



an  eegis company

بروجاكس للتدريب والتطوير
Projacs Training and Development

Electrical Drawings & Schematics

A Member of:



PROJACS ACADEMY



ProjacsAcademy.com



Introduction

An electrical circuit diagram is a graphical representation of how electrical components are connected in order to perform a desired function. There are actually multiple types of circuit diagrams, with each type serving a unique purpose. This module discusses block, schematic, layout, and wiring diagrams.

Objectives

The course enables the engineers to read and understand the electrical diagrams, recognize equipment and verify the integrity of the existing schematics. The trainees will understand electrical symbols, one-line and three-line electrical schematics and their content, including basic layout and legends.

Practical exercises will be demonstrated on schematic reading, diagram verification and the steps required for creating and maintaining accurate one line diagrams.

Course Outline

- Mapping of installed equipment
- Drawing one line diagram
- Create and maintain regulatory compliant electrical diagrams

Manufacturers Standards

- Introduction to legend
- Electrical Symbols
- Review of standard symbols, and
- Symbol identification and meaning.

Basic layout

- Layout of different schematics and one line diagrams

Schematics Diagrams

- DC voltage schematic
- AC Voltage Schematic

- Equipment identification
- Trouble shooting and fault finding.

Introduction of Electric Circuits

- Series circuits,
- Parallel circuits, and
- Series/parallel circuits.

Drawing Single-Line Diagram

- Purpose of a single line
- Equipment identification, and
- Hazardous energy control

Three-Line Diagram

- Practical exercise using elementary diagrams

Block diagram

Troubleshooting and Verification of accuracy.

- Effective trouble shooting approach
- Evaluating and assessing the fault mapping a solution

Identifying the hazards

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- slides and handouts
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:

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|---------------------|--------------------|
| • Technical Session | 08:30 – 10:00 am |
| • Coffee Break | 10:00 – 10:15 am |
| • Technical Session | 10:15 – 11:30 noon |
| • Coffee Break | 11:30 – 11:45 am |
| • Technical Session | 11:45 – 01:00 pm |
| • Lunch | 01:00 – 02:00 pm |
| • Technical Session | 02:00 - 03.45 pm |

Course Fees

\$3,200 per participants

Special discounted rate for PDO \$2,500 per participants