

**Course Name: Process Plant and Troubleshooting Engineering Problem Solving**

**Reference Code: Gas 703**

**About the course:**

Troubleshooting skills are considered a core competency for 'Best-in-Class' modern industrial companies. In the competitive world that we are living in, it is essential that we optimize our efforts to secure the desired outcomes, and this course will equip the delegate with the basic tools and understanding to make that happen

**Course Objective:**

By the end of this training course, participants will be able to:

- 1- Appreciate the difference and consequences between pro-active and reactive problem solving
- 2- Develop a structured approach to troubleshooting and problem solving
- 3- Understand continuous improvement in the way you run your processes
- 4- Implement teamwork and leadership principles; support and cooperation practices
- 5- Understand work practices which "allow" success in troubleshooting and problem solving

**Who Should attend?.**

Employees who are responsible for leading and directing people to achieve and improve productivity levels

Those faced with the challenge of solving plant related problems

Production, Maintenance Engineering and Process Engineering personnel

Supervisors who are involved in the Operations / Maintenance function

**Kingdom of Saudi Arabia**

101 Business Tower, 8th Floor  
Al Jubail 35513, Bldg# 9278 ,KSA  
Tel.: +966 13 361 5552

**Kingdom of Saudi Arabia**

Khobar Gate Tower  
King Fahad Street , Khobar 31952  
Tel.: 00966133308334

Planners, Coordinators, Engineers and Technologists

### Course Methodology:

This training course is designed to be a hands-on, stimulating experience. The training course is highly interactive with many discussion and practice sessions.

- ☐ Relevant computer simulations and videos .
- ☐ Copies of all presentation material.
- ☐ Variety of Learning Methods.
- ☐ Pre-test and final test.
- ☐ Case Study
- ☐ Training Groups.
- ☐ Presentation.
- ☐ Lectures

### Course Outline:

#### Day One: Introductory Concepts

- Defining the nature of problems
- Utilising a Common Terminology
- Techniques introduction
- Tools introduction
- Levels of Performance Standard
- Critical Relationships

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**Day Two: Tools & Techniques – Practical Experience**

- Application of Decision Logic
- Practical Maturity Indexing
- Relationships Analysis
- Problem Analysis and Synthesis
- Practical Use of Tools and Techniques
- Project selection methods

**Day Three: People Issues**

- Working practices – empowerment or impairment?
- Group dynamics
- Individual motivators: External vs. Internal Motivation
- Developing Leadership Competence
- Managing change via the Transition Matrix

**Day Four: Operator, Maintainer, Designer Interface**

- Cross functional problem solving
- Development of Maintenance strategy
- Life Cycle Analysis, Design for Operation, Design for Maintenance
- Variability Analysis
- Strategies; Planning; and Protocols
- Effect of improved "Fit" between critical parameters in Operations

**Day Five:**

- Concepts, Tools and Techniques applied to problems
- Configuration Management
- Commercial Programs
- The Critical stages of Data Maturity
- Case Studies and Action Plans

**Time: 08:00 AM -03:00 PM Numbers of hours: 35 Hours**

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