

# ELECTRICAL COURSES

## MODERN CONTROLLER APPLICATIONS IN POWER SYSTEM (E97A)

**OBJECTIVE:**

This course explains in detail basic theoretical and well known concepts behind modern control technique in power systems.

**WHO SHOULD ATTEND?**

This course is intended for junior & senior electrical engineers of modern controller applications in power systems.

**COURSE CONTENT:**

- Introduction
- Basic Theoretical Concepts
- Types of Industrial Controllers
- Proportional Controller
- Adaptive Control Techniques
- Model Reference Adaptive Controller
- Fuzzy-Logic Controller
- Practical Application for Turbo-Generator Unit “Case Study”
- Practical Application for Maximum Power Extraction from Wind Turbine Energy Conversion System “Case Study”
- Practical Application for Direct Current Drive System “Case Study”

**Duration: 5 Days**

Date:	Venue:	Cost:
<b>Jan 10 – 14</b>	<b>Dammam</b>	<b>SR7,000</b>
<b>May 30– Jun 3</b>	<b>Abha</b>	<b>SR 8,000</b>
<b>Oct 31 – Nov 4</b>	<b>Dammam</b>	<b>SR7,000</b>

## MOTORS (E6B)

**OBJECTIVE:**

This seminar provides attendees with a practical understanding of the theory and functions of AC motors, multi speed dual voltage motors, DC and universal motors, AC and DC motor starter, maintenance procedures for AC, DC and universal motors.

**WHO SHOULD ATTEND?**

This course is intended for experienced technicians, maintenance supervisors, and engineers with basic experience in this field.

**COURSE CONTENT:**

- Three Phase Motor Principles
- Induction Motors
- Synchronous Motors
- Multi-speed, Dual Voltage Motors, and AC Motor Starting Methods
- Three Phase Motor Maintenance
- Split-Phase Motor
- Capacitor Motors
- DC Motors
- DC Motor Controllers
- DC Motor Maintenance
- Universal Motors

**PRACTICAL TASKS:**

- Megger test
- Winding resistance test
- Current balance test
- Polarity test
- Voltage drop test for DC motor
- Bar to bar test

**Duration: 10 Days**

Date:	Venue:	Cost:
<b>Feb 21 – 25</b>	<b>Dammam</b>	<b>SR12,000</b>
<b>May 2 –6</b>	<b>Jubail</b>	<b>SR13,000</b>
<b>Sep 26 – 30</b>	<b>Dammam</b>	<b>SR12,000</b>
<b>Dec 26 – 30</b>	<b>Abha</b>	<b>SR13,000</b>