Course : AutoCAD Electrical, electrical schematic design

Practical course - 3d - 21h00 - Ref. TDL
Price : 1630 CHF E.T.

★★★★⯪ **4,6 / 5**

You will master AutoCAD® Electrical, the CAD software used to design electrical control systems. You'll learn how to create a schematic with its components and generate bill of materials reports.

🎯 Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Discover electrical control system design features with AutoCAD® Electrical
- ✓ Drawing a diagram with its components
- ✓ Design a tour and add descriptive texts
- ✓ Drawing a panel with its components
- ✓ Generate reports

Intended audience

Managers, architects, engineers, technicians, draughtsmen, drawing designers in design offices involved in creating and modifying drawings.

Prerequisites

Good knowledge of a graphical operating system. Experience required.

Practical details

Hands-on work

Discussions, experience sharing, demonstrations, tutorials and case studies.

Teaching methods

Active pedagogy based on examples, demonstrations, experience sharing, case studies and assessment of learning throughout the course.

Course schedule

PARTICIPANTS

Managers, architects, engineers, technicians, draughtsmen, drawing designers in design offices involved in creating and modifying drawings.

PREREQUISITES

Good knowledge of a graphical operating system. Experience required.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Introduction

- Application menu. Quick access toolbar.
- Ribbon, tabs and function groups.

Exercise
Personalized space management.

2 Project basics

- Standards. Use of templates and selection for a new design.
- Add drawing and description to project.
- Single-phase wire insertion and cutting.

Exercise
Creating a project.

3 Using schematic components

- Inserting a parent component.
- Inserting symbols.
- Modify and link components.
- Insert/modify a contact.
- Connecting components with wires.

Exercise
Draw a diagram.

4 Circuits

- Extension of the three-phase connection.
- Create and insert a motor circuit.
- Insertion of a three-pole fuse disconnector.
- Insertion of the motor starter coil circuit on the control diagram.

Exercise
Circuit design.

5 API

- Insert single-phase ladder diagrams in drawings and insert PLC modules.
- Delete ladder diagram bars.
- Insertion of a limit switch.
- Terminal insertion.
- Annotation of PLC I/O descriptions.
- Add descriptive text.

Exercise
Create a diagram with API module.

(6) Equipotential numbers

- Association of source and destination signals with neutral wires.
- Automatic insertion of equipotential numbers.
- Use of thread layers.
- Modification of son layer assignments.

Exercise
Creating a structure with layers.

(7) Panel presentation

- Inserting panel components.
- Create a catalog assignment for automatic dimensioning.
- Manual insertion of the system reset encoder and LED.
- Modify and move attributes.
- Insert nameplate.

Exercise
Draw a panel with its components.

(8) Report generation

- Generate BOM reports.
- Insertion of BOM tables.
- Export BOM to Excel.

Exercise
End-of-course project.