

ELECTRICAL COURSES

VARIABLE SPEED MOTOR DRIVES (E73AE)

OBJECTIVE:

The objective of this course is to understand the basic components of an electric drive and the associated solid-state converter circuits. To learn the various types of motors and the related applications in an industrial process.

WHO SHOULD ATTEND?

This course is designed for instrumentation, control, electrical/electronic engineers and maintenance personnel, plant technical staff, and supervisors who have some basic knowledge and learn the state of the art in variable speed motor drive technology.

COURSE CONTENT:

- Industrial Processes, Block Diagrams of Systems, Types of Motor Drives, Electric Motor Drives.
- Review of basic Electric Circuits, Phasor Representation of Sinusoidal Waveforms, 3 Phase Circuits, Magnetic Circuits, Magnetic Flux, Inductance, Permanent Magnets.
- Overview of Different Types of DC Motors, Equivalent Circuits, Operating Principles, Flux Weakening in Wound Field Motors.
- Power Electronic Converters, Rectifiers, Phase Controlled Rectifiers for DC Motor Control.
- Electromagnetic Compatibility (EMC)

Duration: 5 Days

Date:	Venue:	Cost:
Feb 14 – 18	Dammam	SR7,000
Jun 21 – 25	Oman	SR 9,000
Oct 10 – 14	Dammam	SR7,000

VOLTAGE CONTROL PROFILES (E60AE)

OBJECTIVE:

This seminar is designed to give an idea about transmission voltages levels in standard network and how to control voltage levels within standard values.

WHO SHOULD ATTEND?

This course is recommended for engineers and supervisors in power plants, control centers and substations.

COURSE CONTENT:

- International Standards Limits of Voltage Variations
- Voltage Drop Problems and Calculations
- Voltage Stability of Electric Network (p-v & q-v curve)
- Power Factor Correction Methods
- Methods and Recommendations for Controlling Voltage in Network
- Primary Level Controls
- AVR Circuits
- Secondary Levels Control (Regional Control Centers)
- Tertiary Levels Control (Dispatch Control Centers)
- Future and Permanent Plans for Improving Voltage

Duration: 5 Days

Date:	Venue:	Cost:
Mar 28– Apr 1	Dammam	SR7,000
Jul 4 – 8	Jubail	SR 8,000
Nov 14 – 18	Dammam	SR7,000