



UNDERSTANDING OF ELECTRO-MYOGRAPH – EEG MODEL-EMG100

This trainer has been designed with a view to provide practical and experimental knowledge of Electromyograph - EEG Monitor used for EEG training in Biomedical Engineering.



SPECIFICATIONS

1. Hardware

Following Parts are assembled on Single PCB of size - 18 Inch x 15 Inch

1. Electromyograph Monitor Board

1. Real time EMG wave measurement
2. Bipolar Real Time EMG
3. Normal EMG
4. Excited EMG
5. Raw EMG
6. Filtered EMG
7. Filter (Band Pass) 1 Hz – 10KHz
8. Notch Filter 50Hz
9. Surface Electrodes (Ag-AgCl)
10. information about 10 simulated EMG outputs
11. No of Channel One
12. Study of Muscle Activity & Signal Processing
13. Unipolar & Bi-polar Mode
14. EMG & Cal Mode,
15. Gain & Cal adjustable
16. Disc or disposable Electrodes
17. Real time Waveform Measurement
18. DSO output through 2mm socket
19. Test point on the Board
20. Study & signal processing output for each Block Threshold & Output adjustable
21. Power Supply 230 \pm 10%, 50Hz
22. PC connectivity - USB

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. | USB Cable | : 1 No |
| 2. | Required Connecting Electrodes | : 1 Set |
| 3. | Power Supply Adaptor | : 5V, 2A - 1 No |
| 4. | Jumper wires | : 50 Nos. |
| 5. | Pen Drive with Software, Library, Driver, Codes, Soft Copy of Manual and Mobile App | : 16 GB |
| 6. | Printed Practical Manual | : 1 No. |
| 7. | E-Books for Biomedical IOT Subject | : 10 Nos. in PDF Format |
| 8. | Mp4 Video Class for Biomedical IOT Subject | : 40 Nos |
| 9. | Excitation accessories for each sensor | |

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

1. To understand theory of Electromyograph - EEG
2. To study Normal EMG, Excited EMG, Raw EMG and Filtered EMG
3. To understand theory, working and Block Diagram of EEG
4. To understand information about 10 simulated EMG outputs
5. To understand installation procedure of EEG Monitor.
6. To study of Real Time analysis of EEG
7. To understand Interface and Connection Diagram of EEG Monitor.
8. To Observe different types of EEG conditions - Normal EMG, Excited EMG, Raw EMG and Filtered EMG
9. To monitor EEG Waveforms of a person in different conditions and to interpret it
10. To understand how to testing and calibrate any Make EEG Monitor
11. To understand Trouble shooting procedure
12. To Observe different types of EEG Waveforms of a person on Computer using PC interface
13. To Observe different types of EEG Waveforms of a person on CRO using 2 mm sockets
14. To send EEG Data using Wifi Wireless Node to Main Base IOT Receiver