

Course Overview:

Where open electricity markets have been introduced, the supply of electrical energy becomes competitive between the supply utilities. Although private distribution companies are obligated to run a profitable and successful business, they are also committed to maintain the quality of supply at a high level. Competition in an open electricity market creates new opportunities for even better quality of supply of electricity.

One very important aspect of improving quality of supply is the control of power factor. Low power factor means poor electrical efficiency. The lower the power factor, the higher the apparent power drawn from the distribution network. This means that the supply company must install larger generation capacity, larger size transmission lines and cables, transformers and other distribution system devices, which otherwise would not be necessary.

Course Objective:

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
- 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