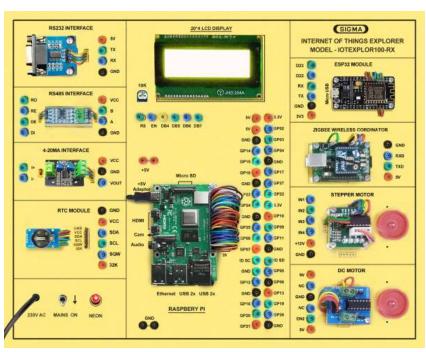


SMART ENVIRONMENT IOT TRAINER - TRANSMITTER AND RECEIVER

MODEL-SMARTENVIRON100



Transmitter



Receiver

A. Main Specs

- 1. Following Parts and Modules are assembled on Single PCB of size 18 Inch x 15 Inch.
- 2. The complete circuit diagram is screen printed on component side of the PCB with circuit and Parts at the same place.
- 3. The PCB with components on front side is fitted in elegant wooden box having lock and key arrangement.
- 4. Modules and Parts should be removable without desodlering for easy repair / replacement
- 5. The acrylic cover is fitted on PCB to safeguard main parts.

B. Transmitter Node Section

- 1. Arduino Uno R3
- 1. CO2: Range: (0-2000ppm) Sensor
- 2. O2: Range: (0-25%) Sensor
- 3. Air Temperature & Humidity Sensor DHT11
- 4. Atmospheric Pressure Sensor BMP180
- 5. PM2.5 and PM10 Air Quality Dust Pollution Sensor (UART and PWM output)
- 6. Solar Radiation Sensor SDS011
- 7. UV Index Sensor
- 8. Alexa Voice Control
- 1. Zigbee IoT Gateway
- 2. Wifi IOT Gateway ESP32
- 3. GSM IoT Gateway
- 4. Bluetooth IOT Gateway
- 5. LoraWAN IOT Gateway LA66
- 1. 20 X 4 LCD Display

C. Receiver Base Station Section

- 1. Raspberry Microcontroller Board Pi-4, 2 GB RAM, 64 GB Storage
- 2. 20 X 4 LCD Display
- 3. 5V, 2 Channel Relay
- 4. Audio Buzzer
- 5. Bluetooth Gateway
- 6. Zigbee IoT Gateway
- 7. Wifi IOT Gateway ESP32
- 8. LoraWAN IOT Gateway LA66

D. EXPERIMENTS

- 1. To explain theory of Raspberry Board, Arduino Board and All sensors and Parts
- 2. To measure all Sensors data
- 3. Smart Dashboard for Remote Monitoring and Analysis
- 4. To send Sensors data from Transmitter Node to Base Receiver using Bluetooth Gateway
- 5. To send Sensors data from Transmitter Node to Base Receiver using Zigbee Gateway
- 6. To send Sensors data from Transmitter Node to Base Receiver using Wifi Gateway
- 7. To send Sensors data from Transmitter Node to Base Receiver using LoRaWAN Gateway
- 8. To send Sensors data to Mobile using GSM Gateway by SMS
- To send Sensors data to Mobile using Mobile App
- 10. To send Sensors data to Website Cloud page
- 11. To send Sensors data to MySQL Cloud Server and store them
- 12. To send Sensors data to Local Host Server and Store them on website html page
- To send Sensors data from Transmitter Node to TTN LoRaWAN Cloud Server using LoRaWAN Gateway

E. Accessories

1. All Cables and Adaptors

2. Pen Drive : 16 GB with All Codes and Soft copy of Manual

3. E-Books for IOT Subject : 100 Nos. in PDF Format

4. Mp4 Video for IOT Subject : 100 Nos

5. Online Cloud/Server Services : For 2 Years on Cloud Server6. Live Training at College : For 2 Days for 4 Hours per Day

7. After Sale Training support : By Online Zoom Meeting or By Whatsapp Video Call