

ELECTRICAL COURSES

TRANSMISSION LINE PROTECTION (E33A)

OBJECTIVE:

This course is designed to provide the participants with full information about the elements - distance, directional, overcurrent and directional earth fault protection.

WHO SHOULD ATTEND?

This course is recommended for electrical technicians and engineers who work in the protection field and have basic experience in this field.

COURSE CONTENT:

- Introduction to Transmission Line Protection.
- Distance Protection Principles.
- Reach and Zones of Operation.
- Distance Relays Characteristics and their Applications.
- Distance Protection Schemes and their Application.
- Power Swing Blocking.
- Direction Over Current Protection.
- Direction Earth Fault Protection.

PRACTICAL TASKS:

- Testing of distance relay.
- Calculating the setting of arbitrary transmission line distance and loading these settings to a digital distance relay.

Duration: 5 Days

Date:	Venue:	Cost:
Jan 10-14	Dammam	SR7,000
May 23- 27	Dammam	SR7,000
Sep 26-30	Abha	SR 8,000

TRANSFORMER PRINCIPLES AND APPLICATION (E12B)

OBJECTIVE:

This seminar is designed to provide information on the fundamentals of transformer construction, operation, maintenance and testing. Protective devices on power transformers will also be discussed. The major emphasis will be on liquid-filled power transformers as well as dry type transformers.

WHO SHOULD ATTEND?

This program is recommended for experienced electrical technicians, supervisors and engineers involved with the operation and maintenance of transformers.

COURSE CONTENT:

- Transformer Construction
- Transformer Principles and Classification
- Circuitry and Cooling
- Tap Changers
- Transformer Connections
- Special Transformers
- Reactors
- Transformer Maintenance

PRACTICAL TASKS:

- Megger test
- Resistance test
- Transformer Turns Ratio Test (TTR)
- Oil test
 - dielectric test, ppm test, acidity test
 - power factor test, color test
- Demonstration of oil purification system

Duration: 10 Days

Date:	Venue:	Cost:
Jan 3 –14	Dammam	SR12,000
Apr 4 – 15	Riyadh	SR13,000
Oct 3 –14	Dammam	SR12,000