

ELECTRICAL COURSES

INTRODUCTION TO PROCESS RELAYS (E37AE)

OBJECTIVE:

The course addresses the philosophy of advanced protective relays. The different advanced relays are introduced along with static protection.

WHO SHOULD ATTEND?

All electrical engineers, supervisors, and experienced technicians are invited to attend this short course. Operation, control, and planning engineers are strongly recommended to attend this course.

COURSE CONTENT:

- Introduction and General Philosophies.
- Technical Tools of the Relay Engineer: Phasors, Polarity, and Symmetrical Components.
- Protection Against Transients and Surges.
- Static Relays.
- Microprocessor Relaying.
- System Earthing, Safety Grounding and Protective Relaying.
- Generator Protection.
- Motor Protection.
- Transformer, Station Bus Bar, and Reactor Protection.
- Optimum Load Shedding and Frequency Relaying.
- The Main Advantages of Static Relays.
- The differences Between Electromechanical Relay and Static Relay.
- Monitoring, Protection, Control, and Measurement Functions.

Duration: 5 Days

Date:	Venue:	Cost:
Jan 26-30	Jubail	SR7,000
Mar 15-19	Dubai	SR8,000
Jun 28-Jul 2	Sharm El-Shaikh	SR8,000
Nov 1-5	Qatar	SR8,000

ISSUES & MEASURES OF POWER QUALITY (E76AE)

OBJECTIVE:

This seminar provides attendees with practical understanding and evaluates the concerns of power quality. It emphasizes preventing power quality problems before they occur and to describe a full range of solutions for each type of problem, covering the economic aspects of applying these solutions.

WHO SHOULD ATTEND?

This course is targeted towards power quality engineers and customer service representatives at electric utilities, as well as industrial facility engineers.

COURSE CONTENT:

- Power Quality-An Overview
- Power Quality Standards
- Power Quality and Computer Loads
- Harmonic Distortion of Fluorescent Lamps
- Transformers and Power Quality Issues
- Active Power Factor Correction in AC-DC Converters-I
- Active Power Factor Correction in AC-DC Converters-II
- PWM VSI Based Static VAr compensators (SVC) for Power Quality
- Active Power Filtering Techniques for Harmonic Elimination

Duration: 5 Days

Date:	Venue:	Cost:
Apr 5 – 9	Qatar	SR8,000
Apr 26 - 30	Dubai	SR8,000
Aug 23 – 27	Sharm El-Shaikh	SR8,000
Oct 25 - 29	Jubail	SR7,000