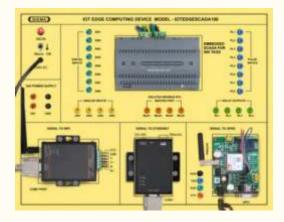


IOT EDGE COMPUTING DEVICE MODEL-IOTEDGESCADA100

This trainer has been designed with a view to provide practical and experimental knowledge of IoT EDGE Computing Device.



SPECIFICATIONS

(1) Hardware

Following Hardware is assembled on Single PCB of size - 18 Inch x 15 Inch

- 1. Embedded SCADA for 500 Tags
- 2. 24 VDC Isolated Power Supply
- 3. 4 MODBUS RTU Master
- 4. 32 GB Built in SD Card
- 5. 1 Wi-Fi Port
- 6. 1 Ethernet Port
- 7. 1 GPRS Port
- 8. 4 Analog Inputs (0.1% FSR)
- 9. 8 Pulse Inputs (up to 1 kHz)
- 10. 8 Digital Inputs
- 11. 4 Relay Outputs

(2) Accessories

1.	Ethernet Cable	: 2 No
2.	Jumper wires	: 30 Nos.
3.	Software and Driver CD	: 1 No.
4.	Practical Manual - Printed + Soft Copy	: 1 No.
5.	E-Books for Subject	: 10 Nos. in PDF Format
6.	Mp4 Video Class for Subject	: 40 Nos

(3) Cabinet and PCB

The complete circuit diagram is screen printed on component side of the PCB with circuit and Parts at the same place. 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 works on 230 V AC Supply.

EXPERIMENTS

A. Theory Experiments

- 1. To study theory of Embedded SCADA for 500 Tags
- 2. To study theory of 24 VDC Isolated Power Supply
- 3. To study theory of MODBUS RTU Master
- 4. To study theory of 32 GB SD Card
- 5. To study theory of Ethernet IOT Data Acquisition using Ethernet Port
- 6. To study theory of Wi-Fi IOT Data Acquisition using Wi-Fi Port
- 7. To study theory of Cellular (GSM / GPRS) IOT Data Acquisition using GPRS Port
- 8. To study theory of 4 Analog Input
- 9. To study theory of 8 Pulse Inputs
- 10. To study theory of 8 Digital Inputs
- 11. To study theory of 4 Relay Outputs
- 12. To study theory of Serial to Ethernet Converter
- 13. To study theory of Serial to Wi-Fi Converter
- 14. To study theory of Serial to GPRS Converter

B. Hardware and Software Experiments

- 15. To use and implement Embedded SCADA for 500 Tags
- 16. To use and connect 24 VDC Isolated Power Supply
- 17. To use and implement MODBUS RTU Master
- 18. To store acquired data into 32 GB SD Card
- 19. To use and implement 4 Analog Input
- 20. To use and implement 8 Pulse Inputs
- 21. To use and implement 8 Digital Inputs
- 22. To use and implement 4 Relay Outputs
- 23. To acquire data using Ethernet IOT Data Acquisition using Ethernet Port
- 24. To acquire data using Wi-Fi IOT Data Acquisition using Wi-Fi Port
- 25. To acquire data using GPRS IOT Data Acquisition using GPRS Port
- 26. To convert acquired serial data into Ethernet data using Serial to Ethernet Converter
- 27. To convert acquired serial data into Wi-Fi data using Serial to Wi-Fi Converter
- 28. To convert acquired serial data into GPRS data using Serial to GPRS Converter