Asset Integrity Management of Onshore and Offshore Petroleum Production and Process Systems

18 - 20 March 2015
Prince Hotel & Residence Kuala Lumpur, Malaysia

Why should you attend?

- Recognise and analyse the difficulties, challenges, problems and opportunities presented in onshore and offshore engineering and operations in frequently changing operating conditions and regulatory requirements
- Optimise engineering, safety, and operational efficiency using proven and adaptive best managed, controlled and practical solutions
- Optimise operating loss, waste, cost and risks in potentially highly capital intensive and potentially complex and challenging projects
- Examine and critique engineering asset management case studies, asset integrity failures and successful benchmarking practices in different regions of the world (e.g. UK and Norway)
- Allow participants to become familiar in organising, implementing and controlling frequently changing AM (Asset Management), IM (Integrity Management) and AIM (Asset Integrity Management) related projects: KPI’s, smarter maintenance recording, organisational alignment, HSE&Q assurance, lean office approach, continuous development and sustainable performance, and change management

By the end of this course, participants should be able to comprehend the following:

- How to manage assets in the petroleum industry in a sustainable and safe manner
- How to assess and control the Asset Integrity of operational assets in production and process systems
- How to perform integrity management on topside and subsea systems?
- How to realise the overall AM process from a systems engineering perspective
- Problem areas and risks present in operational assets, understanding the importance of due diligence in project management, controls and contingency planning
- Use of adaptive technologies and techniques in engineering projects

For further information, please visit http://www.spe.org/training/courses.php or call +60.3.2182.3000
The understanding of Asset Management (AM) is vital in managing corporate assets effectively to gain maximum value, profitability and returns while safeguarding personnel, the community, and the environment. In this context, an Asset Integrity Management (AIM) program provides a backbone and incorporates design, maintenance, inspection, process, operations, and management concepts, since all these disciplines impact the integrity of infrastructure and equipment. This course begins with concepts of AM in the offshore and onshore industry (ISO 55000). It then focuses on the concepts of AIM (i.e. design, technical and operation integrity) in safeguarding of operational systems moving along with the approaches to Reliability Centered Maintenance (RCM), Failure Mode Effect and Criticality Analysis (FMECA), Risk Based Maintenance (RBM) and Risk Based Inspection of static process equipment, maintenance planning of rotating equipment, mitigating the challenges caused by human factors, effective project management strategies and etc.

Who Should Attend?
• Engineering AM and AIM personnel
• Technical Safety personnel
• Engineers involved in maintenance and modification projects
• Inspection and maintenance analysis and planning personnel
• Project managers and project engineers
• Technical discipline responsible personnel

About Your Course Instructor

Dr. R.M. ChandimaRatnayake is an Associate Professor - of Mechanical Engineering in the University of Stavanger, Norway. He received; a B.Sc. in Production Engineering & M.Sc. in Manufacturing Engineering in the University of Peradeniya Sri Lanka and PhD in Offshore Engineering in the University of Stavanger, Norway. He also works as an ‘Integrity Management Technical Advisor’ with Wood Group Kenny Norway AS. He has also served as a ‘Maintenance Engineering Specialist’ in ApplySørco, AS -, Norway and as a ‘Senior Engineer’ in Aker Solutions Offshore Partner -, Stavanger, Norway. He also served in the capacities of visiting Associate Professor and Assistant Professor from August 2007 to July 2010 in the University of Stavanger, Norway and lecturer to number of universities & educational institutions in Sri Lanka. Presently he lectures; Manufacturing & Production Engineering and Product Development & 3D Modeling for B.Sc. students, Computer Aided Engineering (Integrated operations of production and process systems, RFID and bar code technology and automated systems) for M.Sc. students and two PhD courses (Industrial asset integrity assessment & control and Multi-criteria Decision Analysis) at the Department of Mechanical and Structural Engineering and Materials Science, University of Stavanger, Norway. He also conducts courses for practicing engineers in Oil & Gas industry and manufacturing sector in national and international level. He also has been invited for numerous international level conferences as a speaker within the contexts of Health, Safety & Environmental issues, Sustainability, Maintenance, Criticality Analysis, Risk Based Inspection and Reliability Centered Maintenance, Asset Integrity Control, Data Management, Human factors, etc.

Dr. Ratnayake is currently supervising B.Sc. & M.Sc. these projects as well as a PhD research project. He has also attained another research funding to start a PhD project in the middle of 2014. He has published a number of articles in peer reviewed journals and conference proceedings as well as book chapters. He is an Editor of the Central European Journal of Engineering (Industrial Engineering/Offshore Engineering) and a member of the editorial board of International Journal of Computational Systems Engineering. He has also - served as an ad hoc reviewer and member of technical committee for several international conferences and journals.

CEUs

Engineers are responsible for enhancing their professional competence throughout their careers. Licensed, chartered, and/or certified engineers are sometimes required by government entities to provide proof of continued professional development and training. Training credits are defined as Continuing Education Units (CEUs) or Professional Development Hours (PDHs).

Attendees of SPE training courses earn 0.8 CEUs for each day of training. We provide each attendee a certificate upon completion of the training course.
Day One: Offshore Asset Management
• Introduction to concept of offshore asset management
• Role of ISO 55000 (or PAS 55 1&2)
• Current trends in offshore asset management

Session Two: Offshore Integrity Management
• Introduction to concept of offshore integrity management
• Role of human factor and sustaining integrity
• Cases of offshore integrity failures leading to loss of goodwill

Day Two: Maintenance Planning Of Rotating Equipment: Topside
• Introduction to standards
• Functional failure analysis and consequence classification
• Current challenges

Session Three: Integrity Management (Risk Based Approach) Of Static Process Equipment: Topside
• Standards and regulatory requirements for IM: risk based inspections
• Integrity assessment and control of topside systems
• Challenges and case studies in inspection planning and execution

Session Four: Integrity Management (Risk Based Approach) Of Subsea Systems
• Standards and regulatory requirements for subsea systems IM
• Integrity assessment and control of subsea systems
• Challenges and case studies: integrity assessment and control

Day Three: Asset Integrity Measures/Key Performance Indicators (KPI’s)
• Introduction to performance measurement and performance measures
• Performance indicator prioritization approach(s) for asset integrity assurance
• Current trends

Session Two: Maintenance Performance Indicators And Measures
• Introduction to guidelines and standards
• Traditional measures used in the oil and gas industry vs. future challenges in remote and harsh environments
• Latest developments

Session Three: Smarter Maintenance Recording
• Introduction to safety critical equipment and barrier management
• Assigning safety critical status and current challenges: An industrial case study

Session Four: Recent Developments On Asset Integrity
• Documentation and standard work practices: lean approach
• Managing the change: continuous improvement for sustainable performance
• Need of organizational alignment for HSE&Q (health, safety, environment and quality) assurance

DAILY TRAINING SCHEDULE

Day One (Wednesday, 18 March 2015)

Day Two (Thursday, 19 March 2015)

Day Three (Friday, 20 March 2015)

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Registration Form

Date: ____________________________________________ Member No: ____________________________________________

First Name: ____________________________________________ Last Name: ____________________________________________

Company: ____________________________________________ Job Title: ____________________________________________

Address: ____________________________________________________________________________________________

Town/City: ____________________________ Country: ____________ Postal Code: ________________

Telephone No: ____________________________ Email: ____________________________________________

Registration Fees: (Please select appropriate box)

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<tr>
<th>Early Bird Registration On/Before 11 February 2015</th>
<th>Registration After 11 February 2015</th>
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<tbody>
<tr>
<td>SPE Member</td>
<td>Non-SPE Member</td>
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<tr>
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- Registration Deadline: **4 March 2015**
- Fee includes course registration, training materials in digital format, 3 luncheons and daily coffee breaks
- If attendance is not sufficient for the course by 4 March 2015, SPE reserves the right to cancel the course

Payment By Cheque
- U.S. Dollars Cheque to Society of Petroleum Engineers
- Payment Enclosed (Check No. ____________________)

Payment By Credit Card
- Credit Card Payment will be in U.S. Dollars only
  - American Express
  - Master Card
  - Visa
  - Diners Club

Card Number: ____________________________ Expiration Date (mm/yy): ____________________________

Security Code (3 digit on back of card / 4 digit on the front of Amex): ____________________________

Credit Card Billing Address & Zip/Postal Code: ____________________________________________________________________________________________

Name of Card Holder Signature: ____________________________

Note: Forms will not be processed and space cannot be guaranteed unless accompanied by payment for total amount

Cancellation Policy

a) A processing fee of US$150.00 will be charged for cancellation received before registration deadline **4 March 2015**.

b) Cancellation received after registration deadline **4 March 2015**, a 25% refund will be made to the registrant.

c) No refund on cancellation received seven (7) days, **11 March 2015**, prior to the starting of the course date.

d) No refund will be issued if a registrant fails to show up for the training course.

This form may be used as a company invoice

Mail completed registration form with remittance and any supporting material to:

Society of Petroleum Engineers
Level 35, The Gardens South Tower,
Mid Valley City, Lingkaran Syed Putra,
59200 Kuala Lumpur, Malaysia
Tel: 60.3.2182.3000 | Fax: 60.3.2182.3030
E-mail: trainingapac@spe.org

*For group booking, please contact us at trainingapac@spe.org

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What are the benefits of becoming an SPE Member?

- Belong to a network of 110,000 professional members in 141 countries
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- Opportunities to present technical papers in a journal or at a conference
- Leadership and volunteer opportunities helping members build industry relationships though service to the society
- A Career Center with tools aiding members with continuous development of new skills
- Enhance your career with various programs, including eMentoring, Distinguished Lecturer, Training Courses and online communities