

SEN EDS

A Place for learn and Explore the Electrical Design

Details of Power System analysis with ETAP and Manual Calculation

TRAINING FACILITIES

- Experienced Engineers as Faculties.
- Excellent Materials Provided. (Manuals, design calculation)
- Drawings of sample Projects etc.
- Duration: 60 hours

COURSE CONTENT:

- INTRODUCTION TO POWER SYSTEM ANALYSIS
- LOAD FLOW AND SHORT CIRCUIT ANALYSIS
 - Project Settings and One Line Diagram.
 - ETAP Overview, Equipment Evaluation.
 - Load Flow analysis
 - Load Flow Cases and Wizard.
 - Configuration and Case Study.
 - Result Analyser of Load flow.
 - Short Circuit Analysis
 - Manual Calculation of Short Circuit Analysis.
 - Result Analyser of Short Circuit Study
- RELAY CO-ORDINATION IN ETAP
 - Protective Device Co-ordination and Selectivity.
 - Manual Calculation of Relay Co-ordination
 - Motor Modelling and Motor start
 - Motor Acceleration Static and Transients
- HARMONICS STUDY.
 - Introduction to Harmonics
 - Power Factor Correction Panel Calculation
 - Harmonics Studies and Filter Sizing

➤ ARC FLASH

- Ac Arc Flash Hazard Analysis

➤ TRANSIENT STABILITY ANALYSIS

- Transient Generator Modelling
- Transient Stability Analysis

TOTAL HRS FOR ALL MODULE: 60

Candidate Can Choose the Individual Module Also

➤ **MODULE NO: 1**

➤ INTRODUCTION TO ETAP

- Project Settings and One Line Diagram.
- ETAP overview, equipment Evaluation.
- Load flow Analysis
- Load flow Cases and Wizard.
- Configuration and Case Study.
- Result analyser of Load flow.
- Short Circuit Analysis
- Manual Calculation of Short circuit analysis.
- Result Analyser of Short Circuit Study.

HRS: 32

➤ **MODULE NO: 2**

➤ RELAY CO-ORDINATION IN ETAP

- Protective Device Co-ordination and Selectivity.
- Manual Calculation of Relay co-ordination
- Short Circuit Calculation in ETAP
- Manual Calculation of Short Circuit Calculation

HRS: 40

➤ **MODULE NO: 3**

➤ MOTOR ACCELERATION STUDY.

- Project Settings and One Line Diagram.
- ETAP Overview, Equipment Evaluation.
- Load Flow Analysis
- Load Flow Cases and Wizard.
- Configuration and Case Study.
- Result Analyser of Load Flow.
- Short Circuit Analysis
- Manual Calculation of Short Circuit Analysis.
- Motor Modelling and Motor Start
- Motor Acceleration Static and Transients

HRS: 40

➤ **MODULE NO: 4**

➤ HARMONICS STUDY.

- Project Settings and One Line Diagram.
- ETAP Overview, Equipment Evaluation.
- Load Flow Analysis
- Load Flow Cases and Wizard.
- Configuration and Case Study.
- Result Analyser of Load Flow.
- Short Circuit Analysis
- Manual Calculation of Short Circuit Analysis.
- Introduction to Harmonics
- Power Factor Correction Panel Calculation
- Harmonics Studies and Filter Sizing

HRS: 40

➤ **MODULE NO: 5**

➤ ARC FLASH IN ETAP

- Protective Device Co-ordination and Selectivity.
- Manual Calculation of Relay co-ordination
- Short Circuit Calculation in ETAP

- Manual Calculation of Short Circuit Calculation
- Ac Arc Flash Hazard Analysis.

HRS: 40

➤ **MODULE NO: 6**

➤ TRANSIENT STABILITY STUDY.

- Project Settings and One Line Diagram.
- ETAP Overview, Equipment Evaluation.
- Load Flow Analysis
- Load Flow Cases and Wizard.
- Configuration and Case Study.
- Result Analyser of Load Flow.
- Short Circuit Analysis
- Manual Calculation of Short Circuit Analysis.
- Motor Modelling and Motor Start
- Motor Acceleration Static and Transients
- Transient Generator Modeling
- Transient Stability Analysis

HRS: 40