



SMART CITIES IoT TRAINER

MODEL- S-CITI-IoT100

This trainer has been designed with a view to provide theoretical & practical knowledge of Smart Cities IoT .



FEATURES

Following five parameters are controlled with required Sensors.

1. Noise Urban Maps

Description : Sound Monitoring in bar areas and Centric zones in real time.
Sensors : Microphone (dBA).

2. Smart Lighting

Description : Intelligent and Weather adaptive lighting in street lights.
Sensors : Luminosity (luxes accuracy).

3. Waste Management

Description : Detection of Rubbish levels in containers to optimize the trash collection routes.
Sensors : Ultrasound.

4. Air Quality

Description : Control of the Pollution levels.
Sensors : CO₂ , NO₂ , CO , O₃

5. Weather Control

Description : Monitor Amospheric conditions.
Sensors : Humidity, Luminosity (LDR), Temperature.

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Dealer:-

SPECIFICATIONS

1. Plug & Sense! Smart Cities 802.15.4 -PRO : 1 No
2. Plug & Sense! Ambient Control 802.15.4 -PRO : 2 Nos.
3. Plug & Sense! Smart Environment 802.15.4 –PRO : 1 No
4. Microphone (dBA) Sensor Probe : 1 No
5. Ultrasound Sensor Probe : 1 No
6. Luminosity (LDR) Sensor Probe : 3 Nos.
7. Temperature + Humidity Sensor Probe : 2 Nos.
8. Luminosity (luxes accuracy) Sensor Probe : 2 Nos.
9. CO2 Sensor Probe : 1 No
10. CO Sensor Probe : 1 No
11. No2 Sensor Probe : 1 No
12. O3 Sensor Probe : 1 No
13. Atmospheric Pressure Sensor Probe : 1 No
14. Rechargeable Battery : 4 Nos.
15. External Solar panel : 4 Nos.
16. Ethernet Gateway : 1 No
17. Software : 1 No.
18. Interface Cables : 1 Set

19. Trainer Board:-

The complete circuit diagram should be is screen printed on component side of the PCB with circuit and Parts at the same place. The true value of component is printed on component side. The PCB with components on front side is fitted in elegant wooden box having lock and key arrangement. The acrylic cover is fitted on PCB to safeguard parts. It has holes for alignment and repair. The testing points are provided with 1.25" tags to connect CRO probe.

20. Training Package:-

1. E-Books for Smart Citi Subject: 10 Nos. in PDF Format
2. Mp4 Video Class for Smart Citi subject: 40 Classes in Mp4 on Pen Drive
3. Trainer Quality must be comply with international standard.
4. All accessories and cables needed to make the system functional are to be supplied.
5. Manuals Complete with softcopy and 3 copies of each of the following manuals in English are to be supplied:
 - a. Theory Manual
 - b. Experiments Manual.

The manual must have Block Diagram, Charts, and True Waveform taken from CRO, Test Points and Connection Diagram. Online manual also is to be provided on website.

6. All software required to be installed and also original Driver CD, Windows OS CD and all other software CD are to be provided in 2 copies.
7. Installing and commissioning must be done within 1 Week from the date of delivery at no additional cost from college.
8. Training at Site: Minimum 1 day for minimum 5 persons nominated by the institution.
9. Objective: The trainee must be able to operate and run all the equipment and experiment.
10. Warranty:
 - a. At least 1 year inclusive of parts and labor / after sales service from the date of successful completion of installation and commissioning and handling over with response time of not more than 5 working days.
 - b. The warranty claim must be settled within 10 working days, if more time is required, loan unit has to be provided until the faulty unit is repaired.
 - c. Telephone and Email support to be provided for any query within 24 Hrs.

21. Experiments

1. To Study Theory and Block Diagram of Smart Cities IoT
2. To monitor sound levels in bar areas and centric zones in real time using Microphone.
3. To monitor Intelligent and Weather adaptive lighting in street lights using Luminosity Sensor.
4. To detect and monitor Rubbish levels in containers to optimize the trash collection routes using Ultrasound sensor.
5. To Control Air Pollution levels using CO₂, NO₂, CO, O₃ sensors.
6. To monitor Atmospheric Conditions like Humidity, Temperature and Light using sensors.