



Smart Ships

26-27 January 2016, London, UK



First Notice & Call for Papers

With the rapid increase in computing power and communication technology, what will be the full impact of the digital age on ship design? Is the shipping industry going to benefit from the “big data” revolution? What are the real technical possibilities, limits and potential benefits for the shipping industry?

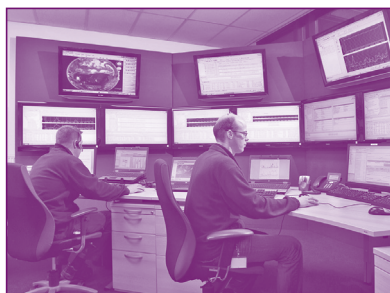
Vessels are becoming ever more complex, fitted with an increasing range of sensors and monitoring equipment. While this is massively increasing the amount of data available can all this be turned into a truly integrated real time monitoring and control system? Can we develop real time ship performance models; schedule vessels to arrive in port just-in-time for berth availability while minimising fuel consumption during the voyage; quantify actual effect of hull or propeller fouling on fuel consumption; provide operators with advance warning on potential system or component failures and order the necessary replacement parts to be delivered at the appropriate time and place; provide real time emergency decision making support?

Not only must the data be collected, processed and analysed but it has to be presented in a way that will be both meaningful and helpful to the end users. Initially, these types of systems may be used to provide the crew and shore based staff with better decision support systems, but will vessels ever be remotely operated from onshore control centres or even become truly autonomous? It's technically possible to design and build such vessels and there would be significant potential weight and fuel savings to be made on an unmanned ship but what are the safety implications?

To further investigate the potential of smart and autonomous vessels papers are invited from designers, operators, researchers, builders, class societies and regulatory bodies, on all related topics, including:

- Data collection (sensors & monitors)
- Digital interfaces & standards
- Ship performance modelling
- Live hull structural integrity information
- Software validation & system reliability
- Data processing, display and the user interface
- Design of unmanned vessel (remote operated & autonomous)
- Safety & regulations

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



www.rina.org.uk/Smart_Ships

- ☐ I would like to offer a paper and attach a synopsis of no more than 250 words

Please submit your abstract before 7th September 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:
Company:	
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