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Western Joint Branch

Technical Lecture

The Fusion of Electrical Machines and Marine Power Systems using Mesh Networks and “Halo” Machines

Lead by: *Nick Smith from General Electric*

Date: Monday, 13th of January 2025

Time: Refreshments at 18:15, lecture starts at 18:45 – Please note this new time is a trial for this season

Venue: BRLSI, 16-18 Queen Square, BA1 2HN, Bath Building.

Organiser: Western Joint Branch RINA/IMarEST **Contact:** secretary.wjb@branches.imarest.org

Presenter:

Nick Smith has more than 35 years of experience with General Electric’s Marine Solutions and Power Conversion Business, designing commercial and military marine solutions for UK and US classes such as: Duke, Wave, Albion, Daring, QE, Zumwalt, Wasp, and Lewis & Clark; alongside many other worldwide ships.

Nick is currently the Executive for Systems Technology for GE Vernova Power Conversion.

Background:

A power system that you’ve never seen before. Nick will be providing insight into tomorrow’s technology, promising compelling advantages for future warships, operators and shipbuilders alike.

Nick will discuss how this rapidly emerging technology could eradicate the need for main switchboards and drives in future naval electrical power systems. By simplifying the electrical network, these “Halo” machines and mesh networks could dramatically reduce network footprint, size and weight, contributing to network availability and resilience.

These high-power density machines, combined with a potential step change in signatures, releases redundancy and resilience that has been trapped inside electrical machines for more than a century. Additionally, solid state mesh networks, without using separate switchboards facilitates the dynamic re-routing of electrical power offering, a potentially self-healing and autonomy-ready network.

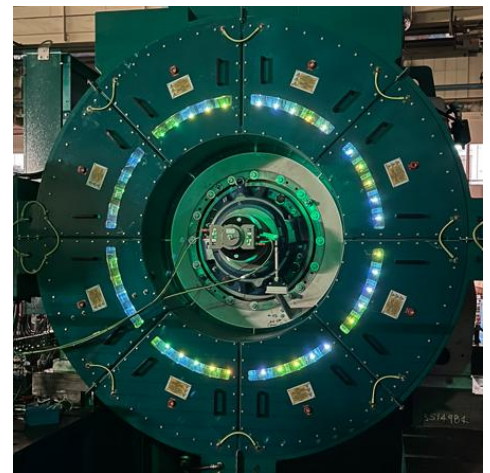


Image provided by General Electric.

Registration:

We will be running this as a Hybrid Event - [Click Here to Register](#)



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

Next event: How Ukraine has changed Naval conflict. Presented by Jonathan Bentham from the International Institute for Strategic Studies.

Date: 10th February 2025; Time: Refreshments at 18:15, lecture starts at 18:45.

Venue: UWE, Lecture Theatre 1N05, Building N, BS16 1QY.

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