SMART AGRICULTURE IoT TRAINER

MODEL- S-AGR-IoT100

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

FEATURES

Following four parameters are controlled with required Sensors.

1. **Wine Quality Enhancing**
   - Description : Monitoring soil moisture in vineyards to control the amount of sugar in grapes and grapevine health.
   - Sensors : Soil moisture, soil temperature, humidity, leaf wetness, atmospheric pressure.
2. **Green Houses**
   - Description : Control micro-climate conditions to maximize the production of fruits and vegetables.
   - Sensors : Soil moisture, soil temperature, humidity, leaf wetness, atmospheric pressure.
3. **Golf Courses Irrigation**
   - Description : Selective irrigation in dry zones to reduce the water resources required in the green.
   - Sensors : Soil moisture (3 levels of depth).
4. **Compost**
   - Description : Control of humidity and temperature levels in alfalfa, hay, straw, etc. to prevent fungus and other microbial contaminants.
   - Sensors : Humidity, soil moisture, soil temperature.

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Dealer:-

SPECIFICATIONS

1. Plug & Sense! Smart Agriculture-PRO 802.15.4-PRO : 2 Nos.
2. Plug & Sense! Smart Agriculture 802.15.4 -PRO : 1 No.
3. Temperature + Humidity (Sensirion) Sensor Probe : 3 Nos.
4. Atmospheric pressure Sensor Probe : 1 No.
5. Soil moisture 1,5 m Sensor Probe : 3 Nos.
6. Soil moisture 4,5 m Sensor Probe : 3 Nos.
7. Solar radiation Sensor Probe : 2 Nos.
8. Soil/Water temperature (Pt-1000) Sensor Probe : 2 Nos.
9. Leaf wetness Sensor Probe : 3 Nos.
10. Rechargeable Battery : 4 Nos.
11. External Solar panel : 4 Nos.
10. Anemometer+ Wind Vane + Pluviometer : 1 No.
11. Ethernet Gateway : 1 No
12. Software : 1 No.
13. Interface Cables : 1 Set

14. 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.

15. Training Package:-

1. E-Books for Smart Agriculture Subject: 10 Nos. in PDF Format
2. Mp4 Video Class for Smart Agriculture 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.

16. Experiments:-

1. To Study Theory and Block Diagram of Smart Agriculture IoT
2. To monitor soil moisture in vineyards to control the amount of sugar in grapes and grapevine health using Soil moisture, Soil temperature, Humidity, Leaf wetness, Atmospheric pressure sensors.
3. To Control micro-climate conditions to maximize the production of fruits and vegetables using Soil moisture, Soil temperature, Humidity, Leaf wetness, Atmospheric pressure sensors.
4. To control selective irrigation in dry zones to reduce the water resources required in the green using Soil moisture Sensors.
5. To Control Humidity and Temperature levels in Alfalfa, Hay, Straw, etc. to prevent fungus and other microbial contaminants using Humidity, Soil moisture, Soil temperature sensors.