

RINA WESTERN BULLETIN

Technical Meeting Notice

Topic:

Design and Engineering of Wind Turbine Installation Vessels

When: Thursday, 21st October, 17:30 refreshments, 18:00 start

Where: Engineers Australia, 712 Murray St, West Perth

Cost: Free

Registration for face-to-face attendance is essential:

<https://www.eventbrite.com.au/e/rina-wa-design-and-engineering-of-wind-turbine-installation-vessels-tickets-187553456437>

For online attendance: [click here](#)

WA Section RINA Committee

Chairperson:	Piotr Sujkowski
Vice Chair:	Kenneth Goh
Secretary:	Nathan Chappell
Treasurer:	Cheslav Balash
Members:	Sammar Abbas Gino Parisella Ian Milne
Division	
Representative:	Yuriy Drobyshevski

Design and Engineering of Wind Turbine Installation Vessels

Kenneth Goh

Senior Mechanical Engineer and General Manager

Knud E. Hansen Australia

Abstract

KNUD E. HANSEN naval architects designed TIV MAYFLOWER RESOLUTION, the world's first Wind Turbine Installation Vessel (WTIV), back in 2002. WTIV's are characterised principally by their leg structures that enable these giant vessels to be jacked high above the water surface to provide a stable platform from which their cranes can undertake the delicate procedure of installing the wind turbines. Today there are dozens of WTIVs, mostly working in Northern Europe and Asia. These unique vessels have installed about 10,000 wind turbines globally, producing 40 GW of power.

As wind turbine technology has matured and developed, the turbines have grown ever larger, from 1-2MW in the early 2000's to the 12-15MW behemoths on the drawing board today. Similarly, the WTIVs have also had to evolve to undertake the installation of these massive new turbines in ever deeper waters. This presentation describes the evolution of the WTIV and the unique naval architectural and marine engineering challenges and solutions that are needed. With as many as a dozen Australian offshore wind farms in various stages of planning, this is a timely presentation to increase the understanding of these vessels which will soon be a common sight in our local waters.



About the Presenters

Ken Goh is a Senior Mechanical Engineer and the General Manager for Knud E. Hansen Australia. The company specialises in ship design of many types of highly customised vessels including jack-up vessels, research vessels, cruise ships, yachts, ferries, naval auxiliary vessels and icebreakers, notably the new Australian icebreaker RSV Nuyina. The company has offices in Denmark, UK, USA, Canada, Greece, Spain and Australia.

Ken has been involved in the design of a number of world-leading WTIV jack-up vessels. When not undertaking project work, he is researching renewable energies and autonomous operations for future shipping and advocating virtual reality technology for design and engineering of complex shipbuilding projects.

RINA WESTERN BULLETIN

RINA NEWS & Events

Australian Naval Architect

Sadly, ANA news was a little slow this past quarter, please start thinking and composing your news so we can again have a strong representation from the WA Section.

WA Naval Architects Recognitions

We would like to recognise and feature our sections naval architect's achievements in our western bulletin, if you have any memberships status change, accreditation, etc to include, please send them to wa@rina.org.uk.

YouTube



Here is the RINA YouTube channel where presentations from around the world are made available, click the following link to check out what has already been uploaded:

https://www.youtube.com/channel/UChb1sfHbWfQmG-iwpp_QGJg

Continuing Professional Development (CPD) Record

This is a reminder that all Fellows, Members and Associate-Members who are in or seeking active work must maintain and develop their competence and knowledge. This requirement is obligatory. The Institution reserves the right to monitor a member's CPD achievement through inspection of the CPD Record. More information on the CPD and recommendations on the format of the Record can be found on the website:

https://www.rina.org.uk/continuing_professional_development.html

Upcoming Technical Presentations

RINA WA is always looking for interesting technical presentations and people to present them. If you have a topic or know of someone who does, please feel free to contact the WA section and we can look at getting it added to our event calendar.

The current event program for the rest of 2021 is below:

Date	Topic #1 / Authors	Topic #2 / Author	Venue
9 Dec 2021	Innovative experiments for wave interactions with floating structures - Dr Wenhua Zhao and Dr Lifan Chen (UWA)	Wave Energy: History, Fundamentals, and Challenges - Dr Adi Kurniawan (UWA)	Engineers Australia

We can advertise your business here, Please contact at wa@rina.com.uk