Advanced Training Institute

Industrial Attachment

Course Duration: 3 Months Course Fee: 15,000/-

Course Outline

(Syllabus) for EEE, ET, ENT, IPCT. POWER.

Basic Electrical Knowledge

1. Discussion of electrical work restrictions, principles and line voltage, phase voltage & short circuit.

2. Discussion About Domestic Electrification using transformers, energy meters, circuit breakers and switches from 11KV Distribution Line.

Monitoring and measuring Electrical Meters.

1. Ammeter, Voltmeter, Ohmmeter. Frequency meter, Power Factor Meter, connection and measurement.

House Wiring

1. Technique of running multiple lamps in one switch with series and parallel connections.

2. Techniques for Wiring a Room Using Power Load and Lighting Load Separately.

3. Using Two Way Switch How to control a lamp from two places.

4. Using Intermediate Switch How to control a lamp from many places.

5. Detailed Discussion of Procedure in Tube light Connection Diagram.

6. Detailed Discussion Room Monitoring Diagram Using Calling Bell.

7. Detailed Discussion of Procedure in Celling Fan Connection Diagram with Capacitor.

Motor Controlling

1. Structure of Push Button Switch.

2. Structure and Principle of Magnetic Contactor.

3. Working Principle of Relay and Timer.

4. Working Principle of Overload Protectors.

5. Single Phase Motor Connection with capacitor.

6. Three Phase Motor Connection.

7. Single Phase & Three Phase Motor Troubleshooting Techniques.

8. Motor on Condition, Motor Off Condition, Motor Trip Condition.

9. Manual And Automatic DOL starter Control and power circuit.

10. Manual And Automatic Reverse-Forward Starter Control and power circuit.

11. Manual And Automatic Star-Delta Starter Control and power circuit.

12. Star to Delta with Forward and Reverse Control Connection. 23. Structure and Character of Float Switch.

13. Automatic single and three phase water pump control using Float switch. motor will start automatically when tank is empty and automatic motor will stop when tank is filled.

14. An overhead tank and a reserve tank are two automatic controls by Float switch.

15. Manual And Automatic Traffic Signal Control.

16. Structure and Character of AC/DC Relay.

17. Structure and Character & Uses of Limit Switch.

18. Structure and Character & Uses of Photo Sensors

19. Structure and Character & of Proximity Sensors.

20. Pressing the switch then turn on the motor and turn off automatically after five minutes.

21. The motor will turn on after five minutes of pressing the switch and automatic turn off after 5 minutes

22. Process of making disinfectant spray canal using limit switch.

23. If you press the switch, a motor will run for 5 minutes, rest for five minutes and continue for five minutes until it is turned off by the off switch.

24. Auto and manual control of one motor from multiple places using photo sensor, proximity sensor, selector switch, limit switch

25. If any object in front of the photo sensor actually turns on the conveyor belt motor after 10 seconds, Total Operation Automatic Shutdown exactly ten minutes after launch.

26. Automatic motor shutdown technique when internal temperature of motor increases.

27. Technique for making phase failure relay with three relays of 220V.

28. Technique for making phase failure relay with two relays of 220V .

29. To achieve the ability to make diagrams as soon as the customer asks.

30. Techniques for controlling Auto Transfer Switch (ATS).

31. Three Phase Transformer. Diagram of Industrial Electrification Technique/ Installation Technique using HT, LT, MDB, SDB, will be explained by diagram.

32. Air Compressor Automatic Control Techniques.

Automation

1. Introduction to PLC.

2. Program & practice DOL using PLC.

3. Program & practice Reverse Forward Starter using PLC

3.Program & practice Star Delta Starter using PLC.

4. Automatic Traffic Signal Control.

5. Program & practice random circuits using PLC.

6. Hardware connection of VFD/ Inverter.

7. Parameter Setting of VFD/ Inverter.

8. Motor Control by Keypad Mode on VFD/ Inverter.

9. Motor Control by Terminal Mode on VFD/ Inverter.

10. Introduction to HMI.

11. Application and Advantage of HMI.

12. Basic Design Of HMI.

13. PLC, VFD & HMI Modbus Communication.

14. More projects Using (PLC, VFD & HMI)

Machine Repair & Designed

1. Automatic Filling Machine Program & Practice.

2. Automatic Capping Machine Program & Practice.

3. Automatic conveyor belt control using PLC

4. Automatic Water Treatment Plant Control Using PLC

5. Textile Industry Visit.

6. Substation and Switchgear Manufacturing Industry Visit.

7. Full Preparation of ABC License.

8. Job Interview Demo Class.

9. we also help Our students for getting Job.