



Conference:
*Project Cost Estimating, Budgeting and Value
Engineering Skills*

*18 - 29 April 2027
Cairo (Egypt)*

Conference: Project Cost Estimating, Budgeting and Value Engineering Skills

Conference code: CO8240 From: 18 - 29 April 2027 Venue: Cairo (Egypt) - Conference Fees: 6300 € Euro

Introduction

Accurate cost estimating is essential for successful project planning, budgeting, and decision-making. Early project estimates form the foundation for feasibility studies, cash flow forecasting, and project approval, while inaccurate estimates can lead to significant cost overruns and project risks.

This conference provides participants with practical skills in project cost estimating, budgeting, procurement-related estimating, and value engineering techniques. It focuses on improving estimate accuracy, controlling project costs, evaluating procurement strategies, and optimizing whole-life project value without compromising quality or functionality. Participants will also learn how value engineering supports better decision-making throughout the project lifecycle to maximize project performance and return on investment.

Objectives

The primary objectives of the program are to help delegates to:

- Gain knowledge of techniques used in project estimating, from the conceptual stage to the final detailed estimate
- Understand the different types of estimates used to accurately and progressively estimate project costs
- Understand the different types of contracts based on the distribution of risk between contracting parties
- Effectively apply incentive arrangements to get the best results from the contract
- Understand the fundamental concepts of Value Engineering and Analysis
- Understand how value engineering supports effective project management by providing a continuous thread of good practice throughout the project development process
- Appreciate the level and nature of the information needed to develop a project scope
- 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
- Report effectively to top management and project stakeholders in the context of proposing alternatives that improve the overall project value
- Demonstrate proficiency in applying life-cycle costing principles
- Objectively present a convincing case in support of certain project alternatives.

Target Audience

This program is designed for:

- Project Managers and Project Engineers
- Cost Estimators and Cost Control Engineers
- Contracts and Procurement Professionals
- Planning and Scheduling Engineers
- Construction Managers and Site Engineers
- Quantity Surveyors and Commercial Managers
- Value Engineering Specialists

- Operations and Maintenance Professionals
- Finance Professionals involved in project budgeting and investment analysis
- Consultants and Technical Professionals involved in project planning and execution
- Professionals seeking to enhance their skills in project cost estimating, contract strategies, risk analysis, and value engineering

Outlines

Day 1: Fundamentals of Project Cost Estimating

- The estimating life cycle
- Phases of the design process
- Programming phase
- Schematic design
- Design development
- Construction documents
- Estimating accuracy by phase
- Conceptual cost estimates
- Rough Order of Magnitude ROM estimates
- Assemblies cost estimates
- Cost indices and estimate classifications

Day 2: Cost Estimating Techniques & Contract Basics

- Semi-detailed and definitive estimates
- Lump-sum contracts
- Unit-price contracts
- Cost-plus contracts and GMP contracts
- Time-and-materials contracts
- Bid and negotiated procurement methods
- Quantity take-off techniques
- Types of construction contracts
- Procurement methods and pre-construction services
- Risk analysis and contingencies

Day 3: Broad Scope Estimating & Cost Adjustments

- Broad scope estimating techniques
- PERT project cost analysis
- Normal distribution and Z-value applications
- Probability of project completion within budget
- Adjustments based on previous projects
- Future and present value review
- Equivalent compound interest
- Economic price adjustment
- Adjustments for location, time, and size
- Learning curve applications in cost and duration estimating

Day 4: Budget Estimating & Bid Preparation

- Budget estimating by design phase

- Programming and schematic design budgets
- Estimating pre-construction services
- Request for Proposal RFP preparation
- Budget control log
- Work Breakdown Structure WBS
- Estimating team organization
- Scheduling the estimating work
- Estimating forms and error prevention techniques

Day 5: Advanced Bid Estimating & Contract Compensation

- Pricing self-performed work
- Labour, materials, and subcontractor pricing
- General conditions estimating
- Unit price estimates
- Direct and indirect cost estimation
- Mark-up determination
- Risk analysis and bid finalization
- Negotiated contract estimating
- Guaranteed Maximum Price GMP estimates
- Contract types and compensation arrangements
- Fixed-price, incentive, and cost reimbursement contracts
- Parametric and target cost estimating
- Analysis of estimating accuracy

Day 6: Introduction to Value Engineering

- What is Value Engineering VE?
- Value Engineering concepts and principles
- Purpose and importance of VE and Value Analysis
- Strengths and weaknesses of VE
- When and how VE is applied
- Project definition and initiation
- Project scope and charter development
- Life-cycle costing techniques
- Stakeholder analysis and management
- Relationships between value, cost, and worth

Day 7: Function Analysis & FAST Techniques

- Initiating the Value Engineering process
- Overview of VE phases
- The Information Phase
- Developing the VE Job Plan
- Function Analysis concepts
- Function-Cost-Worth Analysis
- Project functional needs and constraints
- Developing FAST Diagrams
- Technical FAST Model applications
- Cross-functional project team approach
- Case studies and practical applications

Day 8: Creativity & Problem Solving in Value Engineering

- Creativity in the project environment
- Individual vs. group thinking
- Creativity techniques for project optimization
- Barriers to creativity
- Brainstorming project solutions
- Consensus building techniques
- Project risk perception and identification
- Delphi technique for prioritization
- Force-field analysis in project problem solving
- Outputs of the Creative Phase

Day 9: Evaluation & Decision-Making Techniques

- Project ideas screening
- Quantitative and subjective evaluation methods
- Criteria weighting techniques
- Revisiting life-cycle costing analysis
- Inflation in project economic analysis
- Risk and scenario analysis
- Simulation modeling for project cost scenarios
- Incremental benefit-cost analysis
- Effective project decision-making
- Outputs of the Evaluation Phase

Day 10: Planning, Reporting & Implementation

- Developing and assessing VE proposals
- Action planning and assigning responsibilities
- Reporting VE findings to management
- Effective presentation and interpersonal skills
- Strategies for project plan execution
- Integrating VE into early project phases
- Continuous improvement techniques
- Project workshops and case studies
- Final review and wrap-up session

Registration form on the Conference: Project Cost Estimating, Budgeting and Value Engineering Skills

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