MERCURY

Process Plant Troubleshooting & Engineering Problem Solving

3 – 7 October 2027
Sharm El-Sheikh (Egypt)



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Ref: 6035_1084467 **Date:** 3 – 7 October 2027 **Location:** Sharm El-Sheikh (Egypt) **Fees:** 5500 Euro

Introduction to Troubleshooting and Problem Solving

Understanding the significance of why troubleshooting is essential is pivotal for any industry aiming to maintain a competitive edge. The plant troubleshooting and engineering problem-solving course equips individuals with crucial troubleshooting skills, fostering an engineering approach to problem-solving, which is vital for continuous improvement in process efficiency.

This comprehensive troubleshooting training course is designed to empower participants with the essential skills for efficient plant troubleshooting and innovative engineering problem-solving.

By integrating a meticulous blend of theories and hands-on practices, this course lays a robust foundation in maintenance troubleshooting techniques and the engineering problem-solving process, ensuring that the participants can navigate through complex challenges within industrial settings.

Understanding Plant Troubleshooting and Engineering Problem-Solving Course

By integrating these themes and focal areas within the course outline, this troubleshooting training course not only sharpens an individual's engineering problem-solving skills but also cultivates the proficiency to diagnose and remedy plant-based obstacles with precision and agility.

Through this educational journey, participants in the plant troubleshooting and engineering problem-solving course will discover innovative engineering problem-solving techniques that are indispensable in the realm of mechanical and process engineering.

Targeted Groups

- This plant troubleshooting and engineering problem-solving course is for employees who are responsible for leading and enhancing productivity.
- This plant troubleshooting and engineering problem-solving course is for those faced with the challenge of resolving plant-related issues.
- Production, Maintenance Engineering, and Process Engineering Personnel.
- Operations and Maintenance Supervisors.
- Planners, Coordinators, Engineers, and Technologists.

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Course Objectives

At the end of this plant troubleshooting and engineering problem-solving course, the participants will be able to:

- Grasp the essence of becoming a top gun trouble-shooter.
- Develop a structured troubleshooting and problem-solving strategy.
- Embrace the application of a techniques manual beyond the bookshelf.
- Identify critical individuals for leading troubleshooting and problem-solving initiatives.
- Learn workplace practices that facilitate successful problem-solving.

Targeted Competencies

By the end of this plant troubleshooting and engineering problem-solving course, the target competencies will be able to:

- Mastery of problem-solving terminology.
- Various tools and techniques.
- Adopt a standard blueprint for issue resolution.
- Planning strategies and protocols.
- Conduct variability analysis.
- "Human Factor" analysis as a source of error.

Course Content

Unit 1: Introductory Concepts

- Define the nature of problems.
- Establish a common terminology.
- Context - Asset-based or business process-based.
- Learn about structured approaches to the 6 Big Losses and 7 Wastes.
- Technique introduction.
- Tools introduction.
- Set a Six-level performance standard.
- Critical relationships.

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Unit 2: Tools and Techniques

- Decision-making frameworks.
- Understand maturity indexing.
- Analyze complex relationships.
- Learn about the synergy between problem analysis and solutions.
- Understand the practical use of tools and techniques.
- Choose appropriate project selection methods.
- What are tools and techniques, and how do you select the right one?

Unit 3: People Issues

- How does workplace culture affect empowerment?
- The dynamics of group behavior.
- Motivate individuals for better performance.
- External vs. internal motivation.
- Develop and Training in troubleshooting and problem-solving competencies.
- Successful management of organizational change.
- Transition matrix.
- Fraction.

Unit 4: Operator, Maintainer, Designer Interface

- Enhance cross-functional teamwork.
- The role of maintenance strategy.
- Analyze functional contributions.
- Incorporate life cycle analysis in the design phase.
- Variability Analysis
- Learn about strategy, planning, and protocols.
- Effect of improved "Fit" between critical parameters in operations
- The imperative of continuous improvement.

Unit 5: Review of Concepts, Tools, and Techniques

- Create an actionable plan.
- Principles of configuration management.
- Evaluate commercial programs.
- Apply standard questions for concise problem definition.
- Understand the data maturity stages for informed decision-making.