

The Royal Institution of Naval Architects

# WARSHIP 2014

## Naval Submarines & UUV's

18-19 June 2014, Bath, UK



### Call for Papers



Submarines are among the most complex of engineering products, comparable in complexity with aerospace projects such as the space shuttle. To design, manufacture and support them in service requires a sophisticated industrial base and the willingness to incur the long term cost of ownership. The recent entry into service of the Royal Navy's Astute Class demonstrates the advancements made in submarine technology. Operational limits are being challenged, as the available technology becomes less of a restraint.



Warship 2014 will also include the rapidly growing new field of military Unmanned Underwater Vehicles (UUVs). The reliance on Remotely Operated, and Remotely Towed, underwater Vehicles (ROV's & ROTV's) in survey activities has slowly diminished in modern navies. The development of much more sophisticated autonomous vehicles (AOV) has led to their integration into a much wider network of both manned and unmanned vessels. As on land, UUV's today are becoming a vital part of the current focus on 'network-orientated' warfare.

To further investigate this aspect of the industry, RINA invites papers on all aspects of the design, construction and operation of Naval Submarines and UUVs, including the following topics:



- Future Submarine requirements and their strategic context.
- Affordable, available and adaptive submarines.
- Management of submarine design information and maintenance of design intent.
- Design and construction
- UUV specific: construction, design, operation
- Novel materials; their underwater application.
- External installation of weapon delivery systems, towed sensors and communications systems.
- Submarine power, propulsion systems and signature management.
- Operating unmanned underwater vehicles from submarines.
- Submarine escape and rescue.
- Assuring submarine safety.
- The environmental impact of submarines.

[www.rina.org.uk/warship-2014](http://www.rina.org.uk/warship-2014)

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