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Western Joint Branch

Technical Lecture

Energy Efficient Commercial Shipping

Speaker: John Buckingham CEng FIMechE

Date: 16th March 2020
Time: Refreshments at 19:00, start at 19:25
Venue: Lecture Theatre 2.3, Building 5 West, University of Bath, BA2 7AY
Organiser: Western Joint Branch
Contact: secretary.wjb@branches.imarest.org

Summary:
The recent availability of regular parametric data on ship's machinery and behaviour has opened up new possibilities to develop and apply active mathematical models of ship propulsion systems.
The BMT-led VTAS project has combined large publically-available metocean datasets with onboard ship performance data to build the best possible models for specific vessels and the seagoing conditions experienced. These models enable the fuel-saving benefit of energy saving technologies (EST) to be assessed and thus support a business case for their introduction.
This lecture presents the potential benefits of hydro-dynamic, wind and thermal based technologies for a 61,000 dwt ship. An assessment of the benefits of wind-based technologies such as Flettner rotors, Wingsails and Turbosails is presented alongside those for an Organic Rankine Cycle-based technology.
These studies provide the foundation for supporting a wider assessment of feasibility and economic viability of an EST installation. Adoption of EST would support the IMO's target to reduce the carbon intensity of international shipping by at least 40% by 2030.

Image: UCL Energy Institute [https://www.ucl.ac.uk]

Speaker:
John Buckingham CEng FIMechE, is the Chief Mechanical Engineer of BMT Defence & Security UK Limited, Bath, UK. John was the Chief Technologist for the ETI-funded Vessel Technology Assessment System (VTAS) project which developed tools and methods for the analysis of ship propulsion systems. Since 1999, John has been involved in a range of studies to assess the utility of EST for the commercial and military marine.

CPD

Continuing Professional Development: Certificate of attendance

Attendee		Committee endorsement	
Signed:		Signed:	
Name:		Position:	

Next event: Catastrophic Weld Failures
Date: Mon 20/04/2020 **Time**: Refreshments at 19:00, start at 19:25
Venue: Lecture Theatre 1N05, Building N, University of the West of England, BS16 1QY

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