

# ELECTRICAL COURSES

## AC ELECTRICAL MOTORS AND DRIVES (E72A)

**OBJECTIVE:**

This seminar provides attendees with a basic understanding of an electric drive and the associated solid state converter circuits and knowledge of the AC motors plus discussion of the concepts of the AC drives and power drives system.

**WHO SHOULD ATTEND?**

This course is intended for instrumentation, control, electrical/electronic engineers and technicians. Maintenance personnel, plant technical staff, and supervisors.

**COURSE CONTENT:**

- Drive System
- General Description of a Dimensioning Procedure
- Basic Mechanical Laws
- Load Types
- Motor Load Ability
- Processes and their Requirements
- Harmonics with AC Drives
- Electromagnetic Compatibility (EMC) of PDS
- Generating Bearing Currents
- Preventing High Frequency Bearing Current Damage

**Duration: 5 Days**

| Date:      | Venue: | Cost:    |
|------------|--------|----------|
| Jan 3– 7   | Dammam | SR7,000  |
| Jun 6 – 10 | Dammam | SR7,000  |
| Nov 14 –18 | Abha   | SR 8,000 |

## AC/DC THEORY (E25A)

**OBJECTIVE:**

This seminar is designed to develop the understanding of electricity. It will also increase participants knowledge about AC and DC principles and its components.

**WHO SHOULD ATTEND?**

This course is recommended for technicians who work on operation and maintenance of various electrical equipments.

**COURSE CONTENT:**

- What is Electricity?
- Understanding Voltage, Current, and Resistance
- The Simple Electric Circuit
- Magnetism and Electromagnets
- Introduction to Alternating-Current
- Series and Parallel Circuits
- Direct-Current Compound Circuits

**Practical Tasks:**

- Familiarize the participants with the different elements of electric circuits.
- Perform some tests on the electrical simulator in the lab.

**Duration: 5 Days**

| Date:      | Venue: | Cost:    |
|------------|--------|----------|
| May 9 – 13 | Dammam | SR7,000  |
| Aug 8– 12  | Riyadh | SR 8,000 |
| Dec 5 – 9  | Dammam | SR 7,000 |