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

Course Outline

Day 1

SESSION 1: Offshore Asset Management
- Introduction to concept of offshore asset management
- Role of ISO 55000
- Current trends in offshore asset management

SESSION 2: Offshore Integrity Management
- Introduction to the concept of offshore integrity management
- Role of human factor and sustaining integrity
- Cases of offshore integrity failures leading to loss of goodwill

SESSION 3: Offshore Asset Integrity Management
- Introduction to concept of offshore asset integrity management
- Design, operational and technical integrity assessment and control approaches
- Cases of asset integrity failures leading to catastrophic accidents

SESSION 4: Approaches Used for Asset Integrity Management (AIM)
- Introduction to approaches used for AIM
- Current trends towards AIM
- Cases of Asset Integrity failures

Day 2

SESSION 1: Reliability Centered Maintenance (RCM) and Failure Mode Criticality and Effects Analysis (FMECA)
- Introduction to RCM, regulatory requirements and standards
- Running RCM projects
- Roles and responsibilities, documentation and reports

SESSION 2: Risk Based Inspection (RBI) and Planning
- Standards and regulatory requirements for RBI
- Inspection planning and execution of topside systems
- Challenges and case studies in inspection planning and execution

SESSION 3: Maintenance Planning of Rotating Equipment
- Introduction to standards
- Functional failure analysis and consequence classification
- Current challenges

SESSION 4: Summary of Static Process Systems and Rotating Equipment Analysis
- Standards and role of the terminology
- Current challenges in assessing performance
- Potential solutions
Day 3

SESSION 1: Role of Technology Qualification in the Petroleum Industry
- Introduction to regulatory requirements and standards
- Technology qualification case from remote operations
- Current trends

SESSION 2: Managing Engineering Projects with variable activity durations
- Introduction to project management and standards
- Role of planning, scheduling and crashing
- Introduction to project evaluation review technique
- Evaluation of project completion under uncertainty
- Latest developments

SESSION 3: Engineering Project Crashing
- Introduction to project crashing approaches
- How to accelerate projects optimised resource allocation
- Project crashing case

SESSION 4: Strategies for Onshore and Offshore Information Management
- Offshore assets and data sources
- Need for Statistical and Empirical Science
- Use of Statistical Engineering Science
- Role of Knowledge Based Design and Asset Integrity
- Data and Information Management of MMO and EPCIC Projects
- Roles and contents of an industrial organisation