

## Evening Technical Meeting: Real Subsea Accomplishments in Digital Technology

Report on SUT Perth Branch Evening Technical Meeting  
Wednesday, 8th August 2018

*By Pawan Gupta, Perth Branch Committee Member*



The August 2018 SUT Evening Technical Meeting at the new venue Four Points By Sheraton was co-opened by Jennifer Maninin and SUT Perth Branch Vice Chair Rex Hubbard with the evening being chaired by SUT Committee Member Pawan Gupta. The event was kindly sponsored by DNV-GL, IntecSea and Cisco.

The objective of the ETM was demonstrating what actually has been implemented and achieved in terms of improvement in safety, security and work force productivity in the age of IOT, AI and digital technology. We had four presentations with DNV-GL and Subsea Engineering Associates focusing on improved subsea pipelines system design and calculation in the digital age, IntecSea talking about flexible riser's integrity management using Digital Twin and finally Cisco's engaging presentation on cyber security for an IoT world.

First presentation was James Knipe of Subsea Engineering Associates who talked about the recent Balticconnector gas transmission project using their ICE (Intelligent Computation Engineering) Platform Technology to delivery a fast-track detail engineering project just in 14 weeks. James talked about the ICE platform, developed in Perth was an integrated suite of automation and data management technologies that accelerates many aspects of subsea and pipeline engineering. It was a well-received presentation and triggered multiple questions from the audience.

Next up was Hema Wadhwa of IntecSea presenting on recent West-Africa Bonga project where two flexible risers were inspected and assessed for integrity using FlexIQ process. Hema talked about how MEC-FIT riser inspection and defect identification was carried out followed by how numerical simulation and fatigue life estimation was conducted using the FLEXAS. The presentation covered the project overview and the findings to demonstrate the credibility of "Digital Twin".

The next presentation saw Nicholas Nielsen from DNV GL taking us through subsea pipelines' free-span assessment current approach and its limitations. This followed the implementation of revised DNVGL-RP-105 and better way of estimating fatigue life using Global Free Span Service. The presentation also talked on how use of cloud computing and storage has added computational power and systematic unlimited storage. Nicholas concluded his presentation by showcasing two project case studies using the new tool for the assessment of free spans and cost savings by eliminating potential need of subsea intervention work.

The final presentation of the evening was by David De Lima of Cisco Systems talking about the potential cyber security risks for an IoT world which was a good change from first three technical presentations. The presentation talked about typical way a malware works while giving real life examples of few previous cyber-attacks. The presentation was concluded by showing a video on anatomy of a cyber attack which was thought provoking to engineering professionals. David finished his presentation by giving a high level advise to all on how to protect individuals and organizations in an IoT world while dealing in social engineering and emails at work place.

Each presentation received various interesting questions for the audience. The discussion and networking continued into the Subiaco room where drinks and food were arranged. The event was attended by about 130 professionals which was a very good number considering a new venue with an evening with heavy showers. SUT distributed a small piece of sheet to register the feedback on new venue versus the old time Hilton.

To sum up, huge thanks to all the participants for their time and presentations. Also a special thanks to Hema for coordinating the presentations. Further, a great acknowledgement to Mark Casey and Jennifer Maninin for helping and supporting me in chairing my first ETM which I thoroughly enjoyed. Finally, a big thanks to Fiona Allan and Peter Clarke for helping with the registration and facilitating the Q&A session on the floor and also all the committee members in organizing such a wonderful event.