

# 12. LORAWAN E5 GATEWAY TRAINER

# **MODEL-LORA-E5-100**

# **SPECIFICATIONS**



This trainer has been designed with a view to provide practical and experimental knowledge of Internet of Things (IOT) with LoRaWAN Gateway Communication Sensors programing with LoRaWAN Gateway.

#### **SPECIFICATIONS**

### 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. Micro Controllers**

LoRa-E5 Dev Board : 1 No
Antenna - EU868 : 1 No

#### C. Sensors

Flame Sensor : 1 No
Photosensitive LDR Sensor : 1 No
Temperature and Humidity Sensor : 1 No
Ultrasonic Distance Sensor : 1 No

#### **G. Features**

- 1. Ultra-low power consumption and high performance
- 2. Easy testing and rapid prototyping
- 3. Full GPIOs led out to rich interfaces, including RS-485, Grove, and etc.
- Global LoRaWAN and LoRa frequency plan supported
- 5. Long-distance transmission range to 10km (ideal value in open area)
- 6. Current: LoRa-E5 module sleep current as low as 2.1uA (WOR mode)

## I. Micro Controllers and other parts

1. **USB Cables** : 2 No 2. Flame Sensor : 1 No 3. Photosensitive LDR Sensor : 1 No 4. Temperature and Humidity Sensor : 1 No 5. Ultrasonic Distance Sensor : 1 No White LED : 5 Nos. 7. Audio Buzzer : 1 No 8. Relay Module : 1 No 9. Jumper Wires Male to Male : 20 Nos 10. Jumper Wires Female to Female : 20 Nos 11. Jumper Wires Female to Male : 20 Nos

#### J. 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 1 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

#### **EXPERIMENTS**

- 1. To explain theory of All Micro Controller Boards, All Wireless Gateways and All Sensors Parts
- 2. To measure all Sensors data using LoRa E5 Board
- 3. To setup and configure LoRaWAN Cloud Server
- 4. To send live Sensors Data between two Arduino Lora Shield using Peer-to-Peer Lora Communication
- 5. To send live Sensors Data between two Lora USB Modules using Peer-to-Peer Lora Communication
- 6. To send live Sensors Data to LoRaWAN Cloud and View on Website Page Dashboard
- 7. To send live Sensors Data to LoRaWAN Cloud and View on Android Mobile App
- 8. To send live Sensors Data to LoRaWAN Cloud and save on MySQL Cloud Server and then store and export it in xls file
- 9. To send Sensors data to Local Host Server, store and export it in xls file
- 10. To send Sensors data to Local Host Server and Display on website html page

### **Contact us**

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