

# Troubleshooting and Engineering Problem Solving to reduce downtime and waste

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## Energy Milestones Corporation Advancing Professionals to the next level

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# Troubleshooting and Engineering Problem Solving to reduce downtime and waste



## Overview

Excellent Troubleshooting skills are considered a core competency for Best-in-Class industrial companies. If your company's goals include minimising downtime, then this workshop is a must because it delivers rapid, safe Troubleshooting.

## Course Objectives

At the end of this course, the participants will be able to

- Appreciate the differences and consequences between proactive and reactive problem-solving.
- Develop a structured approach to troubleshooting and problem-solving.
- Understand continuous improvement in the way you run your processes.
- Understand the difference between having a technique manual on the bookshelf and putting it into practice.
- Implement teamwork and leadership principles, as well as support and cooperation practices.
- Understand work practices which "allow" success in troubleshooting and problem solving.

## Course Content

### 1. Introductory Concepts

- Defining the nature of problems
- Utilising a Common Terminology
- Techniques introduction
- Structured approaches

### 2. Tools & Techniques – Practical Experience

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



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## Course Content

### 3. People Issues

- Working practices – empowerment or impairment? Risk Control Techniques
- Group dynamics
- Individual motivators: External vs. Internal Motivation
- Developing Leadership Competence

### 4. 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

### 5. Open Forum

- Revisit Concepts, Tools and Techniques applied to problems
- Case Studies and Action Plans

## Targeted Audience

- Supervisors who are involved in the operations function and who are responsible for leading and directing people to achieve and improve productivity levels.
- Those faced with the challenge of actually applying the various techniques of Troubleshooting and Problem-Solving to reduce downtime, waste, and improve run efficiencies will benefit.
- It is of equal importance to personnel in Production, Maintenance Engineering, and Process Engineering.



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## Course Methodology

Facilitated by an experienced professional trainer, this training course will be conducted as a highly interactive workshop session. A variety of training methodologies and facilitation techniques will be employed before and during the course, as applicable. These methods are aimed at enhancing individual and group interaction while maximising learning. Some of these methods are:

- Online Pre-post Test
- Colourful Visual Aids
- Gamification
- Self-Assessment Instruments
- Simulations
- Case Studies
- Videos
- Group Exercises & Discussions
- Role plays
- Indoor & Outdoor games

