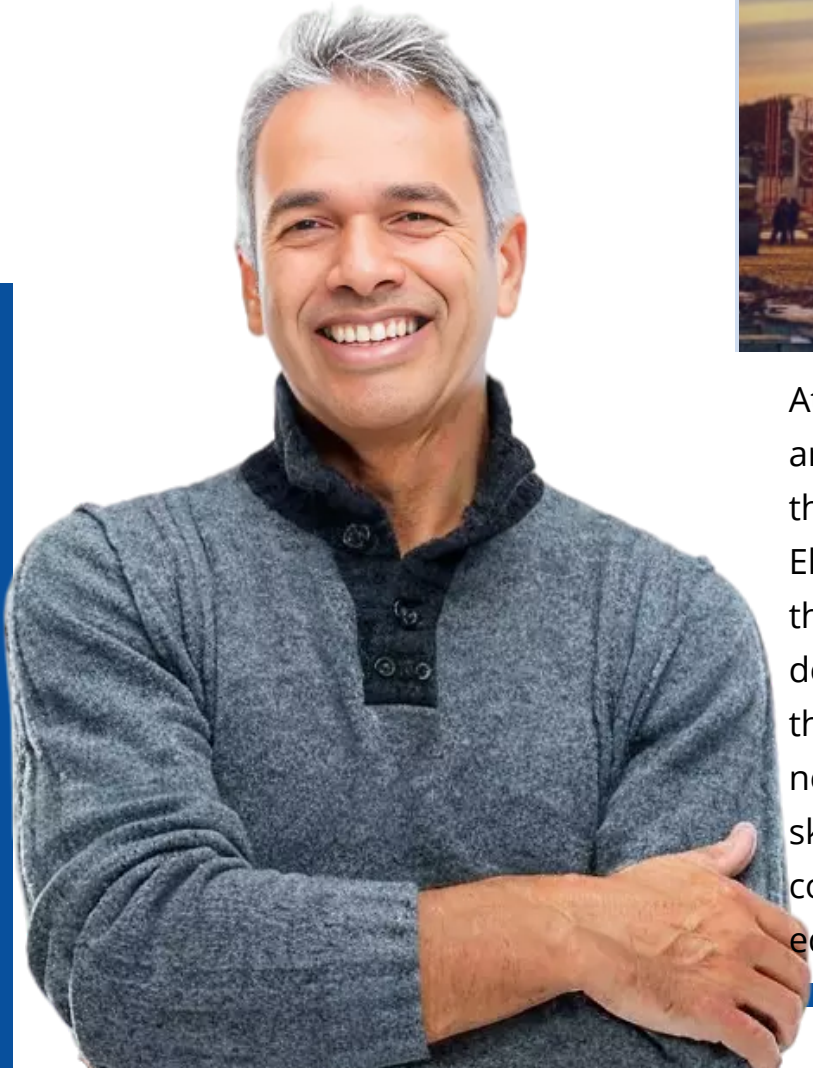# ENGINEERS' CERTIFICATION PROGRAM

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

Electrical Learning Portal | ELP
☎ +91-8430180594, +91-7055230623
✉ info@electricallearningportal.com
🌐 https://electricallearningportal.com

ETAP: AN ESSENTIAL TRAINING | LIVE

ETAP is a powerful software that is designed to perform simulations, analysis, and design of Power systems. ETAP has very vast capabilities such as Load flow analysis, Short Circuit, Protection coordination studies, cable ampacity study, and much more. Because ETAP has integrated all the functionality required for Electrical studies, it is preferred over other software packages.

This course is specifically designed to cover all the functionality of ETAP software. Industries nowadays are in pursuit of candidates having skills in Power system simulation packages. Knowing how to simulate power systems in ETAP can help students procure positions in the power sector.

This course also covers all the fundamentals of analyzing power systems, thus it will be easy for beginners to follow the course. Each lesson is tailor-made to be detailed and precise with practical examples. Engineers in the industry can update and refresh their knowledge, and learn to simulate in the ETAP package.

You will learn how to perform an analysis and selection of elements Ex: Grid, Transformer, Generator, Busduct, Cable, Circuit Breakers, Loads, etc. Additionally, you will learn about the Single Line Diagram, Electrical Drawings, Product Data Sheets, and the required essential parameters to start the power system analysis.

In this course, you will also gain an understanding of the relevant codes and standards, ensuring that you can design. You will also get hands-on experience using ETAP, which is a powerful tool used in the electrical engineering industry.
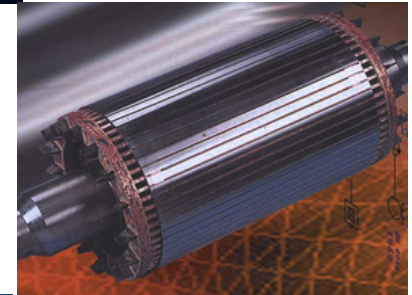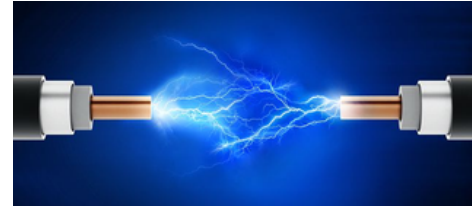
TOPICS

1. ETAP Over View

✓ ETAP Company Background

✓ ETAP Global Offices

✓ ETAP & Supporting Various Industries

✓ ETAP & Power System Solutions

✓ Quality Assurance, Technical Support & Trainings

2. ETAP License Selection Procedure

3. ETAP Software Installation

4. Introduction – Toolbars

5. Short Cut Keys

6. Project Settings & One Line Diagram

7. AC System Modelling Capabilities & New Features

8. 3-Dimension Toolbar, Revision Manager & Study Case

9. Model Toolbar, Data Manager, Configuration Manager

10. Schedule Report Manager, Auto Build Toolbar

11. Templates – Creation & Utilization

12. Theme Editor

13. System Manager

✓ One-Line Components

✓ Distribution Components

✓ Multi-Dimensional Database

✓ Rules & Libraries

14. Load Flow Study & Evaluation

✓ Data Requirements

✓ Calculation Methods

✓ Load / Generation Modeling in Power System

✓ Loading / Generation Categories

✓ Diversity / Demand Factors

✓ Parameter Settings /Adjustments

✓ Reports / Alerts

✓ Result Analyzer

✓ Exercise

15. Load Cases & Wizard

16. Configuration & Case Study Edit

17. Cable Sizing study

✓ Cable Editor / Library

✓ Cable Manager

✓ Cable Loading

✓ Cable Installation Types / Ampacity

✓ Cable Sizing Standards

✓ Cable Sizing Constraints

✓ Exercise

18. Transformer Sizing

✓ Transformer Sizing Concept

✓ Temperature Correction

✓ Load Variation

✓ Sizing Requirements

✓ Load Criteria

✓ Results

✓ Exercise

19. Short Circuit Analysis, Evaluation & Result Analyzer – IEC

✓ Data Requirements

✓ IEC 60909 Calculation Method

✓ Types of Short Circuit in IEC & Factors

✓ Device Duty Calculation

✓ Parameter Settings /Adjustments

✓ Reports / Alerts

✓ Result Analyzer & Exercise

20. Protective Device Coordination / Selectivity / Sequence-of-Operation/Relay Coordination

✓ Data Requirements
✓ Protection Equipment Library
✓ Protection & Selectivity Concepts
✓ Protective Device Arrangements
✓ Time-Current Characteristics
✓ Protective Device Coordination utilizing Short Circuit
✓ Parameter Settings / Adjustment
✓ Sequence-of-Operation Study
✓ Auto Coordination Concept & Application
✓ Study / Device Setting Reports & Exercise

21. Motor Acceleration

✓ Data Requirements
✓ Parameter Settings / Adjustment
✓ Reports / Alerts / Plots
✓ Exercise

22. Harmonics

✓ Data Requirements
✓ Harmonic Source Modeling
✓ Harmonic Library / Inter-Harmonics
✓ Harmonic Load Flow / Frequency Scan
✓ Parameter Settings / Adjustment
✓ Reports / Alerts / Plots
✓ Exercise

Arc Flash Studies

✓ Introduction to Arc Flash IEEE 1584-2018/2002
✓ Data Requirements (Bus – Rating & Arc flash)
✓ Edit Study Case (Arc Flash)
✓ Methods, Parameters, SC Standard, Alert
✓ Simulation Results
✓ Hazard / Warning Label Creation
✓ Time-Current Characteristics
✓ Display Options
✓ Report Manager
✓ AF Calculator

Tools

o All Classes are Live via Google Meet or Zoom
o MS PowerPoint slides and MS Excel Calculation sheets
o Power system study by ETAP tool

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 Group**

Contact:

+91-8430180594/+91-7055230623
info@electricallearningportal.com
https://electricallearningportal.com