



**The Royal Institution of Naval Architects**  
***Warship 2016: Advanced Technologies in***  
***Naval Design, Construction and Operation***  
 15-16 June 2016, Bath, UK

Supported by



Wednesday 15 <sup>h</sup> June		
08.30-09.00	Coffee and Registration.	
09.00-09.05	Welcome Address- <i>Trevor Blakeley, The Royal Institution of Naval Architects</i>	Session 1
09.05-09.10	Sponsor Presentation - <i>BMT Defence Services, UK</i>	
09.10-09.45	KEYNOTE- <i>Chris Broadbent, Senior Principal Naval Architect, DTSL, UK</i>	
09.45-10.20	ONE SIZE FITS ALL? OR DO DIFFERENT WARSHIP DESIGNS REQUIRE DIFFERENT SHIP DESIGN METHODS? <i>David Andrews, University College London, London, UK</i>	
10.20-10.55	FROM PERFORMANCE REQUIREMENTS TO VIABLE TECHNICAL SOLUTIONS - NAVAL ARCHITECT'S REALITY CHECK IN THE CONCEPTUAL DESIGN PHASE <i>Roope Kotiranta, R Kotiranta, Surma Ltd, Finland</i>	
10.55-11.25	Coffee	
11.25-12.00	WHY IS NAVAL DESIGN DECISION-MAKING SO DIFFICULT? <i>Austin Kana, Delft University of Technology, the Netherlands</i> <i>C P F Shields and D J Singer, University of Michigan, USA</i>	
12.00-12.35	INITIAL LESSONS FROM APPLICATION OF VIRTUAL REALITY TO WARSHIP DESIGN <i>N Bradbeer, University College London</i>	
12.35-13.35	Lunch	
13.35-14.10	COMBAT SAFETY AND SURVIVABILITY: USING SURVIVABILITY TECHNIQUES TO ASSESS CREW SAFETY DURING COMBAT <i>David Manley FRINA, RCNC, UK Ministry of Defence, UK</i>	Session 2
14.10-14.45	ADVANCED MARITIME OPERATIONS UNDER NETWORK-CENTRIC ORGANIZATIONS <i>P S Sapaty, Institute of Mathematical Machines and Systems, National Academy of Sciences, Ukraine</i>	
14.45-15.20	HARNESS: DEVELOPMENT OF A MULTIFUNCTIONAL PROTECTIVE SHIP BULKHEAD <i>Rogier van der Wal, TNO, Netherlands</i>	
15.20-15.50	Coffee	
15.50-16.25	ALTERNATIVE ENERGY SYSTEMS FOR NAVAL VESSELS <i>Christian von Oldershausen, U Vogler and J Lampe, DNV GL, Germany</i>	
16.25-17.00	EFFECT OF GAS TURBINE INTAKE LOCATION ON THE SMOKE INGRESS PROBLEM IN NAVAL SHIPS <i>R. Vijayakumar, Indian Institute of Technology Madras, India</i> <i>S N Singh, and V Seshadri, Indian Institute of Technology Delhi, India</i>	
17.35-	General Discussion & Evening Drinks Reception	



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Thursday 16 <sup>th</sup> June		Session 3
08.30-09.00	Coffee and Registration.	
09.00-09.35	THE POTENTIAL USE OF ENERGY SAVING TECHNOLOGIES IN FUTURE PATROL COMBATANTS <i>Dr. Rachel J. Pawling, S Suárez de la Fuente, D J Andrews, Marine Research Group, UCL, London, UK</i>	
09.35-10.10	A SYSTEMATIC COMPARISON OF THE INFLUENCE OF THE HULL VANE, INTERCEPTORS, TRIM WEDGES, AND BALLASTING ON THE PERFORMANCE OF THE 50M AMECRC SERIES #13 PATROL VESSEL <i>Kasper Uithof, N Hagemeister, B Bouckaert, P G van Oossanen, and M Moerke, Hull Vane B.V., van Oossanen Naval Architecture, and van Oossanen Fluid Dynamics, Netherlands</i>	
10.10-10.45	STUDY OF DYNAMIC FLOW EFFECTS DUE TO SHIP AIR WAKE AND ROTOR DOWNWASH INTERACTION ON WARSHIP HELO-DECKS <i>Lt Cdr Ishaq S Makkar, SN Singh and SS Sinha, Department of Applied Mechanics, Indian Institute of Technology Delhi, India</i> <i>R Vijayakumar, Department of Ocean Engineering, Indian Institute of Technology Madras, India</i>	
10.45-11.15	Coffee	
11.15-11.50	PROGRESS IN QUIESCENT PERIOD PREDICTION <i>Michael Belmont and Jaqueline Christmas, University of Exeter, UK</i> <i>B Ferrier, Hoffman Engineering Corp, USA</i> <i>JM Duncan and J Duncan, DE&amp;S Maritime Combat Systems, UK</i>	Session 4
11.50-12.25	HELICOPTER - SHIP MOTION INTERFACE PREDICTION USING SIMULATION TECHNOLOGY AND TRIAL RESULTS FROM A DEDICATED ROYAL NAVY SEA TRIAL <i>Dr. Bernard Ferrier, Hoffman Engineering Corporation, Dynamic Interface Laboratory, USA</i> <i>Dr. M. R. Belmont, Exeter University, UK</i> <i>Dr. J Duncan, Mr. A Curnow, Mr. J. Duncan, Defence Equipment &amp; Support, MOD, UK</i>	
12.25-13.00	DECK INTERFACE LIMIT PROCEDURES DESIGNED FOR FIRE SCOUT MQ-8C EMBARKED AVIATION <i>Dr. Bernard Ferrier, Dr. Robert Ernst, Ajay Sehgal, Hoffman Engineering, USA</i>	
13.00-14.00	Lunch	
14.00-14.35	AN INITIAL INVESTIGATION OF SUBMARINE TORPEDO EVASION WITH TOP SPEED <i>G Hartle, MoD, UK &amp; N Bradbeer, UCL, UK</i>	
14.35-15.10	LIFE CYCLE MANAGEMENT MATRIX - OPTIMISING LIFE CYCLE MAINTENANCE OF NAVAL SHIPS <i>Arshad TK, Abu Dhabi Ship Building, UAE</i>	
15.10-15.40	Coffee	
15.40-16.15	A NEW APPROACH TO MANAGING THE ACOUSTIC SIGNATURE RISK IN WARSHIP DESIGN <i>Kevin Hamson, Frazer-Nash, UK</i>	Session 4
16.15-16.50	THE MIGHT OF THE LESSER-THOUGHT-OF WATERTIGHT AND WEATHERTIGHT AND GAS-TIGHT NBCW SEALS IN WARFARE: WHY THEIR IMPROVED MAINTENANCE TODAY, AND INTRODUCING CONTINUOUS MONITORING IN THE FUTURE, CAN IMPROVE SAFETY ON WARSHIPS <i>Carl Hunter, J. Globisz, C.S.P. Hunter, G.H.C. Hunter, C. Kay, F. Milner, M. B. Radhakrishna, A. Saw, S. Watson, Coltraco Ultrasonics, UK</i>	
16.50-	General Discussion	