BLACKBIRD FOR TRAINING

TRIZ – Theory of Inventive Problem Solving

27 September – 1 October 2027
Washington (USA)



TRIZ – Theory of Inventive Problem Solving

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Introduction

TRIZ Theory of Inventive Problem Solving is a powerful methodology for systematic innovation and inventive problem-solving, developed from the analysis of over 2 million patents. This TRIZ training course introduces you to TRIZ tools and techniques that help solve both technical and non-technical problems creatively and efficiently. The program is designed to empower participants with the TRIZ methodology to overcome challenges and foster innovation across various fields, including engineering, business, and product design.

Course Objectives

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

- Understand the TRIZ method and its core principles.
- Use TRIZ tools to systematically solve real-world problems.
- Identify and eliminate contradictions in designs or business systems.
- Apply TRIZ principles in engineering, business, and innovation projects.
- Enhance idea quality and reduce time-to-innovation by leveraging TRIZ innovation principles.

Course Outlines

Day 1: Introduction to TRIZ & Systematic Innovation

- History and Philosophy of TRIZ.
- Understanding TRIZ concepts and innovation patterns.
- Overview of TRIZ methodology and its applications.
- Comparison: TRIZ vs Traditional Problem-Solving Methods.
- Understanding Systems and the Ideal Final Result IFR.

Day 2: Contradictions & the 40 Inventive Principles

- Defining Technical & Physical Contradictions.
- Tools for Eliminating Contradictions.
- The 40 Inventive Principles - Concepts & Real Examples.
- Contradiction Matrix - How to Use It.
- Workshop: Applying Inventive Principles to Real Problems.



Day 3: Functional Analysis & Root Cause Analysis SFA, RCA

- Functional Analysis - Identifying Useful & Harmful Functions.
- Trimming and Function Modeling.
- Root Cause Analysis Using TRIZ logic.
- Substance-Field Su-Field Modeling.
- Case Study: Using SFA to Solve Technical Challenges.

Day 4: Patterns of Evolution & Inventive Standards

- Technology Evolution Trends in TRIZ.
- 9 Windows Tool - Analyzing Time and Space Dimensions.
- Standard Solutions Inventive Standards.
- ARIZ - Algorithm for Inventive Problem Solving Intro.
- Group Exercise: Using Patterns to Forecast System Evolution.

Day 5: Applying TRIZ in Practice

- Practical Application of TRIZ in Product Design, Manufacturing, and Services.
- Integrating TRIZ with Six Sigma, Lean, and Agile methodologies.
- Solving Business & Management Problems with TRIZ principles.
- Final Project: Solving a Real or Simulated Problem with TRIZ tools.
- Review, Feedback, and Certification.

Why Attend This Course: Wins & Losses!

- Learn TRIZ as an innovative methodology to solve problems systematically in both technical and non-technical domains.
- Gain the ability to eliminate contradictions in systems or designs, enabling more creative solutions and innovations.
- Master the TRIZ theory of inventive problem solving to analyze root causes and address challenges at their core.
- Apply TRIZ innovation principles to engineering, business, and product development projects, accelerating innovation and reducing time to market.
- Develop skills in forecasting system evolution using TRIZ patterns, enhancing strategic planning and problem-solving.

Conclusion

This TRIZ training course provides a comprehensive understanding of the TRIZ methodology, enabling you to approach problems with a structured and inventive mindset. By leveraging TRIZ tools in product design, manufacturing, and business management, you will be able to address complex challenges efficiently and innovate effectively.

Enroll now to master the TRIZ theory of inventive problem solving and lead your projects to achieve breakthrough solutions.

