



## **AutoCAD Advanced for Electrical Engineers**

**(Duration: 80 Hrs)**

### **Course Curriculum**

#### **Chapter 1: Basics of Electrical Drawings**

- Need of Drawings
- Electrical Drawings:
  - Circuit Diagram
  - Wiring Diagram
  - Wiring Schedule
  - Block Diagram
  - Parts List
- Symbols in Electrical Drawings
  - Conductors
  - Connectors and Terminals
  - Inductors and Transformers
  - Resistors
  - Capacitors
  - Fuses
  - Switch Contacts
  - Switch Types
  - Diodes and Rectifiers
  - Earthing
- Wire and Specifications
- Types of Wires
- Labeling

#### **Chapter 2: Introduction to AutoCAD Electrical**

- Introduction to AutoCAD Electrical & Interface
- Interface Components and Commands
- Workspace Settings
- Electrical Help
- Drawing Files
- Electrical Components and Wires
- Design Methodologies

#### **Chapter 3: Project Files and Drawings**

- Project Manager Interface
- Accessing Project Files
- Opening / Creating Drawing
- Add a Drawing to a Project File
- Managing Drawings in Projects

- Project Manager Drawing List

#### **Chapter 4: Schematics I – Single Wires/Components**

- Referencing
- Ladders
- Insert Wires
- Edit Wires
- Add Rungs
- Wire Setup
- Wire Numbers
- Source & Destination Signal Arrows
- Parent/Child Components

#### **Chapter 5: Schematics II – Multiwire and Circuits**

- Dashed Link Lines
- 3-Phase Ladders
- Multiple Wire Bus
- 3-Phase Components
- 3-Phase Wire Numbering
- Cable Markers
- Fan In/Out
- Insert Saved Circuits
- Copy / Move Circuit
- Circuit Builder

#### **Chapter 6: Editing Commands**

- Edit Component
- Updating Drawings
- Scoot
- Move, Copy, Align and Delete Component
- Copy Catalog Assignment
- Copy Installation/Location Code Values

#### **Chapter 7: Panel Drawings**

- Insert Footprint
- Insert Component
- Edit Footprint
- Assign Item Numbers
- Add Balloons

#### **Chapter 8: Terminals**

- Insert Terminal Symbols
- Multiple Level Terminals
- Multiple Insert Component Command

- Insert Jumpers
- Terminal Strip Editor

### **Chapter 9: PLC Symbols**

- Insert PLC (Parametric)
- Insert PLC (Full Units)
- Insert PLC I/O Points
- PLC Based Tagging
- Spreadsheet to PLC I/O Utility

### **Chapter 10: Wiring**

- Insert Connectors
- Edit Connectors
- Insert Splices
- Insert Multiple Wires
- Bend Wires

### **Chapter 11: Symbol Creation**

- Schematic Symbols
- Naming Convention
- Icon Menu Wizard
- AutoCAD Electrical Databases
- Project database
- Catalog Database
- Footprint Lookup Database
- PLC Database

### **Chapter 12: Title Blocks & Reporting Tools**

- Update Titleblocks
- Titleblock Setup
- Create Reports
- Electrical Audit

### **Chapter 13: Settings and Templates**

- Project Properties
- Drawing Properties
- Panel Drawing Configuration
- Template Files
- Sharing Symbol Libraries and Databases

### **Chapter 14: Industrial Live Case Study / Project**

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