€TRAINING

# Advanced Value Engineering



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## Introduction:

The Advanced Value Engineering program is a comprehensive initiative focused on optimizing the value of projects through advanced methodologies and techniques. Through sophisticated analysis and innovative solutions, this program seeks to maximize value across all aspects of project development and execution. It significantly enhances creative thinking, problem-solving, objective assessment, and informed decision-making skills.

## Program Objectives:

### At the end of this program, the participants will be able to:

- Understand the fundamental concepts of value engineering and how it supports effective project management throughout the project development process.
- Gather and organize information and cost relevant to key elements of the project.
- Learn how to capture and incorporate stakeholders input in the development of the project charter and plan.
- Critically assess and evaluate the relationships among key attributes such as cost, value, and function.
- Report effectively to top management and project stakeholders.
- Objectively present a convincing case in support of certain project alternatives.

## Targeted Audience:

- Project Managers.
- Operational Excellence Personnel.
- Operations Managers.
- Asset Managers.
- Quality Assurance Personnel.

## Program Outlines:

### Unit 1:

### Framework for Applying Value Engineering in Projects:

- What is Value?
- What is Value Engineering? Why is it important?
- Defining Value Engineering concepts and principles
- How and when is Value Engineering applied?
- Project stakeholders analysis and management.
- Understanding teamwork and cross-functional Project Teams and team player styles.

## Unit 2:

## The Function Analysis Phase - Expressing Project Functional Needs and Constraints:

- Overview of Different Value Engineering Phases / Job Plans.
- The Information Phase - steps and procedures.
- The need for Function Analysis in projects.
- Developing FAST Diagrams to identify critical project components and perform project value analysis.
- Defining project constraints - relationships and trade-offs.
- Aspects of Cost Estimating.

## Unit 3:

## The Creative Phase - Inspiring Creativity in Your Project Team:

- Risk Management.
- Relationships between Value, Cost, and Worth.
- Facilitation skills.
- Creativity and Creative thinking within the project environment.
- Creativity techniques as applied to optimize project value.
- Blocks to creativity within the project team.

## Unit 4:

## The Evaluation Phase - Making Informed Project Decisions:

- Reaching consensus and leveraging the power of project team collaboration.

- Idea selection.
- Evaluation methods and value criteria.
- Development phase.
- Techniques in problem-solving.
- Life-cycle costing analysis.

## Unit 5:

## The Planning and Reporting Phases - Getting Results Through Effective Communication:

- Effective Decision-making in a project environment.
- Develop action plans and assign project roles and responsibilities.
- Reporting VE findings to Senior Management and project stakeholders.
- Integrating VE into the project process and Continuous Improvement and application at project initiation.