

Project Cost Estimation Techniques: Mastering Accuracy

2027 26 - 22
Kuala Lumpur (Malaysia)

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The Program Flow

Day 1: Fundamentals of Project Cost Estimation

- Understand project cost management and its role in construction success.
- Explore different types of cost estimates and when to use them.
- Review the cost estimation process and best practices.
- Analyze how project scope, specifications, drawings, quantities, and assumptions affect estimates.
- Build the foundation for preparing accurate and reliable construction cost estimates.

Day 2: Advanced Estimation Techniques

- Apply parametric estimating using historical data and cost drivers.
- Use bottom-up estimating for detailed work packages and construction activities.
- Apply three-point estimating to account for uncertainty.
- Use analogous estimating and benchmarking for early-stage estimates.
- Compare estimation methods and select the right approach based on project stage and available information.

Day 3: Budgeting and Cost Control

- Develop project budgets based on approved estimates and scope requirements.
- Create cost baselines for monitoring and control.
- Apply Earned Value Management principles to track cost and schedule performance.
- Analyze cost variances and performance trends.
- Manage project changes and assess their financial impact.

Day 4: Value Engineering and Risk Management

- Understand value engineering principles in construction projects.
- Apply cost-benefit analysis to compare design and delivery alternatives.
- Identify financial, technical, market, and execution-related cost risks.
- Quantify project risks and determine suitable contingencies.
- Develop risk mitigation and contingency planning strategies.

Day 5: Modern Tools and Industry Best Practices

- Explore modern cost estimation software and digital cost management tools.
- Understand the role of Building Information Modeling in cost estimation and control.
- Use industry benchmarks and standards to improve estimate reliability.
- Review case studies and practical construction cost scenarios.
- Apply lessons learned to improve estimating accuracy and cost management practices.

A graphic of a chessboard with several chess pieces (a king, a queen, a rook, and a knight) in gold and silver, set against a background of concentric circles.

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Individual Impact

- Build confidence in preparing accurate construction cost estimates.
- Strengthen skills in budgeting, cost control, and financial risk assessment.
- Improve ability to apply advanced estimation techniques.
- Gain practical understanding of value engineering and cost optimization.
- Develop proficiency in using modern tools and software for cost estimation.

Work Impact

- Improve project budget accuracy and financial planning.
- Reduce cost overruns through better estimation, monitoring, and control.
- Strengthen decision-making around project scope, alternatives, and contingencies.
- Improve project value through strategic cost management and value engineering.
- Support more reliable reporting, forecasting, and financial control in construction projects.

Training Methodology

This program combines construction cost management concepts with practical application through:

- Cost estimation exercises and calculation activities.
- Parametric, bottom-up, three-point, and benchmarking workshops.
- Budgeting, cost baseline, and EVM practice sessions.
- Change impact and cost variance analysis scenarios.
- Value engineering and risk assessment case studies.
- Software, BIM, benchmarks, and industry best-practice discussions.

Beyond the Course

Upon completion, participants will be able to:

- Create accurate and reliable cost estimates for construction projects.
- Build project budgets and cost baselines.
- Apply EVM and cost control techniques to monitor project performance.
- Assess cost impacts of changes, risks, and uncertainty.
- Use value engineering to optimize project cost and quality.
- Apply modern cost estimation tools and best practices with greater confidence.

A graphic of a chessboard with several pawns and a king piece. The text 'UK Training' is above the word 'PARTNER' in a large, bold, sans-serif font.

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