

## Evening Technical Meeting: Researching into the Subsea Future

Report on SUT Perth Branch Evening Technical Meeting  
Wednesday 11<sup>th</sup> April 2018

*By Jatin Lodhia, Perth Branch ETM Committee Member*



The April 2018 SUT Evening Technical Meeting (ETM) at the Parmelia Hilton was co-opened by SUT Perth Branch Vice-Chairman, Rex Hubbard and Jennifer Maninin with the evening being chaired by SUT ETM Committee Member Jatin Lodhia. The event was kindly sponsored by Curtin University, University of Western Australia (UWA) and Woodside Energy Limited (WEL).

The theme of the ETM was a showcase of current research within the subsea industry hence the range of topics discussed on the night covered over a broad range of disciplines. There were a total of four presentations during the evening, two from UWA and one each from Curtin University and Edith Cowan University (ECU). The evening also presented the opportunity to six additional students/researchers to display and discuss their research through a poster display during the networking sessions before and after the main presentations. To note, this evening was also the first event that ECU had presented at an ETM.

The first presentation was conducted by Abdul Fahad Mueed of Curtin University discussing his research into stored electrical power and potential to change subsea system power distribution. The presentation gave an evaluation of the current capabilities of battery technologies how lithium-ion battery technology can be the most favourable for adoption in in subsea applications. Overall, the presentation was delivered confidently and garnered some interesting questions from the audience.

Next up was Lisabeth Wagner from UWA who presented her research on quantitative discharge water analysis using mobile <sup>1</sup>H NMR. Whilst Lisabeth began her presentation a little too quickly for some of the audiences' liking, she settled into a good rhythm and delivered in a confident manner. Her presentation discussed the development of reliable methods to monitor the water quality prior to direct discharge of the aqueous phase through NMR spectroscopy.

The third presentation saw David Szcpaniski deliver ECU's maiden presentation. His topic discussed steel lazy wave risers (SLWR) for turret vs. spread moored FPSO in extreme and wave-induced fatigue conditions. Unfortunately, it was evident during the presentation that the presenter was suffering from nerves having lost his cue on a number of occasions. The presentation discussed how the presenter's research concludes that turret-mounted SLWR demonstrates an unsatisfactory fatigue life compared to its mid-ship-mounted spread-moored counterpart, owing to riser hang-off location differences and correspondingly varied motions experienced by the riser.

The final presentation was delivered by a well-known figure within the SUT community, Terry Griffiths. His research looks into new paradigms in understanding the behaviour of cables and pipelines on rocky seabeds. The presentation was delivered in Terry's typical confident and easy to understand fashion where Terry discussed how his research is looking into developing new models of behaviour for cables on rock seabeds and how these models are suggesting that the cables are indeed stable which is consistent with field observations of their behaviour. Despite an initial pause from the audience, a good range of questions were fired towards Terry before the formal conclusion of the presentations.

The poster display was a new concept that was allowed six student / researchers to display their research in the form of a poster (A0 size) and discuss questions with the evening delegates. Overall, this new concept seemed positively received as the students / researchers were engaged with many of the near 71 attendees that remained after the presentations to network and enjoy refreshments.

Tying up, a huge thanks to all the participants for their presentations and poster displays during the evening. Further thanks to all SUT members and along with some non-members who gave up their own time to attend on the evening. Finally, a big thank you to Marketa of the SUT Perth Branch team who helped considerably in supporting the organisation of the event along with help from Jen Maninin and Fiona Allan as well.