

Electrical Drawings and Control Circuits

DAY 1

Introduction, Types of Drawings and Symbols

- Importance and Relevance of Drawings
- Categories of Electrical Drawing and their Characteristics
- Purposes served by Different Type of Electrical Drawings
- International Electrical Symbols and Drawings
- Applications and Functions of Numerical Relays
- Importance of CTs and VTs Information in Electrical Drawings

DAY 2

Interpretation and Significance of Single Line Diagrams

- Onset of a Single Line Diagram
- Importance of Single Line Diagrams
- Standardised Drawing Symbols
- Protective Devices Coordination in Single Line Diagrams
- Fault Current Calculations with Information from the Single Line Diagram
- Troubleshooting and Electrical Installation with the Relevant Diagrams

DAY 3

Ladder Diagrams Interpretation

- Types of Ladder Diagram
- Generic Electrical Equipment Ladder Diagrams
- Designing Control Circuits
- Interlock Control Circuits
- Protective Relays and Timers Ladder Diagrams
- Fail Safe Designs

DAY 4

Schematic and Control Circuits and its Merits

- VFD Schematics and its Operation related to Controlling Circuits
- UPS Power Supply Schematic Diagram Components Functionalities
- Reading and Tracing AC Input Diagrams and its Significance
- Identify Components in the Rectifier, Inverter and AC Outputs Schematic Diagrams
- Types of Protection Relays Schematics, Wiring, Operation and Functional Diagrams
- Motor Installation and Control Circuits

DAY 5

Logic Circuit Applications and Troubleshooting Strategies

- Logic Gates and Characteristics
- Digital Logic Functions
- Programmable Logic Controllers
- Process and Instrument Diagrams
- Troubleshooting Strategies
- Q&A and Wrap-up Session