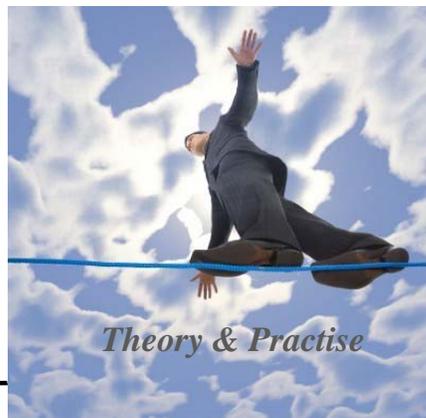


## ***Applied Risk Assessment into EPC Projects***

***By***

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### ***Overview:***

*A risk is any factor that has the possibility of causing harm and/or loss the project. A risk is also any factor that might keep the project from obtaining its objectives. The existence of risk is not a bad thing; in fact, there probably is no project that is "risk free"*

### **you will learn how to:**

- *Manage project risk effectively to deliver successful projects that meet stakeholder needs*
- *Apply customisable, industry-robust templates to create a Risk management Plan and Risk Register*
- *Leverage a proven 7-step qualitative risk analysis process to identify risk exposure*
- *Translate risk into actual time and cost impact using proven quantitative risk analysis tools*
- *Utilise a tested 7-step technique to design your risk response strategies*
- *Monitor risk triggers to control uncertainties and maximise project payoff*

## Benefits

All projects involve risk. To quantify and manage risks, you need to thoroughly analyse risk before and during a project. In this course, you develop strategies to identify and measure the risks in project development and implementation. You learn to quantify risks and create effective risk response strategies to deliver projects that meet stakeholder expectations. Also for 2 (two) days your given

theory of risk management, and during 3 (three) another days its you will be trained in practise & comphesive to conduct risk assessment for a dummy project that will be built and expected you can use it after return to your office. Finally, you will end the workshop with new practices to apply you environment and new insights on the implications and advantages of applying risk management well.

## Workshop Synopsis

Project management is opportunity management. It is the ability to seize opportunities, minimize threats and achieve optimum results. Too often, *risk Management* is seen as reactive, or worse, unresponsive. Nothing could be further from truth. In this Risk Management workshop, you will work through the proactive to threat and opportunity- base on a clear understanding of the powerful nature of both qualitative and quantitative approaches to risk management.

Risk Management examines threat and opportunity from both a top-down and bottom-up perspective using PMBOK's Guidelines proven eight-step risk management process. Using effective tools, including Risk's standard highly regarded risk assessment model, ypu will leran how to evaluate and respond to risk at the project and task levels.

Included in the workshop is a part case study that takes you from a risk overview at the beginning of project through the challenges of ongoing assessment and re-assessment of threats and opportunities throughout the project. The worksop materials (teory & case study) also include comprehensive or supporting materials specific to each unit of the workshop.

## Workshop Topics:

### *Overview of Project Risk Management*

- a) Definition and characteristics of "risk"
- b) Elements and factors of risk
- c) Types of risk
- d) Components to risk management
- e) Recognising risk in all projects
- f) Using risk management best practices, tools and techniques to achieve project success

### *Designing Critical Platforms for Success*

- a) Creating a Risk Management Plan (RMP)
  - Analysing contents of a model RMP
  - Applying a standard template to create your RMP
- b) Identifying project risk
  - Common sources of project risk
  - Creating Ishikawa diagrams to analyse cause and effect relationships
  - Utilising checklists
  - Assessing high-level risks to the organisation
- c) Developing a Risk Register
  - Analysing contents of a model Risk Register
  - Applying a proven template to create your Risk Register
  - Communicating risks to stakeholders
  - Documenting risks for future assessment

### *Improving Project Performance Through Qualitative Analysis*

- a) Analysing risks through qualitative measures
  - Performing probability and impact analyses of identified risk
  - Applying the probability and impact matrix
  - Advanced applications of qualitative analysis
- b) Prioritising analysis results

- Ranking project risks
- Differentiating between acceptable and unacceptable risks

### *Analysing Risks Using Quantitative Methods*

- a) Quantifying effects of risk events on the project
  - Determining probability of achieving cost and time objectives
  - Calculating contingency reserves
  - Identifying trends in quantitative analysis
  - Ranking risks by actuarial cost
- b) Tools for analysis
  - Expected Monetary Value (EMV)
  - Three-point estimates
  - Probability distributions
  - Delphi Technique
  - Simulation

### *Risk Response Planning*

- a) Implementing risk response strategies
  - Risk response strategies for opportunities and threats
  - Risk acceptance
  - Risk avoidance
  - Risk mitigation
  - Enhance
  - Transference
  - Establishing reserves
  - Quantifying residual risks and secondary responses
- b) Creating contingency plans
  - Determining the worst case scenario
  - Recalculating confidence levels
  - Contingency plans and workarounds
  - Risk evaluation & re-assessing risk
  - Applying a seven step process to risk response planning

### *Making Decisions Under Uncertainty*

- a) Psychological factors in decision making
  - Practical applications of Prospect Theory
  - Recognising bias with Utility Theory
- b) Tools to enhance objectivity
  - Maximising returns through the use of payoff tables
  - Applying decision trees with Precision Tree software
  - Dealing with unknown risks using workarounds

### *Monitoring and Controlling Risk*

- a) Identifying emerging project risks
  - Matching identified project risk with controls including Risk Audit, Variance Reports, Reserve Analysis
  - Anticipating risk events through risk triggers
  - Measuring risk using earned value analysis (EVA)
- b) Ensuring effective change control
  - Developing a reliable change request process
  - Recommending corrective action

### *Leveraging Project Experience*

- a) Creating an end-of-project risk report
- b) Compiling lessons learned in a risk database
- c) Recognising the value of mistakes
- d) Ensuring continual process improvement

## **PARTICIPANT**

- *Project Manager*
- *Project Engineers*
- *Project Planning Engineers*
- *Project Cost & Control Engineers*
- *Project Construction Engineers*
- *Disciplines (SURF) Engineers*

- *Petroleum Engineers*
- *Supply Chains*
- *SHE*
- *Legal & Contract Engineers*
- *Finance & Accounting*
- *Coorporate & Business Planning*
- *Person who get benefit for attending this Course*

## **COURSE LEADER**

### **Ir. Pulung Susilo Rahardjo**

*He received Bachelor degree in Aeronautical Engineering from Mechanical Engineering Department, Industrial Engineering Faculty, Bandung Institute of Technology (ITB) on 1981. He has a professional and practice experiences as Project Management Senior Staff more than 30 years in National & Multinational Company special Oil & Gas Onshore & Offshore Industry. He also attended at many project management seminar & course program at Indonesian & overseas institution. He retired from PT. Medco E&P Indonesia on year 2011 and focused in Project Management Advisor.*