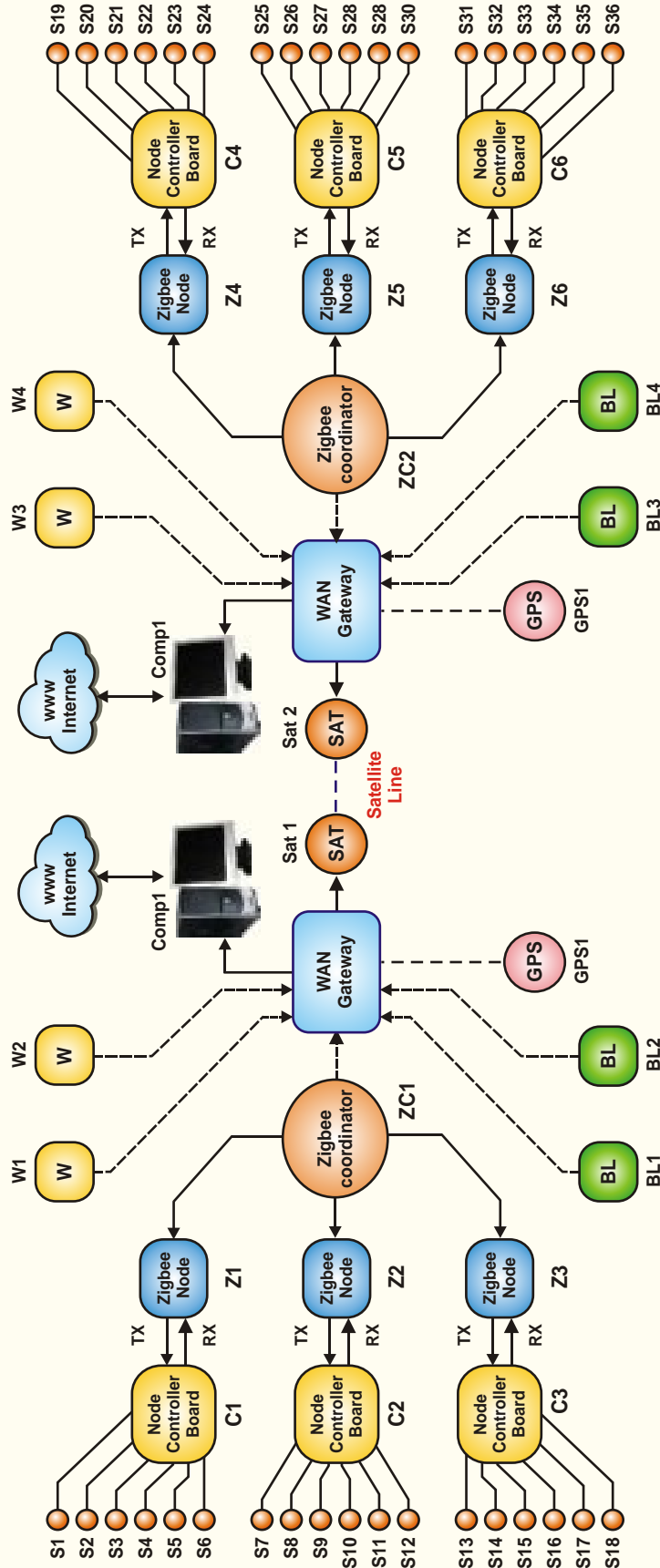




WIRELESS SENSOR NETWORK TRAINER

MODEL-WSN-WAN100S

This trainer has been designed with a view to provide theoretical & practical knowledge of Wireless Sensor Network Trainer.



SPECIFICATIONS

1. Hardware

Node Controller Boards	: 14 Nos.
Zigbee Nodes	: 6 Nos.
Zigbee Coordinator	: 2 Nos
Wifi Nodes	: 4 Nos
Bluetooth Nodes	: 2 Nos
GSM Nodes	: 2 Nos.
GPS Nodes	: 2 Nos
RFID Nodes	: 2 Nos
LoRa Nodes	: 2 Nos
Ethernet Gateway	: 2 Nos.
Mobile Gateway	: 2 Nos
Satellite Gateway	: 2 Nos
Internet Gateway	: 2 Nos
IoT Boards	: 2 Nos.
Access Points	: 2 Nos.
Sensors	: 100 Nos.

MODEL-WSN100L

2. Software

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

3. Accessories

Computer Base Station	: 2 Nos
USB Cables	: 20 Nos
Rs232 Cables	: 10 Nos.
Connecting Wires / Jumpers	: 100 Nos
Pdf Ebooks on WSN Subject	: 20 Nos.
Mp4 Lectures on WSN Subject	: 80 Nos.
Practical Manual	: 1 No.

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Dealer:-

EXPERIMENTS

MODEL-WSN100L

1. To Study Theory and Block Diagram of Wireless Sensor Network
2. To Study Node Controller Boards
3. To Study ZigBee Wireless Transmitter Nodes
4. To Study ZigBee Wireless Router and Co-Ordinator
5. To Study Ethernet Gateway
6. To Study different type of Sensors and their Output characteristics
7. To install and Connect different Sensors to Node Controller Boards
8. To install and Configure Node Controller Boards
9. To install and Configure ZigBee Wireless Transmitter Nodes
10. To install and Configure ZigBee Wireless Router and Co-Ordinator
11. To install and Configure Ethernet Gateway
12. To write a Program in C++ for programming of different types Nodes and Routers
13. To Start Hyperterminal and send and receive Sensors Data readings to Base Station
14. To understand different types of Protocols and Commands
15. To study Sensor controlling and Monitoring Software
16. To control Sensors using the PC Monitoring software
17. To Study and Configure different types fo Topologies
18. To Cross over from Mesh Network to Internet Network
19. To Make Web Server and control different data using Internet
20. To make Internet of Things (IoT)
21. To make different Applications and Projects using Wireless Sensor Network
22. To demonstrate and understand different types of faults

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Dealer:-

SENSORS

A **Temperature**

- 1 LM35 - Analog IC
- 2 Thermocouple
- 3 NTC Thermistor

B **Sound / Audio / Voice**

- 4 Condenser Mike

C **Weather**

- 5 Humidity
- 6 Pressure
- 7 Light - IL luminance

D **Images**

- 8 Colour - 10Bit - RGB
- 9 Image Sensor
- 10 Infrared LED - TX
- 11 Infrared Photo Transistor
- 12 Infrared Photo Diode - RX
- 13 Camera

E **Magnetism**

- 14 Hall Effect Latch
- 15 3-axis Magneto meta

F **Proximity Sensor**

- 16 Infrared Motion
- 17 Infrared Proximity
- 18 Ultrasonic TX RX

G **Current Sensor**

- 19 Current Hall Effect

H **Touch Sensor**

- 20 Capacitive Touch 12 Channels

I **Flex-Force Sensor**

- 21 Flexible PVDF
- 22 Piezo Polymer Film
- 23 Force Sensitive Resistor
- 24 Flex Sensor
- 25 Softpot Membrane Pot

J Biometrics / Gas Detection

- 26 Alcohol
- 27 Carbone Oxide
- 28 Hydrogen
- 29 Methane
- 30 Dust
- 31 Finger Print

K Speed

- 32 Accelerometer 3axis

L RFID

- 33 RFID Card/Reader

M Gyroscope

- 34 3axis Gyroscope

N Power Control

- 35 Power Control

O Radiation

- 36 Radiation - Alpha, Beta, Gamma, Gieger Muller Counter

P Water

- 37 PH
- 38 Water Sensor
- 39 Liquid Level
- 40 Turbidity
- 41 Water Leakage

Q Displacement / Movement

- 42 Linear Displacement
- 43 Crack Sensor
- 44 Scratch Sensor
- 45 Movement Sensor
- 46 Weight / Load

R Mechanical

- 47 Vibration
- 48 Impact
- 49 Hall Effect
- 50 Tilt / Bend
- 51 Energy Sensor

S Medical

- 52 Pulse Sensor
- 53 OCR Sensor
- 54 Brain Sensor

T Others

- 55 Compression
- 56 Eye Blink
- 57 Gesture Recognition
- 58 LDR
- 59 Light to Frequency
- 60 MEMS Sensor
- 61 Mind wave Sensor
- 62 Solar Sensor
- 63 Sonar Sensor
- 64 Speech Recognition
- 65 TFT Sensor
- 66 Voltage Sensor
- 67 PIR - Passive Infrared
- 68 Microwave Sensor
- 69 Encoder Sensor
- 70 Photoelectric Switch
- 71 Water Flow Sensor
- 72 Soil Moisture Detector
- 73 Laser Sensor
- 74 Human Body Motion Sensor
- 75 Smoke Detector Sensor
- 76 Air Quality Sensor
- 77 Infrared Obstacle Sensor
- 78 LDR