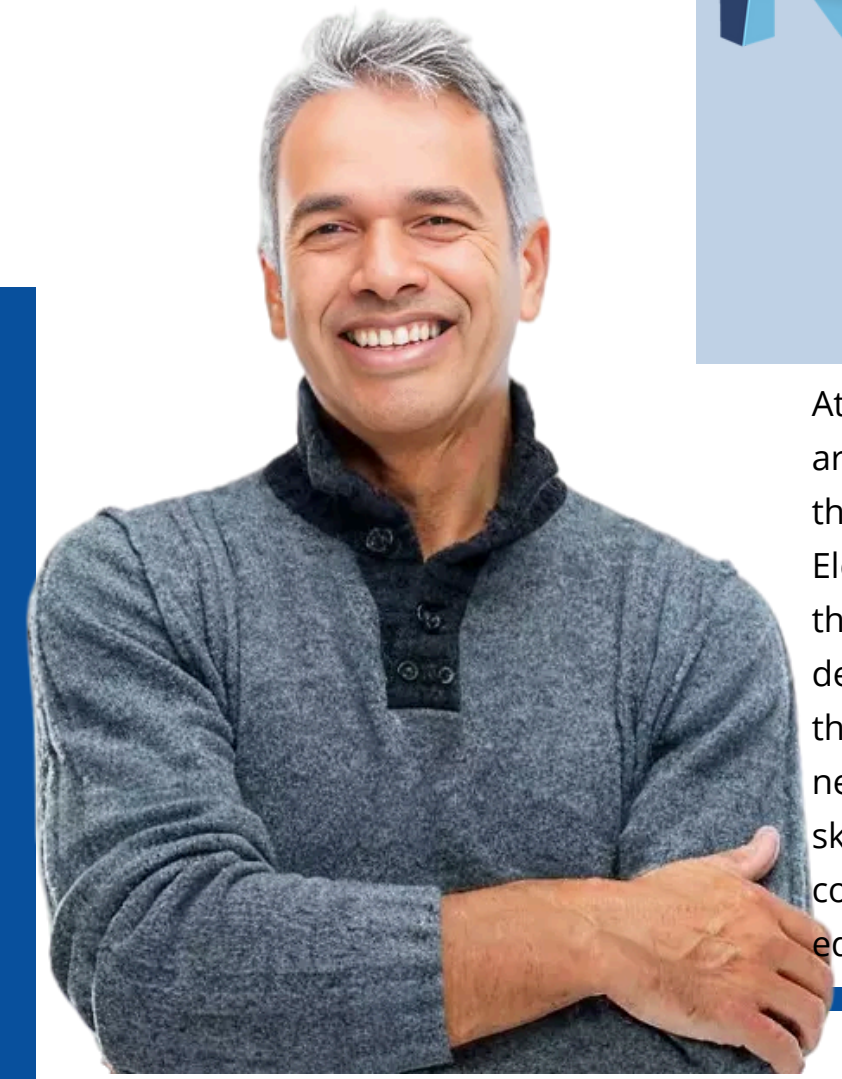
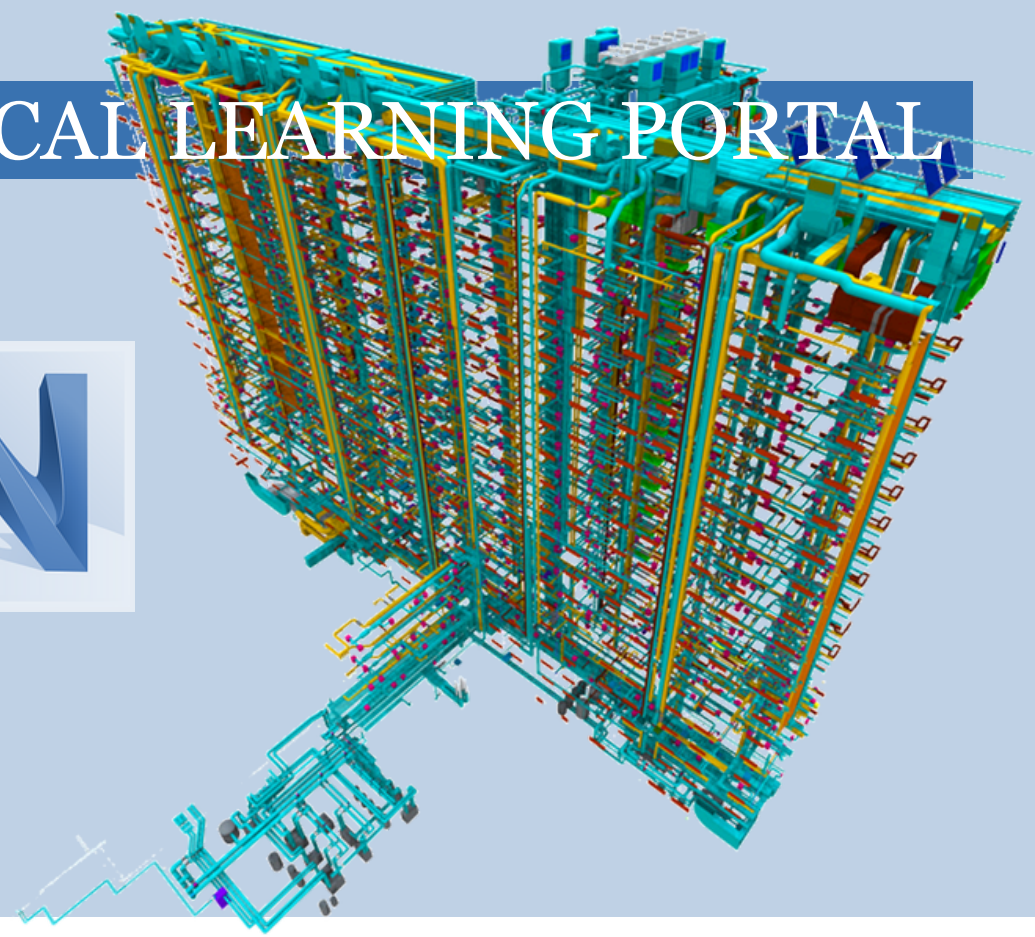
ENGINEERS' CERTIFICATION PROGRAM

Engineering Skills



ELECTRICAL LEARNING PORTAL

ELP



At Electrical Learning Portal (ELP), we are dedicated to shaping the future of the electrical and MEP (Mechanical, Electrical, and Plumbing) industries through professional training and development. Our mission is to bridge the gap between the ever-evolving needs of employers and the dynamic skill set of engineers by providing comprehensive, industry-relevant education and training.

Degree + Skills = Career Growth

CONTACT US

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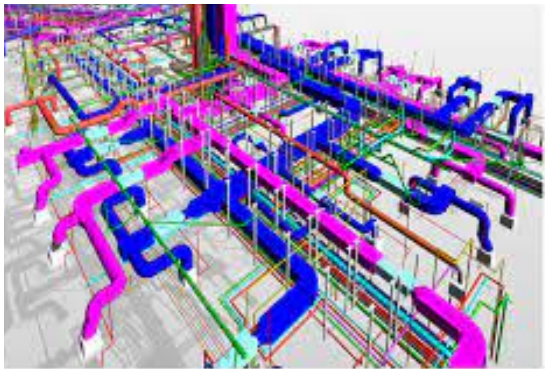
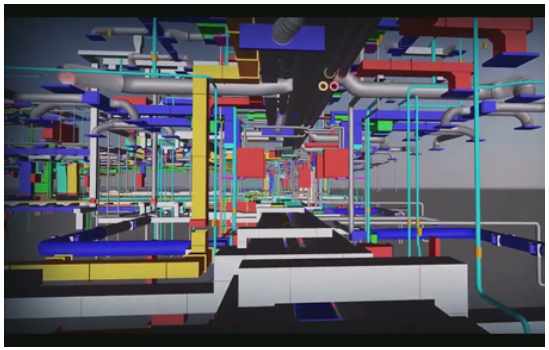
REVIT MEP AND NEVISWORKS

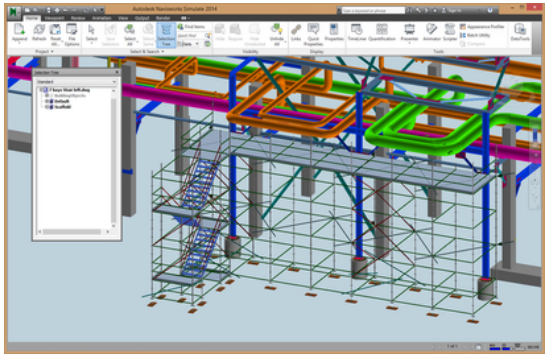
To take full advantage of Building Information Modelling, the Autodesk Revit MEP: Fundamentals training course has been designed to train engineers with the concepts and principles of creating 3D parametric models of MEP systems from engineering design through construction documentation. The training course is intended to introduce learners to the software's user interface and the HVAC, electrical, and piping/plumbing components that make the Autodesk Revit software a powerful and flexible engineering modeling tool.



Additionally, the course will provide an introduction to Navisworks, a project review software used to improve BIM coordination, reduce risk, and enhance project outcomes. Learners will gain insights into how Navisworks can integrate with Revit for comprehensive project reviews and clash detection.



The training course will also familiarize learners with the tools required to create, document, and print the parametric model. The examples and practices are designed to take the students through the basics of a full MEP project from linking an architectural model to construction documents.



TOPICS

Chapter 1: Introduction to BIM and Autodesk Revit

o BIM and Autodesk Revit
o Overview of the Interface
o Starting Projects
o Viewing Commands

Chapter 2: Basic Sketching and Modify Tools

o Using General Sketching Tools
o Inserting Components
o Selecting and Editing Elements
o Working with Basic Modify Tools

Chapter 3: Basic Systems Tools

o Connecting Components
o Working with Additional Modify Tools
o Creating Systems – Overview

Chapter 4: Starting Systems Projects

o Linking in Revit Models
o Setting Up Levels
o Copying and Monitoring Elements
o Batch Copying Fixtures
o Coordinating Linked Models

Chapter 5: Working with Views

o Setting the View Display
o Duplicating Views
o Adding Callout Views
o Creating Elevations and Sections

Chapter 6: Setting Up Spaces

o Preparing a Model for Spaces
o Adding Spaces
o Working with Spaces

Chapter 7: Heating and Cooling Loads Analysis

o Creating Zones
o Applying Colour Schemes
o Analysing the Heating and Cooling Loads

Chapter 8: HVAC Networks

o Adding Mechanical Equipment and Air Terminals
o Adding Ducts and Pipes
o Modifying Ducts and Pipes

Chapter 9: Plumbing Networks

o Adding Plumbing Fixtures and Equipment 9.2 Adding Plumbing Pi
o Modifying Plumbing Pipes
o Adding Fire Protection Networks

Chapter 10: Advanced Systems for HVAC and Plumbing

o Creating and Modifying Systems
o Creating Automatic Layouts
o Testing Systems

Chapter 11: Electrical Systems

- *o About Electrical Systems*
- *o Placing Electrical Components*
- *o Creating Electrical Circuits*
- *o Setting up Panel Schedules*
- *o Adding Cable Trays and Conduit*
- *o Testing Electrical Layouts*

Chapter 12: Creating Construction Documents

- *o Setting Up Sheets*
- *o Placing and Modifying Views on Sheets*
- *o Printing Sheets*

Chapter 13: Annotating Construction Documents

- *o Working with Dimensions*
- *o Working with Text*
- *o Adding Detail Lines and Symbols*
- *o Creating Legends*

Chapter 14: Adding Tags and Schedules

- *o Adding Tags*
- *o Working with Schedules*

Chapter 15: Creating Details

- *o Setting Up Detail Views*
- *o Adding Detail Components*
- *o Annotating Details*

Additional Tools

- *o Linking and Importing CAD Files*
- *o Building Type Settings*
- *o Defining Colour Schemes*
- *o Custom Duct and Piping Types*
- *o Work with System Graphics*
- *o Pressure Loss Reports*
- *o Guide Grids and Sheets*
- *o Revision Tracking*
- *o Annotating Dependent Views*
- *o Importing and Exporting Schedules*
- *o Creating Building Component Schedules*

Navisworks

Chapter 01: New for Navis works Manage

o Coordination and Integration
o Integration with Autodesk AutoCAD Navisworks
Integration with BIM360Glue
o Quantification Updates

Chapter 02: Introduction to Navisworks

o The Autodesk Navisworks User Interface
o Configuring Settings
o Managing Files
o Setting Units

Chapter 03: Exploring the Navigation Tools

o Using the Head-Up Display and Navigation Tools
o Cameras and Reference Views

Chapter 04: Selecting, Controlling, and Reviewing Objects

o Selection Tools
o Selection Sets
o Measuring and Redlining
o Controlling the Visibility of Objects, Using the Gizmo, Managing Links
o The Appearance Profiler Window

Chapter 05: Viewpoints, Sections, and Animations

o Working with Viewpoints
o Section Views, Animating Viewpoints

Chapter 06: Time liner

o Working with timeliner

Chapter 07: Working with Animator and Scripter

o Working with Animator
o Working with Scripter

Chapter 08: Quantification

o Quantification Workbook Window

Chapter 09: Clash Detection

o Working with Clash Detective
o Managing Clash Tests

Chapter 10: Autodesk Rendering

o Understanding the Autodesk Rendering Window
o Mapping, Lighting, Environments and Rendering Using Autodesk Graphics

Tools

o All Classes are Live via Google Meet or Zoom
o REVIT MEP, and Navisworks
o PDF notes (if applicable)

Benefits of the program

1. *Join the professional training*
2. *Understand the real world*
3. *Be a part of the Professional Engineers' Community*
4. ***Program Completion Certificates***
5. ***Join our engineers' WhatsApp Groups***

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