



## Topics to be covered in Workshop

### 1. Understanding and Introduction to RPi

- What is SOC?
- Versions of Raspberry Pi & Their Difference
- Raspberry Pi 3
- Basics of Electronics
- Hardware Description
- Pin Configuration

### 2. OS Installation on SD Card

- Downloading Image
- Study Various Operating Systems Available
- Making SD Card: Formatting and Partitions
- Raspberry Pi SD Installer

### 3. OS Configuration

- Booting Into Desktop
- GUI Version
- CLI Desktop
- Changing Timezone
- Other Options
- Raspi-Config
- Test

### 4. Network Setup

- Setting Up Using GUI
- Setting Up Using Command Line
- Finding Pi's IP Address
- Connecting with Wi-Fi/ LAN/ Datacard

### 5. GPIO

- Study GPIO Pins
- Libraries Using Git
- Configuring GPIO Pins

## 6. Pi using SSH

- Enabling SSH
- Logging in using Putty
- Run Basic Commands
- Use GPIO

## 7. Linux

- Understanding Linux
- File Structure
- Linux Commands
- Permissions

## 8. Using Python

- Understanding Python
- Condition Statement
- Loops
- Importing Libraries
- Functions

### **Practical's Covered**

- Basic Python Functionalities
- Using GPIO Pins for Output
- Interfacing a Sensor
- Controlling LED with a Switch
- Home Automation System using Pi

**Duration:** The duration of this workshop will be two consecutive days, with eight hour session each day in a total of sixteen hours properly divided into theory and hands on sessions.

**Eligibility::** There are no prerequisite for the workshop so that anyone interested can participate in the workshop

**Please Note:** *Please Note: Raspberry Pi Kit Will be provided during the workshop in a group of 4-5 participants per team to cover the practical's during the workshop. The Kit will not be takeaway, after the workshop participants will have to return the kit.*



**Got Quotations? Contact us**

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