

Construction Cost & Value Management Training program

Introduction:

Construction project cost and economic value management are two critical competencies of construction project managers that are instrumental in achieving customer satisfaction. Accurate cost estimates form the essential foundation upon which all aspects of construction project pricing, budgeting and cost control are built. This course covers the various categories of construction cost estimating techniques and the cost management processes required to ensure that overall cost targets will be achieved. Value management complements cost management through value analysis techniques that allow cost reductions to be made without sacrificing project scope. The candidates will practice value analysis techniques and applications using practical construction examples.

This course will produce candidates who have the ability, training, demonstrating and attitude to manage all types of construction projects of various sizes and types as the project manager for the developer or contractor, a site manager or supervisor of construction works, an Estimator or to perform the role of a resident consultant representative. The candidates will have varying degrees of experience and some will need more practical experience and exposure to enhance their abilities and competence to perform at the higher levels.

Who Should Attend?

Construction Engineers, Senior Construction Engineers, Construction Supervisors, Construction General Supervisors, Construction Project Managers, Engineering Technologists, Supervision Engineer, Inspection Engineers, Civil Inspectors, Foremen, Design Structural Engineers, Planners, Structural Engineers, Material Specialists, Quality Control and Quality Assurance Experts, Architects, Supervision Engineers, Team Leaders, Site Officers and Managers, Mechanical Engineers, Technical Professionals, Field Production Supervisor, Operation Engineers, Clients Representatives.

Course Objectives:

By the end of this course delegates will be able to:

- Prepare and apply construction cost concepts, cost estimating & control techniques to manage project cash flow requirements
- Prepare a project cost management plan to set project finance parameters and to control project implementation
- Select and use different types of construction contracts and bid preparation to suit the implementation framework
- Perform basic value engineering, analysis and management techniques to improve construction efficiency increasing the output/input ratio
- Simulate the investigation, preparation and completion of work assignments under strict time and resources constraints
- Utilize project & business financial analysis techniques to set guidelines for project financial performance

Course Outline:

Introduction and Learning Concepts

- Learning Concepts
- Approaches & Rules of Order
- Project Cost Management
- Concepts of Value Engineering
- Analysis & Management defined

Methods of Construction Cost Estimating

- Cost Concepts
- Analogous
- Parametric
- Top Down
- Order of Magnitude
- Bottom Up
- Data Base
- Construction Costing Software
- Work Study & Measurement
- Vendor Bid Analysis & Control
- Contingencies
- Reserves for Risk & Cost of Quality
- Cost Management System & Change Order

Standard Methods of Construction Cost Estimating

- Standard Method of Measurement from Drawings
- Standard Method of Recording & Compilation of Estimate
- Bills of Quantities & Construction Budget
- Different Types of Cost Measurement
- Construction Contracts

Construction Cost Control

- Project Cost Plan & Cost Baseline, Design & Specifications
- Work Performance Information & Reports
- Earned Value Analysis
- Variance, Control & Corrective Action
- Re-baseline projects

Capital Budgeting Techniques

- Time Value of Money
- Discounted cash flow
- Net Present Value
- Payback Method
- IRR
- Project Buyout
- Takeover analysis, negotiation & continuation
- Sustainability & Profitability

The Construction Budget & Cash flow

- Construction Documents
- Work Breakdown Structure
- Bills of Quantities & Construction cost control
- The Project & Construction budget
- Cash flow charting & analysis

Construction Bid Preparation & Submission

- RFP & ITB & Bid Documents
- Pre & Post Qualification
- Bonds & Insurances
- Site Mgt & Integration -Main & Sub-contractors/suppliers
- The Bid (Tender)
- Review & Submission

Value Engineering & Analysis

- The VE process
- Application: The FAST process
- Fast worksheet

Construction Value Management

- Integrating VE processes: The QFD process
- Value Management Systems
- QFD Worksheet

Project Cost Worksheets

- Estimating
- EMV
- Capital Budgeting
- Value Management

Project Performance Appraisal

- Trend Analysis
- Variance Analysis
- Advanced Earned Value Analysis
- Project Report

Business Accounting & Financial Analysis

- The Balance Sheet
- Profitability : Income & Expenses Statement
- Assets & Liabilities – Current & Fixed
- Project & Company
- Financial Statements Analysis