

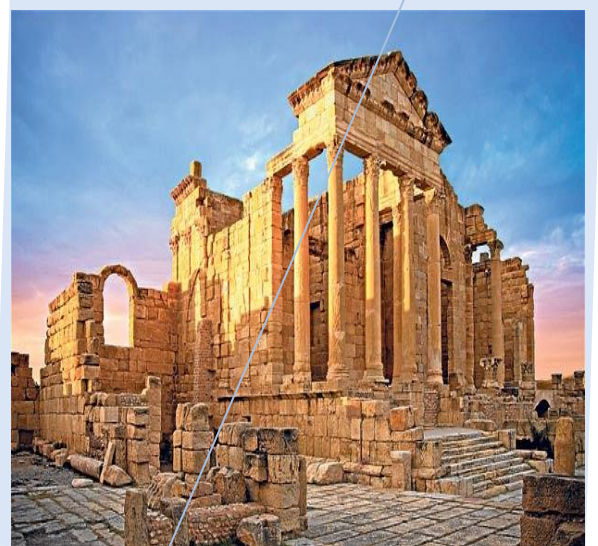
Training Course :

## Grounding and Noise Considerations for Control Equipment and Computers

Training Course For One Week In

Tunisia , Tunis , Le Corail Suites  
Hotel

Which Be Held As Under Details :



Abar Solutions Petroleum Consultancy Invite Your Employee To Participate With Us In Special Training Course As Under Details :

Course Name		Grounding and Noise Considerations for Control Equipment and Computers			
Code	Period	Language	Start	End	Location
ICT 007	5 Days	Bilingual (Arabic & English)	07/08/2017	11/08/2017	Tunisia , Tunis , Le Corail Suites Hotel
			04/09/2017	08/09/2017	
			09/10/2017	13/10/2017	
			13/11/2017	17/11/2017	
			18/12/2017	22/12/2017	
			15/01/2018	19/01/2018	
			12/02/2018	16/02/2018	
			12/03/2018	16/03/2018	
			23/04/2018	27/04/2018	
			14/05/2018	18/05/2018	
			11/06/2018	15/06/2018	
09/07/2018	13/07/2018				

**\*\* The Fees Includes : Lecturer , Training Material , Training Room With One Coffee Break Daily , Certificate Of Attendance In Last Day Training Course \*\***

Course Description

⇒ This course provides an understanding of grounding, from both an electrical systems relationship and from an instrument loops relationship. The purpose of grounding and electrical systems, grounding for safety, signal noise, signal wiring systems, and methods used to reduce noise.

Course Objectives

- ⇒ Learn the relationship between earth ground to electricity and electrical shock
- ⇒ Understand why some electrical systems are connected to earth ground

- ⇒ Use the National Electric Code (NEC) as standard for grounding instrument systems
- ⇒ Understand how people become part of an electrical circuit and how to avoid it
- ⇒ Understand what a ground loop is
- ⇒ Compare noise and interference and how they are transmitted
- ⇒ Identify instrument signal wiring and conductors
- ⇒ Use methods to reduce instrument noise
- ⇒ Understand the effects of harmonics on power systems, control systems, and computers

### Course Content & Outlines

#### ⇒ **Grounding**

- NEC Definitions,
- Earth Ground,
- Electrical Shock,
- Wye- and Delta-Connected Transformers,
- Grounding Electrical Systems,
- Methods of Grounding Electrical Systems,
- Isolated Grounding,
- Ground Loops in Instrumentation

#### ⇒ **Noise:**

- What is Noise?
- What is Interference?
- Transmission of Noise and Interference,
- Signal Wiring and Conductors,
- Shielding and Grounding in Instrumentation,
- Methods of Shielding and Grounding in Instrumentation

#### ⇒ **Powering Sensitive Electronic Equipment:**

- Power disturbance waveforms,
- Surge suppression devices and characteristics,
- Power conditioners,
- UPS,
- Power system harmonics and their effect