Power Factor Testing

TE162

Course Overview:

Most electrical equipment failures are the result of insulation deterioration. Power factor testing is the most effective and common way to detect insufficient electrical equipment insulation. This test enables technicians to detect equipment insulation problems without making an internal visual inspection. Technicians that can properly perform and evaluate the results of power factor tests can predict and prevent the failure of medium and high voltage transformers, circuit breakers, bushings, reclosers, switches, cables, lightning arrestors, liquid insulation, potheads, rotating machinery and voltage regulators.

Course Objective:

The objectives of the course of Power factor testing include the desire to acquaint electric power engineers and qualified technicians with power factor testing and its importance in power system control or voltage control. The reactive power control is also the main desire of this short course as well as the voltage control. This includes a functional description of the transmission system, control, maintenance, and protection as well as the routine maintenance requirements of the overhead lines and underground cable. The course will include another objective for power factor improvement which is the minimization of losses or loss reduction in power system.

Course Outline:

-Introduction
-Representation Of Individual Power System Components
-Power Factor Test
-Harmonics And Source Of Harmonics
-Power Factor Correction Calculation Example
-Design Of An Automatic Power Factor Improvement Unit
-Protective Relays And Protective Schemes
-Earthing And Bonding

Who Should Attend:

All engineers and technicians involved in the power sectors and power station operation and maintenance, and also in the factories, and enterprises, especially in distribution system.

Training Language:

EN / AR

Training Methodology:

-Presentation & Slides
-Audio Visual Aids
-Interactive Discussion
-Participatory Exercise
-Action Learning
-Class Activities
-Case Studies
-Workshops
-Simulation