

ELECTRICAL COURSES

LIGHTNING PROTECTION SYSTEMS (E43A)

OBJECTIVE:

Delegates will gain an appreciation of the following:

- The need for lightning protection and the random nature of lightning.
- Lightning theory: - strokes/flash, stroke current, di/dt and stroke duration.
- Death and injury caused by lightning – step and touch potential
- Codes and standards: IEC 10234-1, IEC 61364-5, ENV 61024-1, BS 7430, NFPA 780
- Risk factors for buildings and personnel, equipment and structures.
- Preventive systems: Computer aided design methods and risk analysis
- Dissipation protection schemes: Characteristics of a good grounding system
- Lightning protection schemes: The design of a complete system
- Case Studies for the petro-chemical industry and commercial premises

WHO SHOULD ATTEND?

Managers, Engineers and Technicians responsible for the specification, purchase, installation, commissioning, inspection and maintenance of Lightning Protection systems for Industrial and Commercial buildings and who require to update / refresh their knowledge and skills.

COURSE CONTENT:

- Introduction
- Lightning Theory
- Death and Injury caused by Lightning
- Codes and Standards
- Risk Factors
- Preventive Systems
- Dissipation Protection Schemes
- Lightning Protection Schemes
- Case Studies

Duration: 5 Days

Date:	Venue:	Cost:
Mar 21-25	Dammam	SR7,000
Jul 11-15	Riyadh	S 8,000
Dec 5-9	Dammam	SR7,000

LOAD FREQUENCY CONTROL & LOAD SHEDDING (E61AE)

OBJECTIVE:

This seminar is designed to provide the participants with the complete idea about frequency in standard networking and how to produce control frequency levels within standard values.

WHO SHOULD ATTEND?

This course is recommended for beginner, engineers, and supervisors.

COURSE CONTENT:

- Introduction to Frequency Control System
- Primary Load Frequency Control
- Frequency Control of the Network (Load Shedding)
- Load Dispatching and Network Controller
- Automatic Generation Control (AGC)
- ACE Regulations Modes
- Unit Generation Limits
- Load Rejection of Generating Units and its Effect on Frequency and Voltage
- Generating Unit Synchronozation
- Loss of Synchronism Protection

Duration: 5 Days

Date:	Venue:	Cost:
Feb 7 – 11	Dammam	SR7,000
Jun 13 – 17	Dammam	SR7,000
Oct 24 – 28	Dammam	SR7,000