

IoT WORKSHOP CONTENT

1. Introduction

2. Raspberry Pi different models with configurations and features

3. Familiarizing with Raspberry Pi Components and interface with GPIO

4. Connecting to Internet via Wifi

5. Raspbian / Noobs Operating systems downloading

6. Raspbian Operating system installation and Configuration

7. Operating system desktop awareness

- Editors
- Python IDE
- LAN / Wifi IP Address Configuration
- VNC Server setup
- Desktop resolution setup
- Interface configuration setting

8. Displaying different LED patterns with Raspberry Pi.

- Components required for the practical
- Components technical background
- Connection with Raspberry pi
- Programs
 - Program to Blink LED single time
 - Program to Blink LED multiple times.
 - Program to Blink LED multiple times, accept the input from the user.
- Write Program in Python – Compile and execution of Program
- Testing Output

9. Displaying Time over 4-Digit 7-Segment Display using Raspberry Pi

- Components required for the practical
- Components technical background
- Connection with Raspberry pi
- Programs
 - Program to display brightness in increasing order
 - Program to display Raspberry Pi Time on 7 segment Led
 - Program to display Raspberry Pi IP Address on 7 segment Led
- Write Program in Python – Compile and execution of Program
- Testing Output