#### The Royal Institution of Naval Architects

## **Energy Efficient Ships**

4th November 2015, Rotterdam, Netherlands





### In partnership with the Europort Exhibition, Rotterdam Call for Papers

Shipping is one of the most efficient means of transportation for bulk commodities. However, as part of the global effort to reduce greenhouse gases (GHG) the industry must design and operate lower emissions-higher energy efficient ships. IMO introduced mandatory standards on the energy efficiency (EEDI) of the majority of new built vessels and further regulations are expected to be developed for ship types not already covered. The Energy Efficiency Design Index and the Ship Energy Efficiency Management Plan (SEEMP) has been adopted for existing ships in an attempt to monitor (Energy Efficiency Operational Indicators -EEOI) and improve their efficiency.



There is considerable potential for reducing emissions in the shipping sector. A lot of the technology is already available; slow streaming, improved voyage planning, trim optimisation, hull coating and propeller cleaning. There are also a plethora of technologies available for retrofitting on existing vessels; main engine tuning, propeller and rudder upgrades, fin and duct energy saving devices, to name a few. Not all solutions can be applied to all types of ships, and individual saving measures cannot simply be added together. Current uptake of many of these technologies is limited, not only due to the cost of implementation and a lack of knowledge regarding their effectiveness.

RINA invites papers from naval architects, class societies, operators, researchers, and builders on all Ship Efficiency related topics including the following:



- Operational strategies to improve ship efficiency
- · Retrofit technologies
- Designing energy efficient ships
- · Performance verification, monitoring and management
- Full scale measurements and demonstrations
- Radical energy saving strategies and devices
- Enforcement
- Impact of compliance

Selected papers may be published in the Transactions of the Royal Institution of Naval Architects

# exhibition for maritime technology 3-6 November 2015 Ahoy Rotterdam

#### www.rina.org.uk/energy\_efficient\_ship

	I would like to offer a paper and attach a synopsis of no more than 250 words
	Please submit your abstract before 10th May 2015
	I wish to receive details on exhibition space and sponsorship opportunities
	I would like to receive a full programme brochure and registration form
Name	Position:
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