

COURSE TEMPLATE

Application Details

*Category	FOCUS_AREA
*Focus Area/Industry	Industry 4.0,
*Sector	

Course Details

*Course Name	AutoCAD Electrical - 4Days Training		
*Course Overview	This 4-day hands-on training introduces participants to the tools and workflows of AutoCAD Electrical, focusing on electrical schematic design, panel layout, and automation tools. The course emphasizes best practices in creating, managing, and documenting electrical control systems, with practical exercises and real-world applications.	*Course Objective	To enable participants to efficiently develop electrical control designs, utilize built-in libraries and tools, generate accurate documentation, and streamline the engineering process using AutoCAD Electrical.
*Target Group (By designation)	1)Electrical engineers and technicians involved in automation or control system design. 2)CAD drafters transitioning from AutoCAD to AutoCAD Electrical. 3)New AutoCAD Electrical users in manufacturing, utilities, oil & gas, and related industries. 4)Professionals needing to generate detailed electrical drawings, panel layouts, and reports.	Minimum Training Requirement (If any)	Basic knowledge of electrical schematics and components. Familiarity with Windows-based software and file systems. Prior experience with AutoCAD is beneficial but not required. Access to AutoCAD Electrical software and a capable workstation.

*Course Learning Outcome (CLO)	*CLO Statement		*Learning Domain
	Upon completion of this course, participants will be able to:		
	CLO 1	Understand the AutoCAD Electrical interface and project structure.	Knowledge - Level 1
	CLO 2	Create and manage schematic drawings with standard electrical symbols.	Skill - Level 1
	CLO 3	Utilize wire tools, numbering, and tagging features for circuit clarity.	Skill - Level 1
	CLO 4	Design, reuse, and manage custom circuits using Circuit Builder.	Skill - Level 2
	CLO 5	Insert and configure ladder diagrams, terminals, and PLC modules.	Skill - Level 2
	CLO 6	Generate accurate panel layouts and assign physical footprints.	Skill - Level 2
	CLO 7	Create custom symbols and manage part catalogs for project consistency.	Skill - Level 3
	CLO 8	Produce automated reports (BOM, wire list, terminal list) and export data to multiple formats.	Skill - Level 3
	CLO 9		Please choose one
	CLO 10		Please choose one

Mapping of Training Modules and CLO

*Module	*CLO	*Theory Duration (Hours)	*Practical Duration (Hours)	Total Hours	Practical Elements (if any)
1)Introduction to AutoCAD Electrical: Overview of the software, key differences from AutoCAD, UI navigation, and project setup.	1	3.5		3.5	
2)Schematic Component Design: Inserting electrical symbols, wire tools, tagging, and error checking.	2	1	2.5	3.5	
3)Circuit Creation & Management: Building reusable circuits, copying across drawings, and using Circuit Builder.	3	1	2.5	3.5	
4)Ladders, Terminals & Signal Arrows: Ladder diagram setup, rung formatting, terminal strip editing, and cross-referencing.	4	0.5	3	3.5	
5)Panel Layout Design: Inserting panel components, ballooning, footprint assignment, and layout tools.	5	0.5	3	3.5	
6)PLC Modules & Addressing: Working with PLC I/O modules, addressing techniques, and symbol management.	6	1	2.5	3.5	

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				0	
Total Hours		10.5	18	28.5	
		Grand Total Hours			

PRACTICAL CENTRIC:

N/A

Mapping of CLO with Training Strategies and Assessment Method

*CLO	*Training Strategy	*Assessment Method	*Assessment Weightage (%)
1	Lecture	Quiz	10
2	Hands-on	Demonstration	15
3	Hands-on	Demonstration	15
4	Hands-on	Demonstration	10
5	Hands-on	Demonstration	15
6	Hands-on	Demonstration	10
7	Hands-on	Demonstration	10
8	Hands-on	Demonstration	15
	Please choose one	Please choose one	
	Please choose one	Please choose one	
Total Weightage			100

Note:

- *compulsory field to be filled.
- Fill the course details carefully in this excel document (soft copy) and submit this template via online submission form