

## National Institute of Electronics and Information Technology

(An ISO 9001:2015 certified Organization) Ministry of Electronics and Information Technology Government of India

# Online Course Prospectus

# AutoCAD Electrical

### **Course Description:**

This course is meticulously designed to equip students with the requisite skills to proficiently utilize a spectrum of basic to advanced tools and commands in AutoCAD Electrical, specifically tailored for the professional design of electrical control systems. The pedagogical approach strategically initiates with fundamental tools, enabling students to adeptly create and edit elementary electrical drawings. This course provides a nuanced and practical exploration of AutoCAD Electrical. Participants will gain the expertise necessary to navigate complex design challenges, ensuring a seamless transition into professional practice within this specialized domain.



OR



### **Course Content**

SN.	Unit	Contents		
1.	Introduction to Basic AutoCAD	<ul> <li>2D Drawings</li> <li>Introduction to 2D screen</li> <li>Basic 2D objects</li> <li>Modifying 2D drawings, Layers tool, Blocks,</li> <li>Hatching and Gradient</li> <li>2D Drawings</li> </ul>		
2.	Annotation	<ul> <li>Units in AutoCAD</li> <li>Dimensioning</li> </ul>		
3.	Introduction to AutoCAD Electrical	<ul> <li>Project Manager</li> <li>Project Properties</li> <li>Project Setting</li> <li>Component Tagging</li> </ul>		
4.	Preparing an Electrical Drawing	<ul> <li>Create a new drawing</li> <li>Add drawing, Add Active Drawing, Remove Drawing, Grouping drawing</li> <li>Drawing Properties</li> </ul>		
5.	Symbol Libraries & Symbol Builder	<ul> <li>Schematic Component</li> <li>Schematic Component using Icon Menu</li> <li>Inserting Schematic Components</li> <li>Inserting Multiple Components</li> <li>Attributes tools</li> </ul>		
6.	Wires	<ul> <li>Wire type</li> <li>Inserting Wire Layers</li> <li>Inserting Multiple connection</li> <li>Trim Wire, Strech Wire, Wire gaps, Modify Wire, Show Wire, Check Trace, Wire No, Wire Tagging, Three Phase Wire No, PLC I/O Wire No, Align Wire No, Copy Wire No, Wire No Leaders etc.</li> </ul>		
7.	Electrical Circuit Design	<ul> <li>Circuit Builder</li> <li>Copy, Move &amp; Save Circuit</li> </ul>		
8.	Connectors	<ul> <li>Inserting Connectors</li> <li>Editing &amp; Modify Connectors</li> </ul>		
9.	Conversion Tool	<ul> <li>Convert Components in Electrical Components</li> <li>Convert text or simple wire No in to Electrical Wire No</li> </ul>		
10.	PLC (Programable Logic Controller)	<ul> <li>Generate PLC Layout Modules</li> <li>PLC Parametric Selection &amp; PLC Full Units</li> <li>Edit PLC Module</li> </ul>		
11.	Panel Design	<ul> <li>Creating a Panel Layout</li> <li>Foot print on Schematic list &amp; Foot print for icon menu</li> <li>Din Rails, Balloons, Wire Annotation, Name Plate, Edit &amp; Modify Foot print</li> <li>Panel Component terminals, Placing of Schematic Component Terminal</li> </ul>		
12.	Audit & Reports	<ul> <li>Electrical Audit, Drawing Audit &amp; Missing Catalog</li> <li>Generate Reports, Types of Schematic Reports, Editing BOM to drawing</li> <li>Type of Panel Report, generate a Panel Report, Editing of Panel BOM</li> <li>Run Automatic Report</li> </ul>		

#### Who can attend?

Anyone who is interested to build their career in Designing, including:

- Beginners
- Professionals looking to upgrade their knowledge and expertise.
- Students who wish to pursue a career in designing.

#### Prerequisite

Basic knowledge of computers.

#### Duration

4 Weeks

The internship/industrial training programme includes about 40 Hrs of intensive interactive instructor-led online sessions and about 60 Hrs of practical assignments that student can perform at their end.

#### Certificate

e-Certificate will be issued to each participant after completion of the training. The participant needs to maintain minimum 75% attendance during the online classes and is required to score minimum 50% marks in the online test in order to successfully complete the course.

#### **Minimum Requirements**

- Good internet connection.
- Candidate must have latest PC / laptop with preferably 4 GB RAM or higher.

#### How to Apply

Interested candidates may apply online on the link <u>https://nielit.gov.in/haridwar/content/online-courses</u> after submitting the Course Fee in following account:

Name	:	NIELIT Haridwar
Account Number	:	12922122001331
IFSC Code	:	PUNB0129210
Bank Name	:	Punjab National Bank
Branch	:	Pentagon Mall, SIDCUL, Haridwar

**NOTE:** Copy of transaction slip is required to be uploaded at the time of filling online form. Candidatemay keep a copy of the same for future reference.

#### **Terms and Conditions**

- In case, any registered candidate could not attend the online session due to technical issue at their side there will not be any refund of the course fee and thesessions will not be repeated.
- 2 In case, the online course is cancelled/postponed due to some technical issue at NIELIT side and new date is not convenient to the candidate, our liability is limited to the refund of the course fee and NIELIT shall not be responsible for any consequential damages.

#### **Course Coordinator**

Mr. Kailash Chandra Joshi Ph: 8171627088 Email: <u>haridwar@nielit.gov.in</u>



**NIELIT Haridwar** is the Regional Centre of NIELIT in the state of Uttarakhand and is situated in SIDCUL Haridwar. It is well known for the advanced training programmes in the areas of Future Skills such as **Cloud Computing**, **Machine Learning**, **Artificial Intelligence**, **Internet of Things**, **MATLAB**, **Big Data**, **Embedded Systems etc.** in addition to the various National Skill Qualification Framework (NSQF) aligned long-term and short-term courses in Electronics & Information Technology. The Centre has **MOUs** with various prestigious institutions and Universities of Uttarakhand for academic collaboration, technical support, summer/industrial training and internships of the students. The Centre provides a conducive learning environment with the state-of-the-art infrastructure and expert faculties.

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#### **NIELIT Haridwar**

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