INTERNET OF THINGS
IoT TRAINER
MODEL-IOT100

This trainer has been designed with a view to provide theoretical & practical knowledge of Internet of Things - IoT.

This IOT trainer is to make different types of IOT projects and learn Hardware, Sensors, programming and controlling data by Mobile - SMS or by Internet

SPECIFICATIONS

1. Hardware

1.	Arduino UNO Controller	:	1 No.
2.	Arduino Ethernet Shield	:	1 No.
3.	Display 20 * 4 LCD	:	1 No.
4.	Infrared Sensor	:	1 No.
5.	Audio Sensor	:	1 No.
6.	Humidity Sensor	:	1 No.
7.	PIR Sensor	:	1 No.
8.	Reed Switch Sensor	:	1 No.
9.	Light Sensor	:	1 No.
10.	Gas Sensor	:	1 No.
11.	Pressure Sensor	:	1 No.
12.	Temperature Sensor	:	1 No.
13.	Onboard Parts	:	

Push Switch, Buzzer, Seven Segment Display, Potentiometer, Speaker, Relay, Servo Motor, DC Motor and Different types of Resistors, LEDs.

2. Software

1.	Controller Software CD	:	1 No.
2.	Applications Codes CD	:	1 No.

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Dealer:-

3. Accessories

1.	Connecting Wires / Jumpers	:	20 Nos.
2.	Practical Manual	:	1 No.
3.	Software Driver CD	:	1 No
4.	Code Program CD	:	1 No
5.	E-Books for IOT Subject	:	10 Nos in PDF Format
6.	Mp4 Video Class for IOT subject	:	40 Classes

4. 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.

5. Note

One Computer system (Pentium IV 1.5GHz, 160GB HD, 1GB RAM) with One USB Port is required to operate this trainer.

EXPERIMENTS

1. To Study Theory and Block Diagram of Internet of Things
2. To Study Arduino Controller
3. To Study Arduino Ethernet Shield
4. To Study Ethernet Gateway
5. To Study different type of IoT things and their Output characteristics
6. To install and Connect different IoT things to Node Controller Boards
7. To install and Configure Node Controller Boards
8. To install and Configure Ethernet Gateway
9. To write a Program in C++ for programming of different types Nodes and Routers
10. To Start HyperTerminal and send and receive Sensors Data readings to Base Station
11. To understand different types of Protocols and Commands
12. To Cross over from Mesh Network to Internet Network
13. To make Internet of Things (IoT)
14. To make Traffic Light Application
15. To make Simple Web Client for IoT
16. To make Simple Web Server for IoT
17. To make 7 Segment LED Clock driven by Internet
18. To Monitor Brightness and Temperature Remotely
19. To turn LED on/off through mobile phone
20. To turn Home Lights on/off through mobile phone
21. To send message on twitter using IoT
22. To make LED on/off using Android app
23. To make SD Card Web Server using IoT
24. To make SD Card File Server using IoT
25. To Log remote data using SD card
26. To send Email alert using IoT
27. To demonstrate and understand different types of faults