Evening Technical Meeting: Advancements in Riser Technology

Wednesday 10th April 2019 Venue: Parmelia Hilton Hotel (Stirling Room), Mill St. Perth



Onsite Registration 5.30 pm; Presentations 6.00 pm - 7.30 pm; Networking over drinks and finger food 7.30 pm - 8.30 pm

To register for the event visit https://sutetm10april2019.eventbrite.com.au

Chaired by: Stuart Higgins - Curtin University

Flexible Riser Life Extension with Innovative Methods: Christian Wiebe, Principal Flexible Riser Engineer, 2H Offshore

Flexible riser corrosion and fatigue, particularly with water filled or flooded annuli, is an ongoing area of concern for many operating FPSOs in the region. 2H Offshore have successfully supported clients, operators as well as suppliers, in evaluation of the riser condition and fatigue analysis in the past. The presentation will explore how we combine global response and local stress analysis capabilities with field proven inspection and monitoring equipment to ensure flexible risers can be operated safely and effectively. We will provide an insight into how we are using annulus testing and monitoring equipment to evaluate the operating conditions, including development of S-N data, and measure the riser response to loading. Following on from this, we will examine how this data feeds into an engineering analysis using "conventional" finite element analysis and trailblazing methods using artificial neural networks. Closing out, we will demonstrate how this has assisted clients in making informed and practical decisions for the future of their assets.

Elastomeric Solutions for Marine Moorings and Risers: D. G. Aubrey, CEO, EOM Offshore LLC

For shallow water/near-surface marine risers and moorings, dynamic forces create significant loads on their components, shortening lifespan and complicating mooring geometries. Examples abound in offshore wind, wave and tidal energy, fisheries and aquaculture applications, oceanography, small boat harbors, etc. Other requirements sometimes include power and data communications from the surface asset to/from a near-bottom distribution network. Complex and energetic waves and currents mandate compliance be built into moorings and risers. In most instances, geometric compliance is used, thereby increasing the watch circle and area for the installation, complicating service and support operations. Elastomeric solutions have been implemented for a decade or more, providing compliance, power generation, and data transfer within a rugged mooring element built to withstand tens of millions of cycles of stretch. These elastomeric solutions have been applied to oceanographic moorings, environmental observation systems, boat moorings, aquaculture/fisheries, offshore energy, and other marine applications.

Flow Induced Vibration - Flexinsert & MAPS Integrity Management: Jess Zlokich, Baker Hughes, a GE Company Due to the large amount of gas reserves in the Asia Pacific region, there is increased requirements for large diameter gas export risers. The high velocity dry gas flowing through these risers creates the risk of flow induced vibration, in which vortices are formed in the carcass profile resulting in vibration in the riser. Although this vibration does not affect the integrity of the flexible pipe, it can cause failure of the rigid topside and subsea structures. BHGE have developed a solution with a T-shaped spiral insert into the carcass layer called "Flexinsert". As this is a standalone layer the rest of the pipe remains the same ensuring the overall pipe integrity. BHGE have also developed a "MAPS Integrity Management" which detects wire breaks in the tensile and pressure armour layers of the flexible pipe. The equipment, installed on the outer sheath, is portable, rapid and non-destructive and does not compromise riser integrity.

ETM programme is subject to change

Registration Costs	Early bird (by 02/04/19)	Regular (from 03/04/19)	Late (from 2pm 10/04/19)
Member: Student/Individual/Corp	\$30*	\$40	\$45
Non-Members	\$50	\$60	\$65
5 Ticket Member Pass	\$125	\$200	\$225
5 Ticket Non-Member Pass	\$225	\$300	\$325

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(correct at time of creating flyer)

CPD = 1.5 hrs

SUT Evening Technical Meeting registrations are online. Payment during the registration process (via credit card or invoice) is required in order to secure your place. 5 Ticket Season Passes are for consecutive meetings. They can be transferred to a fellow Member or Non-Member if you cannot attend. Should you have any questions please contact the SUT on + 61 (0) 8 9481 0999 or email p.slapp@sut.org.

