Cost Engineering and Risk Management

Advance your knowledge in Cost Engineering and Risk Management to maximize your business profitability!

20th April 2015 - 22nd April 2015 | Kuala Lumpur, Malaysia

Petrosync Distinguished Instructor

Richard Slingerland
Owner and Principal Cost Engineer
Pareto Cost Consultancy BV

- Over 15 years of experience in consulting oil & gas industry.
- Certified Cost Engineer
- Former Board Member of Dutch Association of Cost Engineers.

Course Objectives

- Develop a sound understanding of the principles, methodologies and industry best practices in Cost Engineering and Risk Management.
- Understand the business context, the project life cycle and the purpose of Cost Engineering in Oil & Gas projects.
- Learn to prepare cost estimates, from high level factor estimating to very detailed equipment and bulk material cost.
- Understand the impact of project location, market environment and project execution strategy on project cost.
- Develop the skills and knowledge to review and reconcile cost estimates.
- Understand the principles and methodologies of risk analysis and execute risk mitigation.
- Work on real Oil & Gas project case studies to practice all aspects of this master class.

Specially Designed for

The course is designed for Cost Engineers, Cost Estimators, Cost Controllers, Project Managers, Project Engineers, Project Planners, Finance Managers & Executives.

HYBRID TRAINING SOLUTIONS

FOCUS TRAINING • REDUCE COST • ENHANCED RESULTS

Over the years, there has been a growing demand for hybrid training programs. It is an excellent option to maximize your training dollar for your specific training needs. We make it possible to run a training program that is customized totally to your training needs at a fraction of an in-house budget!

If you like to know more about this excellent program, please contact us on +65 6415 4500 or email general@petrosync.com
Cost Engineering and Risk Management (Day 1 - 3) program will cover the latest techniques and practical methodologies of project cost engineering and risk management to successfully manage project cost and risk, in order to maximize business ROI in the long run. You will gain the combination of unmatched risk analysis skills, cost engineering and thorough knowledge of your project parameters and uncertainties.

**Petrosync Distinguished Instructor**

**Richard Slingerland, CCE**  
Owner and Principal Cost Engineer  
Pareto Cost Consultancy BV

Richard Slingerland is a Certified Cost Engineer and a former Board Member of the Dutch Association of Cost Engineers. He is the owner of Pareto Cost Consultancy, a company specialized in cost estimating, project economics, estimate & schedule assurance reviews, project control, benchmarking and value engineering. Richard has more than 15 years of industrial experience in consulting oil & gas projects, both upstream and downstream. For almost ten years, Richard worked in various Shell locations including the Hague, Netherlands, Malaysia and Central America.

**LIST OF ACHIEVEMENTS**

- Cost Engineering services to Shell and third party for large projects up to a CAPEX of more than USD 10 billion for upstream and downstream projects in the Asia Pacific Region.
- Exploration and production cost engineering focal point for the Asia Pacific Region.
- Lecturer of Shell’s Project Academy, Cost Engineering courses and several Shell exploration and production courses.

**CLIENT LIST INCLUDES:**

- Shell
- Chevron
- Petrobras
- SBM Offshore
- APM Terminals
- Abu Dhabi National Energy Company
- OOCEP
- Carigali Hess
- JEML

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**Cost Engineering & Project Management Training Courses (January - December 2015)**

<table>
<thead>
<tr>
<th>DATE</th>
<th>COURSE TITLE</th>
<th>INSTRUCTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>20th - 24th Apr</td>
<td>Cost Engineering, Risk Management &amp; Earned Value Management</td>
<td>Richard Slingerland</td>
</tr>
<tr>
<td>27th - 29th Jul</td>
<td>Analysis and Modelling for Cost, Economics &amp; Risk</td>
<td>Richard Slingerland</td>
</tr>
<tr>
<td>07th - 11th Sep</td>
<td>Successful Project Cost Estimation Control</td>
<td>Larry Dysert</td>
</tr>
<tr>
<td>28th - 01st Sep</td>
<td>Cost Engineering Intensive</td>
<td>Ko Des Bouvrie</td>
</tr>
<tr>
<td>30th - 02nd Dec</td>
<td>Project &amp; Schedule Risk Management</td>
<td>Paul D. Giammalvo</td>
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</tbody>
</table>

For a copy of Petrosync’s Training Calendar for 2015, please visit:  
COST ENGINEERING and RISK MANAGEMENT
20th - 22nd April 2015 at Kuala Lumpur, Malaysia

Course Agenda - Delegates to bring their own laptop with MS Excel installed for Exercises and Case Studies

Day One - 20th April 2015

Estimating Definitions
- Project Life Cycle
- Purpose of Estimates
- Accuracy and Probability
- Allowances
- Contingency and Escalation
- Money of the Day / Real Term
- Estimating Plan
- Basis of Estimate

Factor Estimating
- Definitions, advantages and disadvantages
- Exponent method
- Cost per capacity method
- Lang, Hand and Chilton method
- Peter-Timmerhaus method
- Specific factor method

Case study: Factor estimating

Quantity Ratio Estimating
- Definitions, advantages and disadvantages
- Quantity ratios for piping
- Quantity ratios for electrical & instrumentation
- Quantity ratios for structural steel
- Quantity ratios for civil, painting & insulation

Case study: Quantity ratio estimating

Parametric and Range Estimating
- Nomenclature
- Pareto's Law
- Critical elements and key questions
- Range estimating input and simulation

Case study: Earned value analysis

Detailed Estimating
- Discipline estimating
- Unit rates & sources of pricing
- Estimating of equipment
- Piping estimate
- Insulation estimate
- Civil estimate

Case study: Detailed estimating

Day Two - 21st April 2015

Location Factors and Market Factors
- How to set up a location factor
- Location cost surveys
- Steel and commodity prices
- Benchmarks
- Indices
- Cost modeling

Case study: Analyzing differences between locations and markets

Budgeting
- Setting up a project budget
- Project baseline
- Contingency allocation
- Work breakdown structure
- Cost breakdown structure
- Code of accounts
- Interaction with Contracting & Procurement

Case study: From estimate to budget

Project Control
- Why Cost Control
- Potential influences on costs
- Pre-requisites for effective cost control
- Cost control plan and procedures
- Schedule control
- Progress measurement
- Earned value analysis / management
- Project controls best practices
- Integrated cost & schedule control
- Project control tools

Case study: Earned value analysis

Advanced Project Control
- Management of change
- Re-baseline
- Monthly reports
- Forecasting
- Cashflow analysis
- Controlling cost of quality and safety
- Project close-out & lessons learned
- How to manage project control
- Total Cost Management

Case study: Advanced project control

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Case study: Advanced project control
Project Assurance
- Estimate verification and assurance
- Estimate assurance reviews
- Client vs contractor estimate reconciliation

Case Study: Project assurance

Risk Analysis Introduction and Definitions
- Definitions and terminology
- Risk register
- Cost risk analysis
- Schedule risk analysis
- Deterministic methodology
- Probabilistic methodology
- Risk analysis tools
- Risk management

Case study: Setting up a risk analysis model

Risk Management
- Risk mitigation
- Project risk management

Case study: Risk management

Schedule Risk Analysis
- Uncertainties in duration
- PERT
- Critical path
- Critical chain

Case study: Schedule risk analysis

Integrated Cost and Schedule Risk Analysis
- Correlation between cost and schedule risks
- Essentials of cost and schedule risk analysis
- Methodology

Case study: Integrated cost / schedule risk analysis

PROGRAM SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:00 - 09:00</td>
<td>Registration (Day 1)</td>
</tr>
<tr>
<td>09:00 - 11:00</td>
<td>Session I</td>
</tr>
<tr>
<td>11:00 - 11:15</td>
<td>Refreshment &amp; Networking Session I</td>
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<tr>
<td>11:15 - 13:00</td>
<td>Session II</td>
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<tr>
<td>13:00 - 14:00</td>
<td>Lunch</td>
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<tr>
<td>14:00 - 15:30</td>
<td>Session III</td>
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<tr>
<td>15:30 - 15:45</td>
<td>Refreshment &amp; Networking Session II</td>
</tr>
<tr>
<td>15:45 - 17:00</td>
<td>Session IV</td>
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<td></td>
<td>End of Day</td>
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Course Details

Title : Cost Engineering and Risk Management
Date : 20th - 22nd April 2015
Location : Kuala Lumpur, Malaysia

INVESTMENT PACKAGES

<table>
<thead>
<tr>
<th>Investment Package</th>
<th>Deadline</th>
<th>Course Fee</th>
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<tbody>
<tr>
<td>Standard Price</td>
<td>17th April 2015</td>
<td>SGD $3,995</td>
</tr>
<tr>
<td>Early Bird Offer</td>
<td>20th March 2015</td>
<td>SGD $3,795</td>
</tr>
<tr>
<td>Group Discount (3 or more Delegates)</td>
<td>17th April 2015</td>
<td>10% discount for groups of 3 registering from the same organization at the same time</td>
</tr>
</tbody>
</table>

- To enjoy the promotion & discount offer, payment must be made before deadline
- For 7 or more delegates, please inquire for more attractive package
- Prices include lunches, refreshments and materials. Promotion & discount cannot be combined with other promotional offers.
- Important: Please note that registration without payment will incur a SGD 200 administration fee.

DELEGATES DETAILS

1st Delegate Name ________________  Mr  Mrs  Ms  Dr  Others  
Direct Line Number: ___________________________  Email:  
Job Title:  
Head of Department:  

2nd Delegate Name ________________  Mr  Mrs  Ms  Dr  Others  
Direct Line Number: ___________________________  Email:  
Job Title:  
Head of Department:  

3rd Delegate Name ________________  Mr  Mrs  Ms  Dr  Others  
Direct Line Number: ___________________________  Email:  
Job Title:  
Head of Department:  

INVOICE DETAILS

Attention Invoice to:  
Direct Line Number:  
Fax:  
Company:  
Industry:  
Address:  
Country:  
Email:  
Postal Code:  

Please note:
- If you have already registered by Phone  
- If you have not received an acknowledgement before the training, please call us to confirm your booking.

PAYMENT METHODS

- By Credit Card :  
<table>
<thead>
<tr>
<th>Card Number:</th>
<th>Security Code:</th>
<th>Expiry Date:</th>
</tr>
</thead>
</table>
- By Direct Transfer : Please quote invoice number(s) on remittance advice

PAYMENT TERMS : Payment is due in full at the time of registration. Full payment is mandatory for event attendance.

CONFIRMATION

I agree to PetroSync's terms & conditions, payment terms and cancellation policy.

Authorized Signature :  

TERMS AND CONDITIONS

DISCLAIMER

PetroSync reserves the right to change or cancel any part of its published programme due to unforeseen circumstances. Any substitutions or alterations will be updated on our web page as soon as possible.

DATA PROTECTION

The information you provide will be safeguarded by PetroSync that may be used to keep you informed of relevant products and services. As an international group we may transfer your data on a global basis for the purpose indicated above. If you do not want us to share your information with other reputable companies, please tick this box.

CANCELLATION POLICY

You may substitute delegates at any time as long as reasonable advance notice is given to PetroSync. For any cancellation received in writing not less than fourteen (14) working days prior to the training course, you will receive credit voucher less a SGD $200 administration fee and any related bank or credit card charges.

Delegates who cancel less than fourteen (14) working days of the training course, or who do not attend the course, are liable to pay the full course fee and no refunds will be granted.

In the event that PetroSync cancels or postpones an event for any reason and that the delegate is unable or unwilling to attend in on the rescheduled date, you will receive a credit voucher for 100% of the contract fee paid. You may use this credit voucher for another PetroSync to be mutually agreed with PetroSync, which must occur within a year from the date of postponement.

PetroSync is not responsible for any loss or damage as a result of the cancellation policy. PetroSync will assume no liability whatsoever in the event this event is cancelled, rescheduled or postponed due to any Act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, industrial action, or any other reason beyond management control.

CERTIFICATE OF ATTENDANCE

70% attendance is required for PetroSync's Certificate of Attendance.

Please accept our apologies for mail or email that is incorrectly addressed. Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them accordingly.

CHARGES & FEE(s)

- For Payment by Direct Telegraphic Transfer, client has to bear both local and overseas bank charges.
- For credit card payment, there is additional 4% credit card processing fee.

All bank charges to be borne by payer. Please ensure that PetroSync Global Pte Ltd receives the full invoiced amount.

payment is mandatory for event attendance.