

SEN EDS

A Place for learn and Explore the Electrical Design

Details of Distribution Systems with Manual Calculation

TRAINING FACILITIES

- Experienced Engineers as Faculties.
- Excellent Materials Provided. (Manuals, design calculation)
- Drawings of Sample Projects etc.
- Duration: 75 hours

COURSE CONTENT:

- Introduction to Electrical Design
- Introduction to Oil and Gas Industry
- Introduction to Operation of EPC Company
- Exploration of Electrical Design Calculations
- Introduction to ETAP Software (Optional)
- Calculation as per Electrical Standards
 - IEC Standards
 - Indian standards
 - IEEE Standards
 - ANSI standards
 - NEMA Standards

Exploration of Electrical Design Calculations

➤ Introduction to design

- Introduction of Electrical Power
- Fundamental of Electrical Design System.
- SLD Preparation.
- Introduction to Solar Power Plant and its Layout.
- Introduction to Hazardous Area
- Introduction to Transmission System.
- Introduction to Power System Analysis.

➤ Cable sizing calculation

- Specification
- HV cables and LV cable Sizing
- Cables Voltage Drop
- Cable Schedule
- Dc Cable Sizing
- Cable Laying Method
- Hume Pipe Sizing
- Cable Tray Sizing.
- Layout Preparation
- Load Calculation

➤ Calculation of PFC

- APFC
- Capacitor Bank Calculation.
- Importance of PFC
- Layout Preparation

➤ Transformer

- Specification
- Introduction to Transformer
- Transformer Capacity
- Designing the Industrial Transformers

➤ Generator

- Specification
- Functional requirement of DG set
- Generator Capacity

➤ Short Circuit Calculation

- Short circuit Calculation of Substation
- Short circuit Calculation of Industries.
- Short circuit Calculation of Residential projects.

➤ Battery

- Specification
- Battery Sizing Calculation
- UPS
- Fundamentals of Battery.

➤ Switch gear

- Specification of Switch Gear
- Circuit breaker Sizing
- CT & PT Sizing
- Bus bar Sizing
- Introduction to Relays
- Layout Preparation.

➤ Earthing

- Specification
- Industrial Earthing
- Switchyard Earthing
- NGR/NGT Calculation.
- Layout Preparation

➤ Lightning arrester calculation

- Specification
- Residential LA Calculation
- Power Plant / Industrial LA Calculation
- Switchyard LA Calculation
- Layout Preparation

➤ Lighting calculation

- Specification
- Indoor Lighting design
- Outdoor Lighting design
- Components of the System
- Layout Preparation

➤ Knowing Client Requirements & collection of specific data for projects.

- Bill of Quantities
- Pre Tendering and Post Tendering Document
- Vendor Specification Review

Interview Preparation for Engineers.