



Understanding and Improving Equipment Reliability using Engineering Simulation

Speaker: Vikas Yadav
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Date: August 12, 2014 | **Time:** 11.00am (IST) / 13.30pm (SGT) | **Duration:** 60 Minutes

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The oil and gas industry has a sharp focus on safety and reliability. This is understandable because economics of oil & gas production- maintenance and unscheduled down time are expensive. In addition, product failure can have enormous impact on environment and loss of human life. As a result the industry spends a large part of the R&D and product development budget on developing reliable products. The challenge is to develop these products for real life conditions that often are impossible to replicate in experiments.

This webinar will cover simulation of specific applications for the energy industry with focus on structural mechanics to help with product design, failure analysis, structural integrity and fracture mechanics. Although the capabilities described are general; examples from the oil and gas industries will be used to highlight how engineers are developing safe and reliable equipment for ever more complex projects at harsher environments, deeper waters. Among other applications this webinar highlights how ANSYS engineering simulation solutions are helping engineers design and analyze the reliability in several areas. These include threaded connections for downholes tools and pipes, evaluating the performance of elastomeric seals and large deformations that allow to operate safely under increasing high applied torques and high pressure and high temperatures.

Technical topics covered include:

- Buckling and Collapse
- Leakage – Sealed Connections
- Threaded Joints
- Fracture Mechanics
- Non-linear/Complex Contacts

Who should attend?

Equipment designers, engineers, managers and directors responsible for products and equipment quality and reliability

Speaker Profile:

Vikas Yadav has been with ANSYS for 7 years and has been working closely with North America oil and gas accounts. He has experience in Modeling Threaded Connectors, Modeling DownHole Tools, Soil Modeling, Seal Modeling. He is a IIT Kanpur Alumnus and he works out of Pune office.

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