Projacs
an egis company
بروجاكس للتدريب والتطوير
Projacs Training and Development

Electrical Diagrams, Calculation of Malfunctions and Documentation EMTP, ATP

الرسوم البيانية للمخططات الكهربائية وحساب الأعطال وتوثيقها

16 – 20 September 2019

Istanbul

A Member of:
PROJACS ACADEMY

ProjacsAcademy.com

Introduction

This Course is intended to promote the use of sound engineering principles in Electrical Diagrams. It is hoped that it will alert the electrical engineer or designer to the many problems that can be encountered in designing electrical systems

This course will provide the trainees the essential tools for the analysis, operation and design of electric power systems. The course will present the use of EMTP/ATP in the analysis of power system malfunction problems. The design of the switch gear system will be demonstrated, short circuit levels, selection of HV /LV switchboards, and relay coordination studies. Motors and their control systems will be investigated. The documentation of malfunctions will be presented as a tool of fault analysis.

Who Should Attend?

The course is targeted to Senior Technicians and Engineers working in Electrical wiring Systems Design, Planning, Installation, Protection, Maintenance, and Performance Monitoring.

Course Outline

DAY 1:

Elements of Electrical Diagrams

1. Utility

2. Bus

3. Transformer, 2-Winding

4. Transformer, 3- Winding

5. Cable

6. Transmission Line

7. Power Grid

8. Generator

9. Induction Machine

10. Lumped Load

11. Static Load

12. Capacitor

13. Ground Grid

14. Typical case study

DAY 2:

Load Flow Analysis

1. Load Flow Toolbar

2. Study Case Editor

3. Display Options

4. Calculation Methods

5. Required Data

6. Output Reports

7. Typical case study

DAY 3:

Malfunction Analysis

1. ANSI Short-Circuit

2. IEC Short-Circuit

3. Display Options

4. Calculation Methods

5. Output Reports

7. Relay coordination studies

6. Typical case study

DAY 4:

Motor Starting Analysis

1. Motor Starting Toolbar

2. Study Case Editor

3. Display Options

4. Calculation Methods

5. Output Reports

6. One-Line Diagram Displayed Results

7. Plots

8. HV /LV switchboards

9. Motor control centers

8. Typical case study

DAY 5:

Generating Reports

1. Report Generator

2. Understanding Results

3. Fault Analysis

4. Reliability Assessment

5. Data Exchange

6. Typical case study

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests

- Each participant receives a binder containing a copy of the presentation
- slides and handouts
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, and case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:

- Technical Session 08.30-10.00 am
- Coffee Break 10.00-10.15 am
- Technical Session 10.15-12.15 noon
- Coffee Break 12.15-12.45 pm
- Technical Session 12.45-02.30 pm
- Course Ends 02.30 pm

Course Fees*

- **2,950USD**
  **VAT is Excluded If Applicable*

مقدمة

يهدف هذا البرنامج إلى التشجيع على استخدام مبادئ الهندسة الصوتية في المخططات الكهربائية. ومن المؤمل أن ذلك سوف ينبه مهندسي الكهرباء و المصممن للعديد من المشاكل التي يمكن أن يواجهوها في تصميم الأنظمة الكهربائية

هذا بالطبع سوف يتعرف المتدربين على الأدوات الأساسية لتحليل وتشغيل وتصميم أنظمة الطاقة الكهربائية. و سيتم التعرف على كيفية استخدام خاصية ATP / في تحليل مشاكل و اعطال نظام الطاقة و تصميم النظام ، ومستويات الماس الكهربائى، واختيار توزيع الجهد العاليLV / وسيتم توثيق الأعطال كأداة للتحليل .

الحضور

وتستهدف هذه الدورة التدريبية الفنين والمهندسين العاملين في الأسلاك الكهربائية وأنظمة التصميم والتخطيط، و التركيب، و الحماية، و الصيانة، ومراقبة الأداء.