AbarSolutions
Petroleum Consultancy

Training Course :

Control and Safety in Gas and Oil Complex Industries

Training Course For One Week In

Turkey , Istanbul , Wyndham Grand Istanbul Levent

Which Be Held As Under Details :

Tel. : 00965 22610021 - 99600277 , Fax : 00965 22630021
Email : info@abarsolutions.com , W.Site : www.abarsolutions.com

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

Course Name		Control and Safety in Gas and Oil Complex Industries			
Code	Period	Language	Start	End	Location
ICT 005	5 Days	English	07/08/2017	11/08/2017	Turkey , Istanbul , Wyndham Grand Istanbul Levent
			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 programme takes an in-depth look at the field of safety instrumentation and emergency shutdown systems within the safety environment of the IEC 61508, IEC 61511 and ISA S84 standards.

⇒ The course is a complete stand-alone module that may be attended individually or as follow-on for any of the other 'Instrumentation' field course to provide an ongoing and continuous training environment.

⇒ Increasingly, industrial processes within the petrochemical, chemical and nuclear power industries have the potential for large-scale destruction. Without the luxury of learning

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from experience, organisations must anticipate and set in place preventative measures before accidents occur.

Course Objectives

⇒ This workshop is designed to provide instrumentation and control system engineers and technicians with the basic theoretical and practical tools that will enable them to evaluate, design, install and maintain safety instrumented systems (SILs).

⇒ **The Benefits**

- The programme will identify the driving forces, the warning signals, the uncertainties and the inevitabilities. These ideas will compose the plots and stimulate their interaction - YOU will identify all the challenges and elicit the response.
- This formula, adopting the value of an informal, strategic conversation between all parties will stimulate a series of detailed verbal reactions by key decision-makers that will examine YOUR reactions to that 'unexpected' crisis.

Course Content & Outlines

⇒ **Day One**

⇒ **Introduction to safety instrumentation Systems**

- Overview of safety systems engineering (SSE)
- Introduction to standards IEC 61508, IEC 61511 and ISA S84.01
- Equipment under control
- Introduction to hazards and risk
- Fatal accident rate (FAR)
- Safety life cycle and management tools
- Meaning and context of safety-Integrity Levels

⇒ **Day Two**

⇒ **Hazards & Risk reduction**

- Identifying Hazards and risk analysis tools (Hazop, FTA, etc)
- Process control vs. safety control
- Layered Protection models
- Risk reduction and risk ranking classification
- Safety Integrity Level (SIL)

- Outline of methodologies for hazard studies 1, 2 and 3
- Hazard study 1

⇒ **Day Three**

⇒ **Technology Choices and Reliability Analysis**

- Design process
- Failure modes
- What the standards say (IEC 61508/IEC 61511 and ISA 84.01)
- Development of safety PLCs (programme logic controllers)
- Analysis models and methods
- Reliability analysis parameters
- Calculation packages and reliability databases
- Hazard study 2

⇒ **Day Four**

⇒ **Safety in Instrumentation and field devices**

- Field devices for safety
- Sensor types
- Application of field devices
- Design requirements for field devices
- Technology issues
- Hazard study 3

⇒ **Day Five**

⇒ **Safety Systems Engineering**

- Project engineering
- ISA clause: SIS detailed design
- Information flow and documents
- Engineering application software
- Impact of safety systems failure
- Summary of course key points
- Close of course

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