



an eegis company

بروجاكس للتدريب والتطوير
Projacs Training and Development

Electrical Installation Techniques, Testing, Handover, Operation & Maintenance تقنيات التركيبات الكهربائية، والاختبار، والتسليم والتشغيل والصيانة

14 – 18 June 2021

Istanbul



Introduction

This electrical installation training course will provide the engineers and senior technicians of electrical plants with a quick reference of the major elements that they operate and maintain. This is not intended to be a theoretical document. It will help in the correct definition of equipment, in numerous practical installation situations. An electrical plant requires knowledge of different elements that include cables, transformers, switch gears, and VAR compensators. Real application examples are provided to comprehend the operation of the electrical systems.

During the course, an intensive investigation of the above-explained subjects will be conducted to the trainees through the presentation of simulated real systems. The trainee will have the opportunity to check the effect of changing various system parameters on the performance of the system.

Objectives

By the end of this course practitioners shall learn to:
Know more information of power system construction and operation.

- Know the new technology of electrical installation systems.
- Know the selection and operation of power transformer.
- Know the new technology of the feeder's selection.
- Understanding power factor correction methods.
- Understanding control and protection of power system.
- Understand the handover procedure of electrical installations
- Understand the testing and maintenance techniques of electrical installations.

Who Should Attend?

Senior and junior engineers concerned with the electrical power system installation operation and managements. In addition, the course will be valuable to senior technicians working in large industrial applications. The course targets also high qualified technician who are involved with the operation, control and protection of electrical installations.

Course Outline

Day One

- The Major Basic Elements of Electrical Installations
 - Generation, transmission and distribution
- Design aspects in order to chooses of various components of a Power Electrical Networks
 - System Layout
 - Line Construction
 - Routing
 - Cables Design aspects of Power Distribution Systems

Day Two:

- Transformers
 - Types of Transformers
 - Operation of Power transformer
- VAR Compensators
 - Selection of VAR Compensator
 - Operation of VAR compensator

Day Three

- Electrical Installation Protection
 - Fault current calculation
 - Microcomputer Controlled Relays
 - Circuit Breakers and Fuses
 - Selective coordination

Day Four

- Electrical Installations Handover
- Electrical Installations Maintenance

- Electrical preventive maintenance
- Reliability-Centered Maintenance
- Optimization of Preventive Maintenance
- Overview of Testing and Test Methods

Day Five

- Electrical Installations Maintenance and Testing
 - Resistance measurements
 - Polarity and phase-relation tests
 - No-load loss test
 - Dielectric tests

Short-circuit tests

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

تم تصميم هذه الدورة لتحسين المعارف لدى المشاركين المتعلقة بديناميات نظام القوي. انه يقدم قوة مكونات محطات الوقود موبداً التعامل مع الأنظمة والأفران والغلايات والتوربينات والمولدات الكهربائية. وسيتم التشديد على التثبيت بالموضوعات ذات الصلة بالبناء ، ونماذج من التوربينات البخارية والمولدات. وسيتم عرض مبادئ وأساليب السيطرة على الجهد. وسوف تناقش تردد التحميل والتحكم الديناميكي. و سيتم إجراء تحقيقات مكثفة من الموضوعات السالف شرحها للمتدربين. وعند الانتهاء من الدورة يتم الوفاء بها المهندس / فني محول الكهرباء. وستجرى الدورة من خلال المحاضرات، والعروض ، والأمثلة العملية.

الحضور

صغار وكبار المهندسين والفنيين المدربين الذين يعملون في توزيع وتوليد الطاقة، والسيطرة عليها.