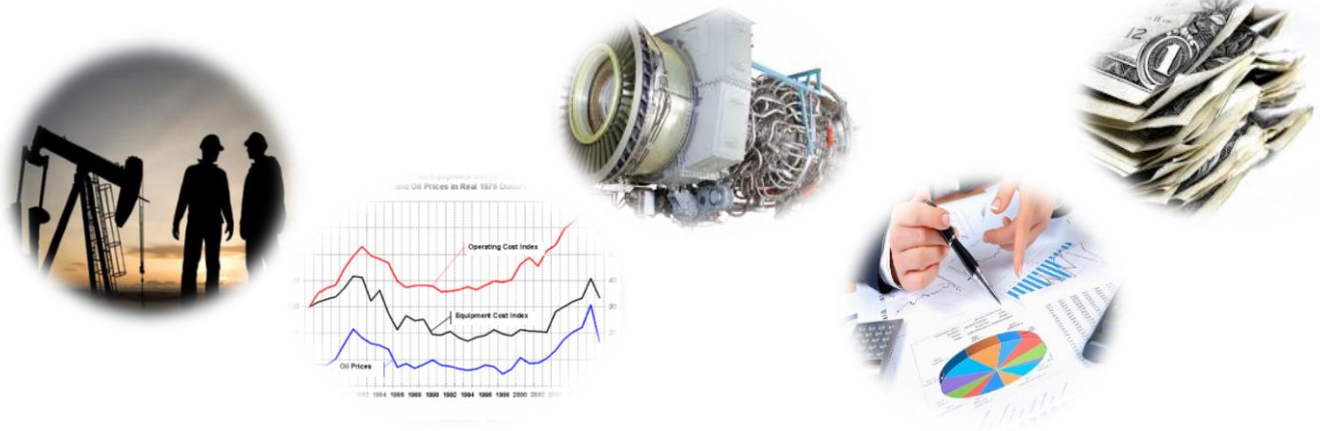


# OpEx

## Cost reduction Techniques

Learn best practices, tactics and different costs reduction techniques to reduce different costs: energy, downtime, labour, spares and managing ageing assets. The introduction to elements of the new ISO55000 that requires a defensible budget and risk based decision making and traceability.

19th – 21st October 2015 Kuala Lumpur, Malaysia



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## Program Overview

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With major reduction in the oil price and increasingly uncertain business environment, it is crucial for companies to reduce the second highest costs which is Maintenance. This practical 3 days OpEx cost reduction techniques workshop will cover all aspects of cost reduction techniques, to reduce: energy, downtime, labour, spares and managing ageing assets.

The new ISO 55000 for Asset Management requires that companies must develop defensible maintenance budgets and that assets must deliver value and decisions made must be traceable and auditable.

This workshop looks at different maintenance costs, how to develop maintenance budgets and how to report and reduce these costs, including a performance management system designed to meet the organization.

We will also cover financial decision making in maintenance to reduce whole life cycle costs and this includes when to replace ageing assets and to evaluate if life extension plans are cost effective.

### Attend this course to Master:

- How to evaluate projects in terms the financial people to understand.
- How to evaluate different options proposed using life cycle costing concepts.
- Discuss what are OpEx and CAPEX and where money is spent and controlled
- Understand tactics to reduce costs of unreliability, energy costs, spares costs and labour costs.
- Evaluation options e.g Different drivers.
- Introduction to ISO55000, what it means.
- Structured decision making based on business drivers.
- How to build a defensible budget to conform to ISO 55000 Asset Management system.
- How to prioritize which projects to implement.
- Understand how ageing assets are being managed
- Explore, apply and benchmark best practices strategies that can be apply immediately in your workplace.

### PRACTICAL INVOLVEMENT:

Having the ability to implement directly once you are back at your workplace is crucial for every participant. During the 3 days training, practical involvement and exercises will be share. Participant will be involved in exercises on evaluating different options for an improvement project (a bad actor) using life cycle principles.

- How and when to use discount factors with exercises.
- How to evaluate value of additional redundancy or effects of decommissioning.
- Calculating productivity improvements.
- Energy target & monitoring including cusum plots.
- Calculating ABC for stock control & calculating key KPIS.
- Evaluating projects using financial language.

### Group activities:

- Create a defensible budget for a pump and a repair, replace decision.

## This program is intended

This training course is designed for industry such as utilities, upstream & downstream oil & gas companies, FPSO operators, pipeline operators, chemicals, petrochemicals, cement, steel making, or manufacturing organisations:

- Plant Mangers
- Maintenance Planners
- Maintenance Engineers
- Maintenance Managers / Team leader
- Reliability Engineers
- Project Engineers/Managers
- Financial Personnel/ Team Leader
- Managers, Engineers, supervisor who budget and control costs.(OpEx and Capex)

# OpEX Cost Reduction Techniques (3 Days)

## **Topic 1 Introduction to Cost Management**

Key features for excellence

Outline of ISO55000 and the requirements for cost management

Costs Management and the model of excellence

Making profit and breakeven points

A model for cost control and why/where we spend money

Direct and indirect costs

## **Topic 2 Budgeting Formats**

Definition of a Budget

Financial and Activity Based Budgeting

Cost categories, Costs Centres, Cost Elements

OPEX and CAPEX

Short term and long term forecasting

## **Topic 3 Creating the Defensible Budget**

Approaches to budget creation

How to build a defensible budget

Focusing on critical assets

## **Topic 4 Whole Life Costing**

The whole life model and when to use

Different end of life drivers

The key drivers and the process

Estimating potential benefits

Case Study and Exercises

## **Topic 5 Different Decision Models**

Replace or repair

Replace with a superior unit

Replace like for like

Evaluating whether to mothball

Design modifications

Case studies and exercises

## **Topic 6 Justifying Projects (Financial Appraising )**

Financial metrics for evaluating projects (discounted and non-discounted models)

Time value of money

Discounting Factors and when to use

Project prioritisation

Exercises

## **Topic 7 Reducing Costs of Unreliability**

Ice berg model (direct and indirect costs)

How to calculate the costs of unreliability

Reducing the costs of unreliability through reliability and maintainability

- Topic 8**      **Reducing Costs through PM Optimisation**  
When to use MTBF in calculations  
PM Optimisation  
Relationship between PMs and Corrective Maintenance
- Topic 9**      **Reducing Stock Holding Costs**  
Opportunities & tactics to reduce costs  
What is the ABC in our CMMS and when do we use it  
Identifying excess costs
- Topic 10**     **Reducing Manpower Costs**  
Tactics to reduce costs  
Outsourcing pro & cons
- Topic 11**     **Reducing Energy Costs**  
Target and Monitoring Techniques  
Exercise
- Topic 12**     **RAM Modelling**  
Overview of RAM Modelling  
Modelling different configurations (GTs, Diesel Engines and Gas Engines)  
Obtaining life cycle costs
- Topic 13**     **Reducing Turnaround and Shutdown Costs**  
Prerequisite of an effective shutdown  
Identifying critical and sub critical activities  
Minimising costs
- Topic 14**     **Cost Performance Management System**  
An introduction to the principles of a performance management system  
Key Performance Indicators  
Agreeing targets for achievement, taking action  
Report formats including dashboards
- Topic 15**     **the UK Experience**  
Overview of the UK's HSE KP4 to managing ageing assets  
Typical Findings  
Sample check lists
- Topic 16**     **Workshop Review**  
Delegates Action Plans

# Principal Program Facilitator



## David Thompson, RAMsoft UK

David extensive experience covers all aspects in Maintenance, Reliability and Operation management. His area of strength covers specifically in maintenance management audit reports , RCA , Shutdown planning and failure code systems ,CMMS , KPIs , Spares Optimization , RCM and RAM Modelling

### RAMsoft, UK

For the past 40 years, David had been actively involved in:

- Conducted over 400 audits including fast track audits, in-depth audits and distance audits in maintenance management
- Developed Policy and procedures documents for a number of Oil & Gas Companies.
- Currently working for Worley Parsons in UK writing document for a number of FEED projects worldwide.
- Wrote standard and guidelines on many topics on maintainability, RCA, workpacks, Shutdown planning and failure code systems.
- Wrote over 400 audits reports covering excellence in Maintenance management and in specialist topics spares, CMMS , KPIs and Reliability Management system.
- Presented Papers at several Maintenance & Reliability Symposiums in Europe, Malaysia and Brazil.
- Online distant learning instructor for Robert Gordon University in Assets integrity and Reliability Management.
- Undertaking a major CMMS data Cleansing Project as part of a CMMS upgrading.

### Symposiums

- European & world Maintenance Congress 2007
- Applied Reliability Symposiums – Europe 2009, Brazil 2008, Asia 2006,2007, 2010.
- Presented paper at the Applied Reliability Symposium Singapore 2013 (4<sup>th</sup> Year)

David has worked for many blue chip companies either directly or through a consulting role.

David,s International Clients : Nippon Oil , Talisman , Petrofac , State Oil Dubai Petroleum , Novartis , EGGBOROUGH POWER STATIONS , Chinese Oil & Gas company ,worley parsons , sabc, Qatar petroleum , Scottish power , wood group , shell Nigeria , Hunstman , ENI oil , Saudi Aramco and SONANDOL P&P

David has conducted many audits of maintenance practices and CMMS use spanning the last 20 years. David has a particular interest in helping companies collect better data and to try and make reliability of interest to the regular maintenance engineer by concentrating on applications rather than complex mathematical theory.

David is a certified instructor in RCA, and Reliability Methods and Techniques. David has developed and delivered training programs world wide including both offshore and onshore facilities topics include Maximo CMMS, RCM, FMECA, Weibull Analysis, RAM Modelling, Reliability Growth, Analysis, and Fault Tree Analysis, Incident / Root Cause Analysis, work planning and control, spares optimisation. In addition David has conducted training in many other maintenance management topics

### Early days

David initially started in the steel making and mining sectors and for the past 15 years in the oil & gas sector. David was the UK partner for Reliasoft one of the worlds leading reliability engineering companies, and is currently part of a team to implement improved Asset Reliability in the Middle East, including RAM and RCM studies.



PETRO1 provides Oil & Gas Trainings & Consultancy services ranging from Petroleum Engineering, Exploration & Production, Subsurface and business related activities in the oil & gas industry. We had successfully made impact to petroleum professional mainly the Top 50 Oil & gas players in the Asia Pacific Region.

- |                         |                              |   |
|-------------------------|------------------------------|---|
| ▪ Total E&P             | ▪ Petrofac                   | ▪ SGS                                   |
| ▪ Petronas              | ▪ Keppel Corporation         | ▪ PTT EP                                |
| ▪ Murphy Oil            | ▪ Singapore refining Company | ▪ Halliburton                           |
| ▪ JX Nippon             | ▪ Salamander Energy          | ▪ Brunei LNG                            |
| ▪ Scomi Oil             | ▪ Binh Son Refining Vietnam  | ▪ Shell Chemical                        |
| ▪ Hess                  | ▪ PTT Global                 | ▪ Worley Parson                         |
| ▪ Saipem                | ▪ Newfield                   | ▪ China university of petroleum Beijing |
| ▪ Clough                | ▪ Atkins Australasia         | ▪ Thaioil                               |
| ▪ Mubadala Petroleum    | ▪ Brunei Methanol            | ▪ Aker Solutions                        |
| ▪ Bureau Veritas        | ▪ Curtin univeristy          | ▪ Star Petroleum                        |
| ▪ Pertamina             | ▪ Technip                    | ▪ Jurong Shipyard                       |
| ▪ Peritus international | ▪ Premier Oil                |   |

## Investment Packages

OpEx cost Reduction Techniques	Early Bird Price 3 Days	Standard Price 3 Days
Per participant	SGD 2967 ( )	SGD 3179 ( )
<b>REGISTER 3 AND SENT THE 4<sup>TH</sup> FREE</b> <ul style="list-style-type: none"><li>- Please note that all registration must be made at the same time to qualify.</li><li>- <b>The above price are inclusive of GST 6%.</b></li><li>- Early Bird Promotion Deadline – 10th October 2015</li></ul>		

## Delegate Details

1. Name: \_\_\_\_\_ Mr  Mrs  Ms  Dr

Job Title: \_\_\_\_\_

Email: \_\_\_\_\_

Contact No: \_\_\_\_\_

Department: \_\_\_\_\_

2. Name: \_\_\_\_\_ Mr  Mrs  Ms  Dr

Job Title: \_\_\_\_\_

Email: \_\_\_\_\_

Contact No: \_\_\_\_\_

Department: \_\_\_\_\_

3. Name: \_\_\_\_\_ Mr  Mrs  Ms  Dr

Job Title: \_\_\_\_\_

Email: \_\_\_\_\_

Contact No: \_\_\_\_\_

Department: \_\_\_\_\_

Head of Department: \_\_\_\_\_

## Invoice Details

Invoice Attention to: \_\_\_\_\_

Company: \_\_\_\_\_

Industry: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

## REGISTRATION FORM

### PROGRAM DETAILS

Venue: Kuala Lumpur, Malaysia

Date: 19<sup>th</sup> – 21<sup>st</sup> October 2015

#### REGISTER NOW

CONTACT: kelvin

MAIN: +603 7727 3952

FAX: +603 7722 5278

Email: registration@petro1.com.my

## Payment by credit card

Please Debit my credit card:

VISA  MASTERCARD

Card Number: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Security Code:     Expiry Date:

Named printed on card: \_\_\_\_\_

Signature: \_\_\_\_\_

#### Payment Method

By cheque/ Bank Draft: Made Payable to PETRO1 SDN BHD

By Direct Transfer: Please quote invoice numbers on remittance advice.

#### GST input Tax claim

Organization who have register under GST is allow to claim on any GST incurred (Known as input tax) on their purchase to the business.

ACCOUNT NAME : PETRO1 SDN BHD  
BANK : HSBC Amanah Malaysia Berhad  
ACCOUNT NO : 054 - 048061 - 701 (SGD)  
SWIFT CODE : HMABMYKL

**All bank charges to be borne by payers. Please ensure that PETRO1 SDN BHD received the full invoice amount.**  
**\* Credit card payment will include a charges 3%**

**Payment Policy:** Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Payment is required with registration and must be received prior to the event to guarantee the seat. Payment has to be received 7 working days prior to the event date to confirm registration.

**Venue:** All of our training courses are held in 4 – 5 star venues.

The course fee does not include accommodation or travel cost. It's recommended to book the hotel room early as there are only limited room available at the discounted corporate rate.

#### DATA PROTECTION

The information you provide will be safeguarded by Petro1 that may be used to keep you informed of relevant products and services. We take it seriously when it come s to protection of our client data.

**Cancellation & Substitutions:** Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Should you be unable to attend, substitutes are always welcome at no additional cost. Please inform us as early as possible. Payment is non-refundable if cancellation occurs 7 working days prior to event commencement. However a substitute is welcome at no additional charges. If cancellation occurs 5 working days prior to the registration date and there is no substitute, the organizer reserves the right to charge 50% of the total investment from your organization.

PETRO1 SDN BHD is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. PETRO1 SDN BHD shall assume no liability whatsoever in the event this training course is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, war, fire, labor strike, extreme weather or other emergency.

**Walk in Registration:** Walk-in participants with payment will only be admitted on the basis of seat availability at the event and with immediate full payment.

**Program Change policy:** The organizer reserves the right to make any amendments and/or changes to the workshop, venue, facilitator replacements and/or modules if warranted by circumstances beyond its control.