

# INSTRUMENTATION & ELECTRONIC COURSES

## ADVANCED DIGITAL ELECTRONICS (IE38A)

**OBJECTIVE:**

This course is designed to provide knowledge of advanced digital electronics.

**WHO SHOULD ATTEND?**

This course is intended for instrumentation and control engineers and electronic staff.

**COURSE CONTENT:**

- Binary Systems and Logic Gates
- Basics of Boolean Algebra
- Digital Intergrated Circuits
- Intergrated Circuit Logic Families
- Logic Functions and its Simplification
- The Map Method
- Combinational Logic Systems
- Adders and Subtractors
- Magnitude Comparators
- Decoder and Multiplexers
- Sequential Logic Systems
- Registers, Counters and Memory
- Memory Units
- Microprocessors and Microcomputers
- Control of Processor Unit
- Microcontrollers and Applications

**Duration: 5 Days**

Date:	Venue:	Cost:
Mar 8 – 12	Dammam	SR6,000
Jul 12 – 16	Dammam	SR6,000

## ADVANCED PROCESS CONTROL (IE27A)

**OBJECTIVE:**

To get a deep view of practical instrumentation aspects concerning calculation points, optimization, engineering information and problem solving which will be essential for engineers and technicians.

**WHO SHOULD ATTEND?**

This course is aimed at anyone involved with advanced process control and for beginner engineers, technicians and supervisors.

**COURSE CONTENT:**

- Closed Control Loop Types and Tuning
- Sensing Elements
- Control Valves Components Types
- Positioners and Other Control Valve Accessories
- Control Valves Sizing and Selection
- Control Valve Flow Characteristics
- Control Valve Maintenance
- Analytical Measurement and Control
- Gas Analysis
- Analyzer Measurement Applications

**Duration: 5 Days**

Date:	Venue:	Cost:
Jan 12 – 16	Dammam	SR6,000
May 17 – 21	Dammam	SR6,000