ESRA TC on Maintenance Modelling and Applications – Industrial Panel Session at ESREL 2018, Trondheim, Norway

Panelists
Kim Alexander Jørgensen – Lundin
Erling Lunde – Equinor ASA
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The ESRA TC on Maintenance Modelling and Applications organizes every year a gathering at ESREL conference.
For the ESREL 2018 edition, the TC maintenance annual meeting took place at Trondheim on June 20th, and consisted in an industrial panel session. The session was co-organised by the RAMS group of NTNU (Norwegian University of Science and Technology) in presence three Norwegian industrial partners concerned with maintenance problems: DNV GL, Equinor ASA and Lundin. People from the local industrial network joined to present their current main concerns in maintenance optimization and to confront them with the academia community. The presentation of the new current challenges in maintenance by the industrial partners was followed by a very lively debate on the topic. Some of the maintenance issues highlighted by the industrials are listed as follows:

1) Inspection policy optimisation based on efficient data analyses.
2) Remote inspection policy optimisation with joint cost, performance and risk perspective.
3) Prognostic precision improvement considering physical models and available data.
4) Useful prognostic by finding a balance between the data quality, the performance of data analysis methods and the prediction expectations.
5) Digitalization of the maintenance cycle.

In brief, the following challenges were pointed out:
1) Prognostic: Remaining Useful Life definition and RUL probability calculation based on physical models, probabilistic modelling, statistical tools and machine learning performances.
2) How to overcome the data treatment difficulties dealing with data with different quality and quantity?
3)How to create a better communication between data feeders and data analysts to fill the gap between what is available and what is needed.
4) Provide efficient tools to carry out real time data analyses and prognostics.

The ESRA TC on maintenance thanks the NTNU RAMS group for helping to organize this very interesting panel session. The public showed its interest by asking lot of questions and highlighting existing gaps between the academical research on maintenance and the real maintenance operations and current issues that industry is facing. Much work ahead in maintenance modelling and applications to tackle all these exciting challenges! Persons who are interested to discuss, exchange or deal with maintenance problems and the listed challenges are welcome to contact and to join the ESRA TC on Maintenance

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