



شركة ميرك العربية السعودية
MEIRC Saudi Arabia

Circuit Breakers and Switchgears: Inspection, Maintenance & Troubleshooting

Duration 5 Days

Introduction

The duty of the switchgears is to switch on and off and to control, once or repeatedly several times, different electrical circuits during normal as well as abnormal operating conditions. Short circuit current level and the behavior of the circuit during transient condition are very essential to select proper specification of switchgears. Good practices and knowledge of circuit breakers and switchgears specification, operation, testing and maintenance are fatal for those engineers and technicians concerning with electrical power system and industrial application. This course designed to provide the participants with technical knowledge, practical experience and good skills in selecting the proper ratings, maintenance instruction and control procedures of HV & MV & LV switchgears.

Who Should Attend

The course is designed to Highly Qualified Technicians whom concerning with Circuit Breakers and Switchgears in Electrical Utilities, Electrical Distribution, Transmission and Industrial Application.

Course Objectives

By the end of this course the participants will gain the following;

- Know how to calculate the short circuit level
- The transient phenomena in power systems
- Understand the arc phenomena and circuit interruption
- Know the different types of circuit breakers and industrial switchgears
- Be able to select the proper specifications of CB and switchgears
- Know the maintenance procedures
- Be able to do all tests on circuit breakers
- Be able to detect circuit breakers troubleshooting
- Know the methods of system earthing and protection requirements
- Be able to control circuit breakers with associated relaying systems

Course Outlines:

Introduction to Circuit Breaker & Switchgears

- Basic Components of Electric Power System
- ARC Phenomena
- Types of Circuit Breakers
- Circuit Breaker Ratings LV, MV, HV
- Applications of Vacuum Circuit Breaker
- Air Circuit Breaker - Inspection and Maintenance Procedures
- Oil Circuit BreakerI - Inspection & Maintenance Procedures
- SF6 Gas Circuit Breakers
- SF6 Circuit Breakers (Puffer type SF6 breakers)
- Inspection & Maintenance of Switchgear
- AC and DC High Potential Tests
- Safety Rules for the Installation of Main Electrical Equipment