



IMAREST Benelux branch presents Programme 2017

Practical information for technical lectures
(unless otherwise specified):

Venue: TUDelft 3ME, Mekelweg 2 Delft
Coffee/drinks: 18.30
Starting time of lecture: 19.00
Closure: 21.30

For more information, updates of the
programme and membership visit the
website:

[http://www.imarest.org/events-
courses/events-conferences](http://www.imarest.org/events-courses/events-conferences)



Tuesday 7 February 2017

Technical lecture

Company: Feadship/RH Marine

Speakers: Mark Jansen, Alexander Breijts

Positions: Project manager, consultant

Company websites: www.feadship.nl,
www.rhmarinegroup.com.

Topic: Superyacht Savannah and DC propulsion

MY Savannah is based on the *breathe* concept. This propulsion package was designed to have a challenging high fuel efficiency. The interior and exterior accomplish synergy in the overall design. The *breathe* concept is now successfully turned into a superyacht with outstanding characteristics that received all international yacht awards and was nominated for the KNVTS ship of the year award.

Trends toward increasing demands for higher efficiency, smaller footprint and less noise on board ships asks for a new design philosophy of the ship's electrical power networks. Introduction of energy storage and hybrid propulsion systems even add to this need.

This presentation will provide insights in how the DC grid on board the MY Savannah supports the optimal utilisation of the hybrid power and propulsion system. Further it will discuss the advantages and disadvantages of the DC grid.

The presentation will conclude with the energy management automation optimizing power distribution during operation and subsequent recorded savings.

Thursday 6 April 2017

Technical lecture

Company: Damen/Next Ocean

Speakers: Albert Rijkens, Peter Naaijen

Positions: Project manager

Company websites: www.damen.com,
www.nextocean.nl

Topic: Development of a remote wave sensing technique and its potential application

Joint research at TU Delft and TU Twente and further development by the start-up Next Ocean resulted in a decision support tool that provides real time, on-board, time-specific prediction of waves and ship motions up to minutes ahead, using novel technology that turns any navigation radar into a remote wave sensor. This enables a brand new approach to operability: a glance into the future of the approaching waves enables us to anticipate, decide real time, on the spot: avoid operating during harsh wave groups, and grab windows of opportunity during low waves.

Operators of fast ships often face the difficult challenge to maximize speed in waves while keeping vessel motions and accelerations within safe operational bounds. To achieve the best performance during high-speed operation a method named "throttle control" is often applied by experienced helmsmen. A PhD project was initiated at TU Delft aiming at automation of this control principle. This study demonstrated that, with input from a remote wave sensor, the operability of small and fast craft can be significantly improved by application of this proactive control strategy.

Tuesday 6 June 2017

Technical lecture

Company: Ricardo UK ltd

Speaker: Jose Gonzalez Celis

Position: Chief Engineer Large Engines

Company website:

<http://www.ricardo.com>

Topic: Design aspects of a completely new medium speed engine platform

Ricardo has cooperated with an engine manufacturer to design a completely new medium speed engine platform. 18 months after commencing the initial layout design calculations, a production intent full scale engine achieved its first fired run at the engine manufacturer's development test facility. The engine has a market entry power rating of 530kW/cyl, initially employing single stage turbocharging, and is designed to operate at up to 250bar peak firing pressure. The initial production engine will run on HFO/MDO with further Natural Gas and Dual Fuel variants already under development, supported by an architecture of common major components. Extensive use of analysis and simulation tools enabled the engine design engineers to optimise the strength and durability of the engine design whilst at the same time enabling efficient manufacturing by a localised supplier base.

Thursday 21 Sept 2017

Technical lecture

Company: DMO

Speaker: Cdr (E) Ir. G. A. van Heusden & Lt Cdr (E) F. D. Geertsma, MSc.

Position: Program & project manager

Company website:

www.defensie.nl/organisatie/dmo

Topic: Manning & Automation RNLN

Over the year's naval warships have been equipped with systems of increasing complexity and interdependency that require an increased speed of response for the internal and external battle. Moreover, crew numbers have been continuously optimised. This has increased pressure on crews to operate these warships effectively. Unfortunately, most developments have been realised on a system or technology cluster level, increasing the technical workload on a ship level.

The Manning & Automation program of the Royal Netherlands Navy aims to innovate information technologies, automation and autonomous behaviour to integrally support its operating and manning philosophies. First, all information and automation systems are envisioned to be combined into one integrated IT-architecture that shares information and services on a technical, physical and functional level. Secondly, development of autonomous systems and increased mechanization will allow operations to be conducted more effectively and with less technical workload. This will enable personnel on board to focus on those tasks where human input or oversight is required. This lecture will give an overview of the program and highlight several innovation developments.

Friday 17 November 2017

Annual General Meeting & Mini-symposium

Speakers:

- Robert Hekkenberg (TUD) & Johan de Jong (MARIN)
- Peter van de Klugt (PK Marine)
- Erik Theunissen (Netherlands Defence Academy)

Topic: Unmanned Vessels

TUD and MARIN will present the project on unmanned vessel that they have set up in cooperation with the maritime schools in the Netherlands.

Then two renowned experts will address the human interface aspect and safe navigation respectively

Venue: RDM campus

13:30 Start of Mini-symposium

13.45 - 14.30 TUD & MARIN

14.30 - 14.45 Break

14.45 - 15.30 PK Marine

15.30 -16.15 NLDA

16.15 Closure of Mini-symposium

16:30 Annual General Meeting IMarEST Benelux branch

- Agenda to be provided

18.00 Closure

18.30 Annual Dinner

location to be announced