Understanding Arduino

Arduino Communication Modules

Bluetooth Modules
WiFi Modules
RFID Modules
I2C and SPI
Using a Mobile App for Arduino IoT

Module 3

IOT & Mobile App

Overview of Blynk Mobile App for IoT
Installing Blynk
Interfacing Arduino and Blynk via USB

LED Blinking
Controlling a Servomotor
ESP8266 WiFi Serial Module

Module 4

Understanding the Sensors

Different types of Sensors
Basic Sensor Kit explanation
Pressure Sensor
Temperature Sensor
Motion Sensor
Light Sensor
Understanding Resistors and Diodes

Module 5

Setting up Hardware

Setting Up the Hardware
Interfacing with Arduino
Programming with Arduino
Creating an IoT Temperature and Humidity Sensor System
Overview of DHT-22 Sensor
Interfacing the Hardware: Arduino, ESP8266 WiFi Module, and DHT-22 Sensor
Checking Your Data via ThingSpeak
Connecting Your Arduino Set-up to Blynk via WiFi
Running your Arduino IoT Sensor System



Course Contents

Module 6

Troubleshooting

Understanding the errors
How to troubleshoot
Erratas

KIT worth Rs. 2000 would be shipped on enrollment of the course.

Module 7

Understanding Smarthomes and Smarthings

Smart Devices
How to build a Smart thing
Roadmaps and Next Level IoT



The Duration

Duration of the Course is 20 hours.

The Lab Requirements

Students must bring their own laptops with basic configuration
IOT KIT will be supplied on enrollment of the course

The cost of the Training

Please send an email or contact us at enquiry@rulepaper.com to know more about the cost and next batch schedules.

The certifications

Once the training is completed the student will be awarded with a training certificate from Rulepaper Academy.

