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Western Joint Branch

Technical Lecture

Frigate Marine Integration De-Risking

Speaker: David Capper CEng MIET

Date: 18th January 2021
Time: Webinar begins at 19:00
Venue: This lecture will be delivered through IMarEST Webinar.

Summary:

In modern warships, the electrical power and propulsion system is fundamental to the ultimate capability of the vessel. The Type 26 Global Combat Ship will utilise an advanced CODLOG (Combined Diesel Electric or Gas Turbine) propulsion topology, the integration of which poses a number of engineering challenges and risks. The general philosophy towards de-risking for Type 26 GCS is one of left shifting project risk, whereby risks are considered and mitigated at the earliest opportunity in the development lifecycle.



Image: Courtesy of BAE Systems [<https://www.baesystems.com>]

The electrical power generation and distribution system for Type 26 is considered to pose one of the largest integration risks within the Power & Propulsion (P&P) System. There are electrical power and propulsion integration risks in areas such as quality of power supply and performance in dynamic scenarios. Another key risk is the physical, functional and control integration aspects of the P&P system, with each piece of equipment needing to be integrated with the wider P&P system and the overarching Power Management System.

This lecture will detail the various de-risking strategies that have been put in place to minimise P&P integration risk for Type 26, which involves the development and utilisation of computer based mathematical models and the construction of shore based marine system integration facilities.

Speaker:

David Capper MEng CEng MIET joined BAE Systems in 2013 as a Graduate, and is currently the Engineering Manager for the Type 26 Electrical Integration Test Facility Project within the Marine Systems team. Prior to this, he spent several years within in-service support teams for various classes of warship within Portsmouth Naval Base. His background is in electrical and electronic engineering, having completed a Master's degree with the University of Sheffield in 2012.



CPD Certificates will be sent out to the email address used to register to the Eventbrite.

Next event: Superyachts: Future Challenges

Date: Mon 15/02/2021 **Time:** Webinar to start at 19:00

Venue: Webinar hosted on IMarEST TV

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Webinar Joining Instructions



Our Webinars will be hosted through IMarEST TV live-streams, where you will be able to see and listen to the presenter and their slides and ask questions via Slido. The speaker will monitor questions raised during the lecture and answer as many of these as possible during the Q&A session.

As with our face-to-face lectures we will adopt the following format:

1. Introductions and Parish Notices from the WJB Chair and Lecture Sponsor
2. Lecture
3. Q&A
4. Details of Next Lecture and Close

Following the meeting, a recording will then be made available on IMarEST TV (for members) and, if permission is granted, on YouTube as well (for wider audiences).

A recording of last month's lecture is available to watch on [IMarEST TV](#).

To join the Webinar please sign up to the Eventbrite:

<https://www.eventbrite.co.uk/e/webinar-frigate-marine-integration-de-risking-tickets-135542945599>

Given the growth and increased interest of webinars by member and non-member audiences in 2020, the IMarEST Executive has brought in temporary changes to continue supporting growth and delivery of activities in 2021. For this lecture, non-members will be charged a nominal fee, but they can put this towards joining as an IMarEST member, and all attendees will be issued with a CPD certificate and receive exclusive access to the webinar on demand for 1 month.

Existing members can sign up for free as normal, including student members and all members of IMarEST and RINA who are affiliated with the Western Joint Branch. Please ensure you input your membership number when signing up on Eventbrite. For those in higher education, you can sign up as a student member of IMarEST for free.

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We will keep our page up to date with links to lectures, technical visits and online events. Hit the link above.

