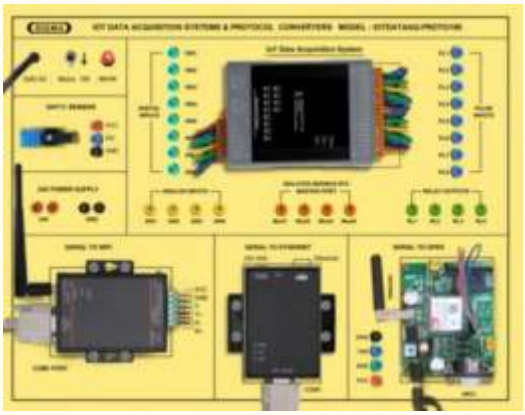
IOT DATA ACQUISITION SYSTEMS & PROTOCOL CONVERTERS MODEL-IOTDATAAQ-PROTO100

This trainer has been designed with a view to provide practical and experimental knowledge of Data Acquisition Systems & Protocol Converters.



SPECIFICATIONS

(1) Hardware

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

1. Connectivity to Cloud (IBM, Microsoft, Amazon)
2. 4 Analog Inputs (0.1% FSR)
3. 8 Pulse Inputs (up to 1 kHz)
4. 8 Digital Inputs
5. 4 Relay Outputs
6. Ethernet IOT DAQ
7. Wi-Fi IoT DAQ
8. Cellular (GSM / GPRS) IoT DAQ
9. MODBUS RTU to MODBUS TCP
10. 24 VDC Isolated Power Supply
11. 4 Isolated MODBUS RTU Master Port
12. Serial to Ethernet Converter
13. Serial to Wi-Fi Converter
14. Serial to GPRS Converter
15. Air Humidity & Temperature Sensor (DHT11)

Sigma Trainers and Kits
E-113, Jai Ambe Nagar,
Near Udgam School,
Thaltej,
AHMEDABAD - 380054.
INDIA.

Phone(O): +91-79-26852427
Phone(F): +91-79-26767512
Mobile : +91-9824001168
Email : sales@sigmatrainers.com
: drluhar@gmail.com
Web : www.sigmatrainers.com

Dealer:-

(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 4 Analog Inputs
2. To study theory of 8 Pulse Inputs
3. To study theory of 8 Digital Inputs
4. To study theory of 4 Relay Outputs
5. To study theory of Ethernet IOT Data Acquisition
6. To study theory of Wi-Fi IOT Data Acquisition
7. To study theory of Cellular (GSM / GPRS) IOT Data Acquisition
8. To study theory of MODBUS RTU to MODBUS TCP Conversion
9. To study theory of 24 VDC Isolated Power Supply
10. To study theory of Isolated MODBUS RTU Master Port
11. To study theory of Serial to Ethernet Converter
12. To study theory of Serial to Wi-Fi Converter
13. To study theory of Serial to GPRS Converter

B. Hardware and Software Experiments

14. To use and implement 4 Analog Inputs
15. To use and implement 8 Pulse Inputs
16. To use and implement 8 Digital Inputs
17. To use and implement 4 Relay Outputs
18. To acquire data using Ethernet IOT Data Acquisition using Ethernet Port
19. To acquire data using Wi-Fi IOT Data Acquisition using Wi-Fi Port
20. To acquire data using GPRS IOT Data Acquisition using GPRS Port
21. To convert acquired serial data into Ethernet data using Serial to Ethernet Converter
22. To convert acquired serial data into Wi-Fi data using Serial to Wi-Fi Converter
23. To convert acquired serial data into GPRS data using Serial to GPRS Converter
24. To convert MODBUS RTU Protocol to MODBUS TCP
25. To use and connect 24 VDC Isolated Power Supply
26. To use and implement Isolated MODBUS RTU Master Port

C. Server and Cloud Experiments

27. To acquire Humidity and Temperature data serially and store them into cloud using Ethernet
28. To acquire Humidity and Temperature data serially and store them into cloud using WiFi
29. Acquire Humidity and Temperature data serially and store them into cloud using GPRS