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## ***“DNV GL Hybrid Sensor Technology”***

By

**FX Sireta**

*Technical lead and project manager, DNV GL Singapore*

**Date: Wednesday, 2 October 2019**  
**Time: 4:30 pm to 6:00 pm**  
**Venue: EA #06-05**  
**Faculty of Engineering,**  
**National University of Singapore**

### **Abstract**

DNV GL Hybrid Sensor Technology combines data from a few sensors on a structure with a global numerical model of the structure. A Hybrid Twin can be created featuring a virtually unlimited number of hybrid sensors that are used to get insight in all areas of the structure in real time. The operator can use just a few sensors to monitor the whole structure and have access to that data via a web-based dashboard. This new insight unlocks smarter ways of managing risks related to structural integrity management, from optimized inspections planning, to alarms for extreme events, root cause analysis for failures and asset suitability for life extension.

### **About the speaker**



FX Sireta was graduated with a master's degree in marine engineering from Ecole Centrale de Marseille (France) and followed the master's degree course in marine engineering at NTNU (Norway). His current role is the technical lead and project manager in DNV GL Singapore, delivering technical advisory services for naval architecture projects to the oil and gas and maritime industry. His area of expertise includes hydrodynamics and stability analysis, hydro-structure coupling, mooring and structural analysis. He serves as a member of the global DNV GL technical committee driving the company technical developments in fluid dynamics, structure and digital innovation using machine learning. He is also the idea originator and lead developer of the DNV GL hybrid twin technology for sensor based structural monitoring. Prior to joining DNV GL, FX Sireta was previously a research engineer and hydro-structure product leader at Bureau Veritas head office in France focusing on hydro-structure interactions in seakeeping. He was a developer of the Bureau Veritas Homer software for hydro-structure coupling for the global strength and fatigue assessment of floating structures for the offshore, shipping and renewable energies industry. FX Sireta is the main author and co-author of several papers published at international conferences.

