



**GCC Electrical
Testing Laboratory**
المفتبر الفليبي لفمص المععات الكهريانية

Basic Protection Course for Industrials and Power Plants

This -3day course is intended for engineers who are working in industrial plants and power plants. This course is designed build a strong foundation of knowledge enabling participants to get ready with future tasks and challenges. This course is designed in a way to ensure easy comprehension. Extensive math is simplified to help convey the concepts and the details associated with such protection. Participants should bring their scientific calculator to solve problems.



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Education
Course Code: **EXX1**

Basic Protection Course for Industrials and Power Plants

APRIL
15 - 19
2018



GCC Electrical Testing Laboratory

المختبر الفليبي لفحص المعدات الكهربائية

Objectives

Upon completion of this course, the Participant will be able to:

Gain confidence in the work they perform and at the same time be ready for more complicated applications and troubleshooting.

Addressed to:

Electrical engineers who are working in the area of power system protection and would like to broaden their knowledge base and refine their skills.

Maximum recommended class size is 25 students (ideal class size is 15 students).

Duration:

3 Full Days

Location/Venue:

GCCIA HQ, Dammam

Course Fees:

PROGRAM

The Course program contains the following training outline:

DAY 1:

Introduction to Protection (Abnormal conditions, components of relays, etc); Fault Analysis (symmetrical and asymmetrical components, sequence impedance, etc.); Instrument Transformers (CTs and PTs and their functions).

DAY 2:

Overcurrent Protection (Time-Current curve, coordination and settings, different types of protections), Transformer Protection (differential protection, overexcitation protection, Through fault protection, Overcurrent protection, etc.), Station Bus Protection (Principles, High impedance, low impedance, differential protection, etc.)

DAY 3:

Motor Protection (General information, impact of losing motors in industrial plants, Different types of motor protection, etc.); Generator Protection (Differential protection, negative sequence, reverse power, ground fault, Field ground, etc.)



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