



*Training Course:  
Advanced Problem-Solving Techniques for  
Technical Experts*

*15 - 19 December 2024*

*Cairo (Egypt)*

*Holiday Inn & Suites Cairo Maadi, an IHG Hotel*

## Training Course: Advanced Problem-Solving Techniques for Technical Experts

Training Course code: SC235551 From: 15 - 19 December 2024 Venue: Cairo (Egypt) - Holiday Inn & Suites Cairo Maadi, an IHG Hotel Training Course Fees: 3575 € Euro

### Introduction

The ability to solve complex problems efficiently is a critical skill for technical experts across industries. As organizations face increasing technological challenges and dynamic environments, the demand for professionals who can rapidly diagnose and resolve issues has never been higher. The "Advanced Problem-Solving Techniques for Technical Experts" program is designed to equip participants with advanced analytical and strategic tools to tackle complex technical challenges systematically and effectively.

This training course will focus on enhancing the cognitive and creative problem-solving skills needed to address both routine and unprecedented technical issues. Participants will engage in real-world case studies, applying sophisticated techniques such as root cause analysis, failure mode and effects analysis FMEA, and decision-making frameworks to resolve problems at both tactical and strategic levels. By the end of the program, attendees will be able to apply these techniques to boost operational efficiency, improve decision-making, and drive continuous improvement in their organizations.

### Objectives

- Understand and apply advanced problem-solving frameworks and methodologies.
- Diagnose and resolve technical issues using structured analytical tools.
- Develop and implement effective solutions for complex technical problems.
- Enhance decision-making through data-driven analysis and logical reasoning.
- Foster creativity in problem-solving and think outside the box.
- Improve collaboration and communication in solving technical issues.

### Target Audience

- Technical experts, engineers, and IT professionals.
- Senior technical staff involved in troubleshooting and problem-solving.
- Project managers and team leads overseeing technical problem resolution.
- Professionals in quality control, operations, and maintenance roles.

### Outlines

#### Day 1:

##### Introduction to Advanced Problem-Solving Techniques

- Overview of problem-solving in technical fields.
- Understanding complex vs. simple problems.
- Identifying root causes of technical issues.
- Structured problem-solving models PDCA, 5 Whys, etc..

#### Day 2:

##### Analytical Tools and Techniques for Root Cause Analysis

- Introduction to root cause analysis methodologies.
- Using tools such as Fishbone Diagrams and Fault Tree Analysis.
- Understanding and applying Failure Mode and Effects Analysis FMEA.
- Case study: Identifying root causes in technical failures.

#### Day 3:

##### Data-Driven Problem Solving

- Leveraging data in technical problem-solving.
- Using statistical tools to analyze problems Pareto analysis, Six Sigma.
- Decision-making techniques for technical experts.
- Problem-solving under uncertainty: risk management and mitigation.

#### Day 4:

##### Creative Problem-Solving and Innovation

- Encouraging innovation and creative thinking in technical solutions.
- Using lateral thinking and brainstorming techniques.
- Exploring alternative solutions to complex problems.
- Applying TRIZ Theory of Inventive Problem Solving to technical challenges.

Day 5:

#### Implementing Solutions and Continuous Improvement

- Developing actionable solutions and implementation plans.
- Communicating technical solutions effectively to stakeholders.
- Monitoring and evaluating the effectiveness of solutions.
- Driving continuous improvement through feedback loops and lessons learned.

## Registration form on the Training Course: Advanced Problem-Solving Techniques for Technical Experts

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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### Person Responsible for Training and Development

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### Payment Method

- Please find enclosed a cheque made payable to Global Horizon
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### Easy Ways To Register

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