

WORLD MARITIME

TECHNOLOGY CONFERENCE

London, 6 - 10 March 2006



WMTC 2006

FINAL PROGRAMME

ORGANISED BY

IMAREST

The Institute of Marine Engineering, Science and
Technology is the international membership body
and learned society for marine professionals





Welcome to WMTC 2006

I know that every member of The Institute of Marine Engineering, Science and Technology would like me to take this opportunity to welcome all the delegates from all over the globe to the World Maritime Technology Conference in London. It is a great honour for the Institute to be able to host this very important conference.

The sea has played a most significant part in the economic development of the world, and it still carries the bulk of international trade. Rapidly developing technology during the last century has enabled the maritime industries to become more effective and far more efficient, and this process continues.

I hope that this conference will help the world's maritime industries to become even more effective, by giving scientists and engineers the chance to compare notes, and to discuss the direction of future developments. I have no doubt that delegates will return home feeling encouraged and inspired by their experience here, and having made many new friends and colleagues.

His Royal Highness The Prince Philip, Duke of Edinburgh KG KT OM GBE



WMTC TECHNICAL PROGRAMME

MONDAY 6 MARCH 2006

1330 hours

Registration and tea

1500 hours

Welcome and introduction to WMTC 2006



Maurice Storey CB
President, The Institute of Marine Engineering,
Science and Technology (IMarEST)

WMTC PLENARY SESSION

Maritime innovation – delivering global solutions



Commissioner Joe Borg
Directorate-General for Fisheries and Maritime Affairs, European Commission



Choo Chiau Beng
Chairman and Chief Executive Officer, Keppel Offshore & Marine



Admiral Robert E Kramek
President and Chief Operating Officer, American Bureau of Shipping



Vice Admiral Conrad C Lautenbacher Jr - US Navy (Ret)
Undersecretary of Commerce for Oceans and Atmosphere and NOAA Administrator



Efthimios Mitropoulos
Secretary-General, International Maritime Organization



Chaired by:

Frank B Mungo
Past President, The Institute of Marine Engineering, Science and Technology (IMarEST)
Director Marketing Naval, Rolls-Royce plc

1800 hours

Welcome reception sponsored by  **inmarsat**

WMTC TECHNICAL PROGRAMME

(SUBJECT TO AMENDMENT)

TUESDAY 7 MARCH 2006 AM

TIME	COMMERCIAL SHIPPING sponsored by Lloyd's Register	NAVAL ENGINEERING – INEC 2006	
	SHIP DESIGN	PLENARY SESSION	
0900 – 0905	Welcome and introduction Conference Stream Chairman	Welcome and introduction Conference Stream Chairman	
0905 – 0930	Keynote Address P A Embiricos, Embiricos Shipbrokers Ltd, UK	Keynote Address Admiral Sir Jonathon Band KCB ADC, First Sea Lord, UK	
0930 – 0955	Novel propulsion machinery solutions for ferries O Levander, Wärtsilä Corporation, Finland	Supporting the Victoria Class SSK: a naval perspective Cdr M Hallé, Lt Cdr D Hughes, Canadian Forces, Canada	
0955 – 1020	Innovative propulsion plants for large container ships to meet the steadily increasing power demand and record high fuel prices K Tigges, Siemens AG, Germany; Prof Dr C Gallin, Gallin Marine Consultants, Germany	Recharged Dukes - IEP for new build T23s Lt Cdr I A Jackson RN, Cdr G F Hill RN, Ministry of Defence, UK	
1020 – 1045	Power station on the poop deck K Daffey, S Loddick, Rolls-Royce, UK	Pourquoi pas? research vessel - silence is golden L Dechambenoit, P Viclaz, E Leleu, J P Chaignot, APC Power Conversion SAS, France	
1045 – 1100	Discussion		
1100 – 1130	Coffee		
	SHIP DESIGN (contd)	PARALLEL A – PROPULSION	PARALLEL B – GLOBAL SUPPORT SYSTEMS
1130 – 1155	High speed video and hull pressure synchronisation to improve propeller design Ing G Hagesteijn, MARIN, The Netherlands	Electric Power Supply Quality concepts for the All Electric Ship (AES) Prof Dr Ing I K Hatzilau, Hellenic Naval Academy; Dr J Prousalidis, National Technical University of Athens; Dr E Styvaktakis, Hellenic Transmission System Operator; Dr F Kanellos; Cdr S Perros, Hellenic Navy; E Sofras, National Technical University of Greece; Greece	Future ship concepts for repair and maintenance at sea A Kimber, BMT Defence Services Limited, UK
1155 – 1220	IMO working group conceives regulations for the protection of fuel tanks H Bruhns, Germanischer Lloyd, Germany	HTS propulsion machines - results and future Dr W Nick, J Frauenhofer, W Rzadki, R Hartig, H-W Neumüller, Dr B Wacker, Siemens AG, Germany	Contractor Logistic Support for the Royal Navy Lt J Spencer RN, Ministry of Defence, UK
1220 – 1245	On the assessment of parametric roll in a random sea Dr J J Jensen, DTU, Denmark; Dr A S Olsen, FORCE Technology, Denmark	Makin Island auxiliary propulsion system: incorporation of electric propulsion L Dusang, NGSS, USA; R Devenney, ALSTOM, USA; A Boughner, NAVSEA, USA	Marine Gas Turbine Data Acquisition System D Dobinson, Rolls-Royce Marine Electrical Systems, UK
1245 – 1300	Discussion		
1300 – 1430	Lunch sponsored by UK Hydrographic Office		
1330 – 1430	The innovation hour		

EXHIBITION OPEN: 0800 - 1800 HOURS

OFFSHORE OIL AND GAS	COAST AND OCEAN MAPPING	REEFS OF THE WORLD	TIME
FLOATING PRODUCTION STANDARDS		CLIMATE CHANGE AND CORAL REEFS	
Welcome and introduction Conference Stream Chairman		Welcome and introduction Conference Stream Chairman	0900 – 0905
Keynote Address J Baxter, BP, UK		Keynote Address - Finding the Balance in Coral Reef Conservation: Lessons from the Global Report and the Indian Ocean Tsunami Dr C Wilkinson, Global Coral Reef Monitoring Network, Australia	0905 – 0930
Ship versus offshore approach to designing FPSOs Dr E Valenzuela, Dr J F Wu, Dr T Liu, ABS, USA	0930 – 0940 Welcome and introduction Conference Stream Chairman	Predictions of climate change in the tropical oceans, and how that should shape our conservation efforts Dr J Kleypas, National Center for Atmospheric Research, USA	0930 – 0955
Classification of floating offshore installations using a risk-based process S McFarland, Lloyd's Register, UK	0940 – 1010 Keynote Address Safeguarding Our Seas - Marine Stewardship in the UK and proposed marine legislation J Roberts, Defra, UK	Climate change and coral reefs: the near future Dr C Sheppard, R Rioja-Nieto, University of Warwick, UK	0955 – 1020
Construction technologies for offshore production systems Prof Y S Choo, National University of Singapore, Singapore	1010 – 1035 The technical determination of maritime space. What are the challenges? C Carleton, UK Hydrographic Office, UK	Can 'chlorophyll-like' compounds provide an early warning system for corals at risk of bleaching? Dr K McDougall, Dr S Gibb, Dr K Boyd, Environmental Research Institute, UHI Millennium Institute, UK; Prof B Brown, University of Newcastle, UK	1020 – 1045
Discussion			1045 – 1100
Coffee			1100 – 1130
INSTALLATION		FOOD - REEFS AS A NATURAL RESOURCE	
Deepwater pipelay and construction vessel Dr S N Smith, Dr J R MacGregor, Subsea 7 Limited, UK	Effective surveying in the coastal zone and beyond P Hobson, Admiralty Coastal Surveys AB, UK	Achieving sustainability in East African coral reefs Dr T McClanahan, Wildlife Conservation Society, USA	1130 – 1155
Installation of deepwater risers M Burgess, F Lim, 2H Offshore Engineering Limited, UK	High resolution repeat bathymetric surveys using AUVs G D'Spain, D Chadwell, R Zimmerman, Scripps Institution of Oceanography, USA; G Openshaw, BP, USA	Large-scale ecology and management of coral reefs Prof N Polunin, University of Newcastle upon Tyne, UK	1155 – 1220
Riser solutions for ultra deep water T Henderson, Acergy, USA; V Alliot, Acergy, France; Dr I Frazer, Acergy, UK	Hydrographic survey verification at the UK Hydrographic Office C Howlett, UK Hydrographic Office, UK	Trends in climate change, coastal governance, coral reef ecology and socio-economic variation in the Seychelles Dr S Stead, T Daw, N Graham, T S Gray, Prof N Polunin, University of Newcastle upon Tyne, UK; J Robinson, Seychelles Fishing Authority, Seychelles; Dr T McClannahan, WCS, Kenya	1220 – 1245
Discussion			1245 – 1300
Lunch sponsored by UK Hydrographic Office			1300 – 1430
The innovation hour			1330 – 1430

WMTC TECHNICAL PROGRAMME

(SUBJECT TO AMENDMENT)

TUESDAY 7 MARCH 2006 PM

TIME	COMMERCIAL SHIPPING sponsored by Lloyd's Register	NAVAL ENGINEERING – INEC 2006	
	LNG	PARALLEL C – PROPULSION	PARALLEL D – MODELLING AND SIMULATION
1430 – 1455	First principle based analysis procedure for strength assessment of membrane-type LNG containment system due to sloshing impact Dr Y Shin, J Kim, B Wang, American Bureau of Shipping, USA	Variable frequency drives and new technology motors in the application to ships' propulsion systems M J V Wimshurst, Siemens A&D, UK	Machinery control system design using dynamic modelling and simulation - lessons learned M Routhier, S Horning, GasTOPS Ltd, Canada
1455 – 1520	Strength of membrane type LNG cargo containment system under sloshing impact Prof J M Lee, Prof J K Paik, Prof M H Kim, J W Yoon, Pusan National University, Korea; I H Choe, Dr W S Kim, B J Noh, Hyundai Heavy Industries Co Ltd, Korea	Design considerations of modern platform management systems for naval vessels to enhance data management and system availability A Stefani, L-3 Communications Italy srl - Marine Systems, Italy	Use of simulation to support the verification of interlocking, control and protection functions associated with mechanical handling systems Dr P Rottier, Dr G Walker, The MathWorks Ltd, UK; I Lewis, P D Bate, J Barratt, Devonport Royal Dockyard Ltd, UK
1520 – 1545	Discussion	Non-linear aspects of propeller pitch control A Wesselink, Wärtsilä Propulsion Netherlands BV, The Netherlands; Prof D Stapersma, Royal Netherlands Naval College, The Netherlands; Lt Cdr D van den Bosch, Royal Netherlands Navy, The Netherlands; Ir P Teerhuis, Delft University of Technology, The Netherlands	Roll reduction of ships using anti-roll n-tanks R Moaleji, Dr A Greig, University College London, UK
1545 – 1600	Discussion		
1600 – 1630	Tea		
	PROPELLER, HULL AND MACHINERY INTERACTION	PARALLEL C – PROPULSION (contd)	PARALLEL D – MODELLING AND SIMULATION (contd)
1630 – 1655	Determination of hydrodynamic propeller forces and moments from measured deformations of line shafting C Andreau, Tecnicas/Bureau Veritas Group, France; R Ville, Bureau Veritas, France	Update on solution to RN gas turbine sea water lubricating oil cooler failures when caused by Sulphate Reducing Bacteria (SRB) R Bolwell, Ministry of Defence, UK	CFD analysis of fog cooling - a power booster for ship propulsion gas turbines Lt Cdr S Pandey, Capt (Dr) R K Rana, Indian Navy, India
1655 – 1720	An enhanced method for propulsion shafting alignment taking into account variation in bearing offsets while in service Dr Y Song, D Shiraki, H Shiihara, Y Nagayama, Nippon Kaiji Kyokai (ClassNK), Japan	High performance diesel outboards: Development challenges and strategies Lt Cdr D Riis, Ministry of Defence, UK	Modular modelling for HVAC design evaluation Dr H T Grimmelius, Delft University of Technology, The Netherlands; R Ruissen, Heerema Marine Contractors, The Netherlands; B Bouthoorn, Gusto Engineering, The Netherlands; M A M van Holsteijn, ImTech Marine & Offshore, The Netherlands
1720 – 1745	Application of the strain gauge alignment technique on slow-speed diesel propulsion shafting installations B Cowper, LamaLo Technology Inc, Canada; D Rickman, VTHalter Marine Inc, USA; D Sahr, Aker Philadelphia Shipyard, USA	The application of gas turbine engines to small craft J Buckingham, BMT Defence Services Ltd, UK; Lt Cdr N McCallum RN, Lt I Timbrell RN, Ministry of Defence, UK	A value focused approach to ship design synthesis, analysis and selection S S Maraju, S Syamsundar, M Delorme, Dr R Datla, Dr M Pennotti, Dr M Bruno, Stevens Institute of Technology, USA; S Vasudevan, University College London, UK
1745 – 1800	Discussion		

OFFSHORE OIL AND GAS	COAST AND OCEAN MAPPING	REEFS OF THE WORLD	TIME
DESIGN AND CONSTRUCTION		THREATS, IMPACTS, MANAGEMENT OF CORAL REEFS	
Permanent mooring system integrity Dr A McLeary, Lloyd's Register EMEA, UK	A multipurpose platform for Electronic Navigational Chart service Dr S-J Chang, National Taiwan Ocean University, Taiwan	The impact of the December 26th Tsunami on the coral reefs of Mu Ko Surin Marine National Park, Thailand J Comley, S O'Farrell, S Hamylton, C Ingwersen, R Walker, Coral Cay Conservation, UK	1430 – 1455
Lessons learned from riser tower fabrication and installation V Alliot, Acergy, France; T Henderson, Acergy, USA; Dr I Frazer, Acergy, UK	Digital marine mapping for the shipment of aircraft wings Dr M Osborne, C Levey, M Jonas, SeaZone Solutions Limited, UK	The impact of hurricanes and severe storms on coral growth Prof M J Crabbe, University of Luton, UK	1455 – 1520
FRP composites offshore - moving over the barriers Dr R Looyeh, Chevron Texaco, UK	3D Hydrographic data presented by means of the chromo stereoscopic technique R Ostnes, Aalesund University College, Norway; Dr V Abbott, Dr S Lavender, University of Plymouth, UK	Discussion	1520 – 1545
1545 - 1610 Semisub column ultimate strength under compressive loading TP Estefen, SF Estefen, COPPE/UFRJ, Brazil	Discussion		1545 – 1600
	Tea	Tea	1600 – 1630
1610 - 1630 Discussion and close	Sampling below the seabed of planet ocean - the application of innovative, remotely operated, coring systems A Skinner, British Geological Survey, UK		1630 – 1655
	Seabed acoustic characterisation using wind noise M Donnelly, Systems Engineering & Assessment Ltd, UK		1655 – 1720
	Design of an unmanned surface vehicle for environmental monitoring W Naeem, T Xu, Dr J Chudley, R Sutton, University of Plymouth, UK		1720 – 1745
	Discussion and close		1745 – 1800

WMTC TECHNICAL PROGRAMME

(SUBJECT TO AMENDMENT)

WEDNESDAY 8 MARCH 2006 AM

TIME	MARINE ENGINEERING SYSTEMS – ICMES 2006	COMMERCIAL SHIPPING sponsored by Lloyd's Register	NAVAL ENGINEERING – INEC 2006	UNDERWATER VEHICLES – AUTUV 2006 in association with the Royal Naval School of Undersea Warfare
	BALLAST	HUMAN FACTORS	NAVAL INNOVATION	
0900 – 0905	Welcome and introduction Conference Stream Chairman			Welcome and introduction Conference Stream Chairman
0905 – 0930	New IMO Convention on ships' ballast water management: need for creative engineering and global partnerships Dr J Matheickal, GEF-UNDP-IMO GloBallast Programme; Capt D Pughiuc, International Maritime Organization			Keynote Address An AUV taxonomy for the 21st century G Openshaw, L Billingham
0930 – 0955	Computer aided ballast management K Reynolds, The Gloston Associates Inc, USA; R Tagg, Herbert Software Solutions Inc, USA	Non-technical skills: the vital ingredient in world maritime technology? Prof M Barnett, C Pekcan, Southampton Solent University, UK; D Gatfield, Warsash Maritime Centre, UK	Powering the weapon systems: options arising from ESTD D Mattick, ALSTOM Power Conversion Ltd, UK; P Deverill, Ministry of Defence, UK	AUTOTRACKER Autonomous Undersea Vehicle Inspection Sea Trials 2006 P Patrón, J Evans, J Brydon, J Jamieson, Subsea 7, UK
0955 – 1020	Modelling the removal of contaminated ballast water Dr A Greig, Dr I Eames, University College London, UK; Dr J Tang, Dr Y Li, University of Hong Kong, PR of China	SeaSense - Real-Time Onboard Decision Support J K Nielsen, N H Pedersen, Dr J Michelsen, FORCE Technology, Denmark; Dr U D Nielsen, J Baatrup, Prof J J Jensen, DTU, Denmark; E S Petersen, Lyngsø Marine A/S, Denmark	Dynamic simulation of a fuel cell with reformer Lt Cdr B van Oosten, I Barendrecht, Royal Netherlands Navy, The Netherlands; Prof D Stapersma, Royal Netherlands Naval College, The Netherlands; Prof H Klein Woud, Delft University of Technology, The Netherlands	Military operations with autonomous underwater vehicles P E Hagen, N Storkersen, Norway
1020 – 1045	Electrolytic system for treatment of ballast water R Matousek, D W Hill, Severn Trent DeNora, USA; Prof R P Herwig, J R Cordell, University of Washington, USA	Design for the human factor; the move to goal based rules Prof B Sherwood Jones, Dr J Earthy, Lloyd's Register, UK	Naval power and propulsion system: the intricacies of integration A Crane, R Maltby, Dr M Benatmane, ALSTOM Power Conversion Ltd, UK; Capt J Newell RN, Ministry of Defence, UK	Recovery operations with autonomous underwater vehicles Thetis and ROVs in Greece Cdr H N (rt) S Volonakis, Hellenic Navy, Greece; Prof S Fotopoulos, M Kallergis, Monousakis, N Spyridakos, Centre for Marine Research, Greece
1045 – 1100	Discussion			
1100 – 1130	Coffee			
	BALLAST (contd)	HUMAN FACTORS (contd)	NAVAL INNOVATION (contd)	
1130 – 1155	Shipboard demonstration of chlorine dioxide on a Swedish flagged Ro/Ro containership and US flagged ITB bulker T Perlich, Ecochlor Inc, USA	Safety at sea - applying Pareto analysis R Ziarati, TUDEV, Turkey	Naval marine engineering: the challenges and opportunities - a personal perspective Capt J Newell RN, Cdr G Little RN, Ministry of Defence, UK	Autonomous hull-related operations marine vessels and structures F Hover, Massachusetts Institute of Technology, USA; J Vaganay, Bluefin Robotics, USA
1155 – 1220	Ballast water treatment technology: the challenges ahead Dr A B Pandit, University of Mumbai, India; Dr V V Ranade, National Chemical Laboratory, India; Dr A C Anil, S S Sawant, D Ilangovan, R Madhan, National Institute of Oceanography, India; A Chatterjee, Government of India, India	A regulatory approach to the human element Capt P Townsend, K Tatman, A Sillitoe, Maritime and Coastguard Agency, UK	Naval or commercial approach to propulsion sea trial risk - how far do you push the boat out? N Smith, B Salter, ALSTOM Power Conversion Ltd, UK; D Gardner, Ministry of Defence, UK; L Sears, THALES NAVAL, UK	A smooth simultaneous operations mapping solution to improve situational awareness, mission planning for AUVs P Patrón, Dr I Tena Ruiz, Spain
1220 – 1245	Practical aspects of ballast water treatment efficacy and compliance testing Dr D Wright, University of Maryland, USA	The role of the marine engineer in litigation M Allen, Curtis Davis Garrard, UK	Implications for a Navy from the transformation of naval procurement and the use of a classification society R Simpson, Lloyd's Register, UK	Biomimetic underwater vehicles inspection of coastal waters Dr N Kato, Dr H Suzuki, Japan
1245 – 1300	Discussion			
1300 – 1430	Lunch - Sponsored by ABS			
1330 – 1430	The innovation hour			

EXHIBITION OPEN: 0800 - 1800 HOURS

TOPICS – Association with SUT	MARINE RENEWABLE ENERGY – MAREC 2006	OPERATIONAL OCEANOGRAPHY	REEFS OF THE WORLD	TIME
	WAVE	INITIATIVES AND REGULATORY FRAMEWORKS	CORAL REEF RESTORATION AND REHABILITATION	
Introduction Chairman	Welcome and introduction Conference Stream Chairman			0900 – 0905
Oil and gas operations Chairman, BP, UK	Keynote Address Sir David King ScD, FRS Chief Scientific Adviser to HM Government and Head of the Office of Science and Technology	0925 – 0930 Welcome and introduction Conference Stream Chairman		0905 – 0930
Offshore Pipeline Chairman, Seabyte Ltd, UK;	A road-map for marine renewable energy research in the UK Dr M Mueller, Dr R Wallace, University of Edinburgh, UK	The MERSEA Project: Development of a European system for operational monitoring and forecasting Dr Y Desaubies, IFREMER, France		0930 – 0955
Work with the HUGIN AUVs Chairman, FFI, Norway	Ocean energy development and evaluation protocol B Holmes, HMRC, Ireland	BLUElink: From global to coastal forecasting Dr D Griffin, CSIRO Marine and Atmospheric Research, Australia	Scylla: Europe's first artificial reef M J Leece, National Marine Aquarium, UK	0955 – 1020
Work with the submersible Chairman Dr C Smith, T K Katsaros, A Mallios, L Stasinou, V Stasinou, Hellenic Republic, Greece	Environment impact assessment of wave energy systems Dr L Duckers, Coventry University, UK	Operational coastal ocean forecasting in the Eastern Mediterranean Dr G Zodiatis, Prof R Lardner, Dr D Hayes, Prof G Georgiou, University of Cyprus, Cyprus; Dr S Sofianos, Dr N Skliris, Prof A Lascaratos, University of Athens, Greece	Cold-water coral reefs - How to conserve the remote and unknown? Dr S Hain, E Corcoran, UNEP, UK; Dr J-H Fosså, IMR, Norway; Prof A Freiwald, University Erlangen-Nürnberg, Germany	1020 – 1045
Discussion				1045 – 1100
Coffee				1100 – 1130
	WAVE (contd)	OCEAN OBSERVING SYSTEMS	THREATS, IMPACTS, MANAGEMENT OF CORAL REEFS (contd)	
Autonomous survey under Chairman Institute of Technology, Robotics Corporation,	Availability and estimation of marine renewable energy resources Dr J Grimwade, NaREC, UK	Argo - a revolution in observing the oceans' interior Dr W J Gould, National Oceanography Centre, Southampton, UK	Placing the threat of climate change in context: Caribbean coral reefs as a case study Dr I Côte, Simon Fraser University, Canada	1130 – 1155
Wave localisation and Chairman Heriot-Watt University,	Wave energy research, development and demonstration at Oregon State University Dr A Wallace, Dr A von Jouanne, K Rhinefrank, E Agamloh, D Eveland, Oregon State University, USA	Regional and global oceanography using ships of opportunity Dr D Hydes, Dr B Kelly-Gerrey, S Hartman, C Barger, M Hartman, J Campbell, M Edwards, National Oceanography Centre, Southampton, UK	Assessment of the extent of bleaching and recovery rates of corals in Diego Suarez Bay, Northern Madagascar N K Browne, H Markham, Society for Environmental Exploration, UK	1155 – 1220
Autonomous vehicle for Chairman Osaka University, Japan	Importance of mooring line damping for WECs Dr L Johannning, Prof J Wolfram, G H Smith, Dr R Harris, Heriot-Watt University, UK	ANIMATE: a multidisciplinary observatory network in the North Atlantic Dr R Lampitt, National Oceanography Centre, Southampton, UK; Prof U Send, Scripps Institute of Oceanography, USA; Dr T J Mueller, IFM-GEOMAR, Germany; Dr G Meinecke, Marum Centre for Marine Environmental Sciences, Germany; Dr M Villagarcia, Instituto Canario de Ciencias Marinas, Spain; Dr H Valdimarsson, Marine Research Institute, Iceland	Spatio-temporal patterns of coral larval settlement in three selected reefs in Southern Sri Lanka P B Terney Pradeep Kumara, Dr P R T Cumarathunga, University of Ruhuna, Sri Lanka	1220 – 1245
Discussion				1245 – 1300
Lunch - Sponsored by ABS				1300 – 1430
The innovation hour				1330 – 1430

WMTC TECHNICAL PROGRAMME

(SUBJECT TO AMENDMENT)

WEDNESDAY 8 MARCH 2006 PM

TIME	MARINE ENGINEERING SYSTEMS – ICMES 2006	COMMERCIAL SHIPPING sponsored by Lloyd's Register	NAVAL ENGINEERING – INEC 2006	UNDERWATER VEHICLES – ATUV 2006 in association with
	ALARMS HUMAN INTERFACE	SHIPBUILDING, REPAIR AND CONVERSION	NAVAL PLATFORMS	
1430 – 1455	Perception and management of risk - dependence on people and systems V Pomeroy, Lloyd's Register, UK	Application of knowledge based engineering methods for standardization and quality assurance in ship structural design Dipl Ing M Zimmermann, Prof Dr Ing R Bronsart, University of Rostock, Germany	Future naval tankers - bridging the environmental gap - the cost effective solution A Kimber, BMT Defence Services Ltd, UK; A M Vik, Skipskonsulent AS, Norway	Development of unmanned surface vehicles D Hook, Automomous Vehicles Ltd, UK
1455 – 1520	Improving the design and management of alarm systems Prof B Sherwood Jones, Dr J Earthy, E Fort, D Gould, Lloyd's Register, UK	Non-commercial scientific and educational project "Virtual EduShip & Ware" Technology for the safe and humane use of resources in the hydrosphere and marine industry Prof V L Alexandrov, Admiralty Shipyards, Russia	A family of Underway Replenishment Ships D Bricknell, R Skarda, Rolls-Royce, UK; P E Vedlog, Rolls-Royce Marine AS, Norway	The development of a buoyancy system Dr M Worall, Dr P Bagge, A Holford, Prof M Playne, Neilson, University of
1520 – 1545	Alarm management on merchant ships Ø Rødseth, MARINTEK, Norway; M Knight, R Storari, Carnival Corporation & plc, UK; H Foss, A R Tinderholt, Kongsberg Maritime AS, Norway	Analysis and modelling of current technologies in shiprepair and conversion industry S Vacante, CETENA, Italy; A Sinha, SSA, UK	Air Supported Vessels (ASV) – an innovative approach to reduce hull resistance and improve performance - suitable for various naval and commercial applications U Tudem, SES Europe AS, Norway	TROL - Solving the underwater radiation detection problem M French, Fathoms Ltd
1545 – 1600	Discussion			
1600 – 1630	Tea			
	BILGE AND WASTE	GOAL-BASED STANDARDS AND SHIP DISPOSAL	NAVAL PLATFORMS (contd)	
1630 – 1655	Pyrolysis for solid waste treatment on Royal Navy platforms C Day, QinetiQ, UK; Lt Cdr I Cowper RN, Ministry of Defence, UK	The regulation of safety in a demanding world V Pomeroy, Lloyd's Register, UK	The NATO Submarine rescue system: An integrated approach to saving submariners N Yard, Rolls-Royce Naval Marine, UK	Autonomous underwater vehicles in ocean science: capabilities, and future applications within, the National Atmospheric Administration J Manley, Mitretek Systems
1655 – 1720	Factors affecting bilge water properties and oily water separator system performance H Alper, MYCELX Technologies Corporation, USA	A flexible approach to the application of risk-based methods to the inspection of hull structures Dr R Basu, A-K Lee, American Bureau of Shipping, USA	Mechanical buckling collapse testing on aluminum stiffened plate structures for marine applications Prof J K Paik, Prof J M Lee, J Y Ryu, J H Jang, Pusan National University, Korea; Dr C Renaud, Alcan Marine, France; Dr P E Hess, NSWCCD, USA	Potential environmental impacts on the use of AUVs in the coastal zone - a way forward W Aicken, R Rogers, I J, Dr S Healy, QinetiQ
1720 – 1745	Discussion	DEMOLISHCON - the standard contract for recycling of ships T C Strand, BIMCO, Denmark	Discussion	ROV Engineers: the future G Dunbar, The Robert
1745 – 1800		Discussion and close		Discussion and close

TOPICS – Association with SUT	MARINE RENEWABLE ENERGY – MAREC 2006	OPERATIONAL OCEANOGRAPHY	REEFS OF THE WORLD	TIME
	WAVE (contd)	OCEAN OBSERVING SYSTEMS (contd)	MECHANISMS AND SOLUTIONS FOR CORAL REEF 'CRISIS'	
Planned Surface	TBA	The POL Liverpool Bay Coastal Observatory J Howarth, Dr R Proctor, P Knight, Dr M Smithson, Proudman Oceanographic Laboratory, UK; Dr D Mills, CEFAS, UK	A specific approach for coral reef conservation and development in SIDS (small island developing states) - the CRISP programme Dr E Clua, CRISP, New Caledonia	1430 – 1455
Variable ley, Dr A Jamieson, er, Dr R D Aberdeen, UK	Performance prediction of a combined Wells-Darrieus rotor with model tests and a computational vortex model Ir P Scheijgrond, Ir A Schaap, Ir B-J Sustronk, Ecofys BV, The Netherlands; Ir J Versteegh, T U Delft, The Netherlands; E Rossen, Ingenioerfirma Rossen, Denmark	The Urban Ocean Observatory - coastal ocean observations and forecasting in the New York Bight Prof M Bruno, Prof A Blumberg, Prof T Herrington, Stevens Institute of Technology, USA	The status and future of coral reefs in the Indian Ocean Prof O Linden, World Maritime University, Sweden	1455 – 1520
Underwater nigma d, UK	The OWEL Wave Energy Converter - demonstrator phase J Kemp, OWEL, UK; J O'Nians, IT Power, UK	Towards a European Marine Ecosystem Observatory (EMECO) Dr D Mills, J Rees, Dr S Malcolm, Dr C Fox, CEFAS, UK; Dr M Edwards, SAHFOS, UK; Prof R Laane, Dr P Bot, RIKZ, The Netherlands; Dr H Ridderinkhof, NIOZ, The Netherlands; Prof F Colijn, Dr W Petersen, Dr F Schroeder, GKSS Research Centre, Germany; H Wehde, Dr J Johannesen, Nansen environmental and remote sensing centre, Norway; Dr E Svendsen, IMR, Norway; Dr B Hackett, Norwegian Meteorological Institute, Norway	TBA	1520 – 1545
Discussion				1545 – 1600
Tea				1600 – 1630
	WIND	OCEAN OBSERVING SYSTEMS (contd)	RECOMMENDATIONS FOR POLICY CHANGES TO SOLVE CORAL REEF 'CRISIS'	
Water vehicles use studies lications l Oceanic and istration ystems/NOAA, USA	A reconfigurable induction motor drive with selective harmonic cancellation L Qian, D Cartes, H Li, Florida State University, USA	Coriolis, a french project for operational oceanography S Pouliquen, et al, IFREMER, France	The future of the Great Barrier Reef S L Morris, Dr R Reichelt, CRC Reef Research Centre, Australia	1630 – 1655
ental constraints within the y forward Dr S Jones, UK	Assessing novel foundation options for offshore wind turbines Dr B Byrne, Prof G Houlby, The University of Oxford, UK	Red ACOMAR: Network for Marine Surveillance, Control and Observation in the Canary Islands archipelago C Barrera, M G Villagarcia, J Perez-Marrero, J M Godoy, L Maroto, L Cardona, E Gonzalez, C Llerandi, N Alamo, M J Rueda, O Llinas, Instituto Canario de Ciencias Marinas, Spain	Coral reefs of Southeast Asia - is there hope? Dr L-M Chou, National University of Singapore, Singapore	1655 – 1720
next generation Gordon University, UK	1720 – 1730 Discussion	1720 – 1730 Discussion	Discussion and close	1720 – 1745
				1745 – 1800

WMTC TECHNICAL PROGRAMME

(SUBJECT TO AMENDMENT)

THURSDAY 9 MARCH 2006 AM

TIME	MARINE ENGINEERING SYSTEMS – ICMES 2006		NAVAL ENGINEERING – INEC 2006	
	PARALLEL A – EMISSIONS	PARALLEL B – HYDRODYNAMICS	PARALLEL E – HUMAN FACTORS	PARALLEL F – AUXILIARY SYSTEMS
0900 – 0925				Intelligent fluid systems Lt M Goodall RN, Ministry of Defence, UK; G Doherty, Rolls-Royce, UK
0925 – 0950	On-board emissions monitoring - an environmental leap forward S Brown, Martek Marine Ltd, UK	Inboard propeller cavitation: a practical guide and new performance model D MacPherson, HydroComp Inc, USA; C Turmelle, University of New Hampshire, USA	The role of systems engineering in naval platform design and operation Prof B Sherwood Jones, Process Contracting Limited, UK; Dr J Earthy, Lloyd's Register, UK; Dr S Arnold, QinetiQ, UK; M D Chubb, Ministry of Defence, UK	Automated control of charging J Bentley, Imes Ltd, UK; Hamilton (Valves) Ltd, UK; D Todd RN, Ministry of Defence, UK
0950 – 1015	Fundamental study on NOx reduction for marine engines with direct water injection Prof Dr K Takasaki, Dr H Tajima, S Murakami, K Kume, Kyushu University, Japan	Dynamics of ventilated propeller blade loading on thrusters Dr K Koushan, Rolls-Royce/MARINTEK UTC, Norway	Complex systems analysis - designing for the operator Cdr (FGN) C Bastisch, Naval Office, Germany	To what extent can existing technology be used to protect protection on RN surface ships? Lt P Mountford RN, Lt N Hamilton, Ministry of Defence, UK; University College London, UK
1015 – 1040	An investigation of the performance of natural gas with rapeseed methyl ester pilot injections for marine diesel engine operation Dr K D H Bob-Manuel, Rivers State University of Science and Technology, Nigeria; Prof R J Crookes, Queen Mary University of London, UK	US Navy hydrodynamic design - lessons learned D McCallum, McCallum Consulting, USA	Integrating ship design and personnel simulation Prof D Andrews, L Casarosa, R Pawling, University College London, UK; Prof E Galea, S Deere, Dr P Lawrence, Dr S Gwyne, University of Greenwich, UK; P Boxall, Ministry of Defence, UK	Shipboard Intelligent System (SIFSS) P White, BAE SYSTEMS, UK
1040 – 1100	Discussion			
1100 – 1130	Coffee			
	PARALLEL C – MARINE ENGINEERING SYSTEMS AND EQUIPMENT	PARALLEL D – PROPELLERS AND THRUSTERS	PARALLEL G – AUTONOMOUS NAVAL VEHICLES	PARALLEL H – ELECTRIC SYSTEMS
1130 – 1155	Experiences with electrically powered podded propulsion units on cruise ships J Hopkins, UK	Tip rake: improved propeller efficiency and cavitation behaviour K P Vonk, Wärtsilä Propulsion Netherlands BV, The Netherlands; Prof Dr I R van Terwisga, Delft University of Technology, The Netherlands; Ir J T Ligtelijn, Wärtsilä Propulsion Netherlands BV, The Netherlands	The impact of unmanned vehicles upon naval ship design Dr R Bucknall, Dr A Greig, University College London, UK	Variable speed drive test demonstrator D Robinson, Ultra PMES, UK; Lt K Watkins RN, Ministry of Defence, UK
1155 – 1220	The new generation of LNG carrier machinery B Thijssen, Wärtsilä Ship Power Solutions, Finland	The use of non linear models in the analysis of CPP actuator behaviour J Bakker, Dr H Grimmelius, Delft University of Technology, The Netherlands; A Wesselink, Wärtsilä Propulsion Netherlands, The Netherlands	Design of an autonomous surface vessel Midshipman C M Reed, Ass Prof B E Bishop, Ass Prof J K Waters, US Naval Academy, USA	Superconducting fault current limiters for marine applications S Husband, Rolls-Royce Research Centre, UK; Dr M Hirst, University of Strathclyde, UK
1220 – 1245	Electric propulsion for LNG carriers - current and future solutions P Manuelle, A Belkentaoui, V Sekula, C Jeand'heur, APC Power Conversion SAS, France	Addressing thruster noise and vibration R Fischer, Noise Control Engineering Inc, USA	Technology options for air vehicle launch from maritime platforms Lt Cdr M T W Bolton RN, Cdr J L Wood RN, Ministry of Defence, UK; D I Rowlands, Frazer-Nash Consultancy Ltd, UK	New developments in permanent magnet connected, permanent magnet generators for marine propulsion A Nelson, M Baker, Direct Energy Systems Inc, USA; C Hu, A Filatov, Calnetix Inc, USA
1245 – 1310	1245 – 1300 Discussion	Full scale comparison between the performances of a superferry fitted consecutively with high skew conventional blades and CLT blades Dr G Pérez Gómez, J González Adalid, Sistemar SA, Spain; Dr A García Gómez, Dr J Masip Hidalgo, Dr R Quereda Laviña, L Pangusion, Canal de Experiencias Hidrodinámicas del Pardo, Spain; E Minguito Cardeña, NAVANTIA SA, Spain; P Beltrán, C Galindo, TSI SL, Spain; M Pérez Sobrino, Escuela Técnica Superior de Ingenieros Navales, Spain	Electro Magnetic Kinetic Integrated Technology - development of an advanced linear induction motor powered UAV launch demonstrator A Foster, Force Engineering Limited, UK; E Lewis, ALSTOM Power Conversion Ltd, UK; Lt M Thomson RN, Ministry of Defence, UK	Discussion
1310 – 1330	Discussion			
1330 – 1430	Lunch			
1330 – 1430	The innovation hour			

EXHIBITION OPEN: 0800 - 1900 HOURS

	MARINE RENEWABLE ENERGY – MAREC 2006	EEZ MANAGEMENT	OPERATIONAL OCEANOGRAPHY	TIME
AUXILIARIES	TIDAL	OVERVIEW AND TECHNOLOGY	OCEAN FORECAST MODELLING AND DATA ASSIMILATION/OCEAN DATA MANAGEMENT AND DISSEMINATION	
Marine Current Turbines™ Ltd's tidal turbine developments: the development of an entirely new energy conversion system Prof P Fraenkel, Marine Current Turbines Ltd, UK	0915 - 0925 Welcome and introduction Conference Stream Chairman	The National Centre for Ocean Forecasting Dr M J Bell, Met Office, UK; K Haines, Reading University, UK; E Hill, National Oceanography Centre, Southampton, UK; N J P Owens, Plymouth Marine Laboratory, UK; R Proctor, Proudman Oceanographic Laboratory, UK	0900 – 0925	
The TidEl floating free-stream tidal turbine system R Manchester, SMD Hydrovision, UK	EEZ Management I McLaren, BlueFinger Ltd, UK	The TOPAZ monitoring and prediction system for the Atlantic and Arctic Oceans Dr L Bertino, Dr K A Lisæter, Mohn-Sverdrup Center/Nansen, Norway	0925 – 0950	
The vertical axis Kobold turbine in the Strait of Messina - a case study of a full scale marine current prototype H Eriksson, A Moroso, Prof A Fiorentino, Ponte di Archimede SpA, Italy	IMO Maritime Security Policy - background paper C Trelawny, International Maritime Organization (United Nations)	The GODAE/Mercator global ocean forecasting system, results, applications and prospects M Drévilion, Y Drillet, G Garric, J-M Lellouche, E Rémy, C Derval, R Bourdalle-Badie, B Tranchant, M Laborie, CERFACS, France; N Ferry, E Durand, O Le Galloudec, P Bahurel, Mercator-Ocean, France; E Greiner, S Guinehut, M Benkiran, N Verbrugge, E Dombrowsky, CLS, France; C-E Testut, M G C, France; L Nouel, ALIACOM, France; F Messal, SILOGIC, France	0950 – 1015	
Gibraltar's strait, a marine renewable energy source Dr L R Nuñez-Rivas, Dr M A Herreros, Universidad Politecnica de Madrid, Spain	Safety, security and maritime domain awareness in UK S Guest, Norcontrol IT, UK	Delivering NCOF operational marine data through the internet Prof K Haines, J D Blower, C Liu, A Santokhe, University of Reading, UK	1015 – 1040	
Discussion				1040 – 1100
Coffee				1100 – 1130
ELECTRIC AUXILIARIES	TIDAL (contd)	EEZ MANAGEMENT	OCEAN FORECAST MODELLING AND DATA ASSIMILATION/OCEAN DATA MANAGEMENT AND DISSEMINATION (contd)	
Experimental investigation on cavitation performance, noise characteristics and slipstream wash of an ocean stream turbine Dr D Wang, Prof M Atlar, University of Newcastle upon Tyne, UK	Safety of navigation and protection of the Adriatic Sea - challenge and priorities for neighbouring countries as well as national regulatory and professional institutions Capt Ž Bradarić, Z Gržetić, B Petričević, Hydrographic Institute of the Republic of Croatia, Croatia	A Remote Sensing Ocean Portal for GMES Ocean Dr F Blanc and partners of the MERSEA Project, France	1130 – 1155	
Certification of Ocean Current Turbines, the GL Wind Guideline Dipl Ing K Argyriadis, Dipl Ing S Schwartz, Germanischer Lloyd WindEnergie GmbH, Germany	On the evaluation of mandatory offshore Traffic Separation Scheme in international waters of the coast of Northern Norway Prof N Kjerstad, Aalesund University College, Norway	The Global Ocean Data Assimilation Project High Resolution Sea Surface Temperature Pilot Project (GHRSSST-PP) Dr C Donlon, National Centre for Ocean Forecasting, UK	1155 – 1220	
Analysis and comparison of support structure concepts for tidal stream turbines J Orme, Dr I Masters, University of Wales Swansea, UK	Optimizing the fish catching potentials of developing nations in the EEZ regime (The Nigerian & West African case) C Onyemechi, Federal University of Technology Owerri, Nigeria	1220 - 1230 Discussion	1220 – 1245	
1245 – 1300 Discussion	Pacific Islands Regional Maritime Boundaries Project: Future directions E Artack, SOPAC, Fiji Islands	1230 – 1255 The establishment of the Indian Ocean tsunami warning and mitigation system: operational oceanography to save lives and property M Yamamoto, UNESCO	1245 – 1310	
	Discussion	1255 - 1320 Performance metrics for ocean forecasts - testing how good forecast models really are? R Stephens, Dr R Rayner, Ocean Numerics, UK		
		1320 – 1330 Discussion	1310 – 1330	
Lunch				1330 – 1430
The innovation hour				1330 – 1430

WMTC TECHNICAL PROGRAMME

(SUBJECT TO AMENDMENT)

THURSDAY 9 MARCH 2006 PM

TIME	MARINE ENGINEERING SYSTEMS – ICMES 2006		NAVAL ENGINEERING – INEC 2006	
	PARALLEL E – MARINE ENGINEERING SYSTEMS AND EQUIPMENT (contd)	PARALLEL F – SHIP MOTION	PARALLEL I – ESTD	PARALLEL J – ELECTRIC AUXILIARIES (contd)
1430 – 1455	Biomimetic approach to the design of marine antifouling coatings L Chambers, Prof F Walsh, Prof R Wood, University of Southampton, UK; K Stokes, Dstl, UK	Ventilation effects on cavitating wedges and struts S Gowing, Y Shen, NAVSEA Warfare Center, USA	Lessons learnt from modelling an integrated electrical propulsion system Dr R Stephens, M Butcher, ALSTOM Power Conversion Ltd, UK	Developing the all-gas turbine Lt I Timbrell RN, Lt J Timbrell RN, Ministry of Defence; A Green, Ultra Electronics
1455 – 1520	“Cold ironing” - connecting marine and navy ships to the on-shore power Dr Y Khersonsky, IEEE, USA; D Paul, EarthTech Inc, USA; K Peterson, P2S Engineering Inc, USA	On the relation between flow behaviour and the lateral force distribution acting on a ship in oblique motion Ir B van Oers, Delft University of Technology, The Netherlands; Ir S Toxopeus, MARIN, The Netherlands	Link converters for quality of power supply - the reality M Butcher, Dr W J Cheong, Dr M Benatmane, ALSTOM Power Conversion Ltd, UK	Progress of electric linear actuators for ship applications R Hudson, K Maidment, Defence Services Ltd; V Rao, Dr G Perera, Ultra Electronics
1520 – 1545	Wear mechanisms of a blade foot bearing on a controllable pitch propeller M Godjevac, Dr H Grimmelius, Delft University of Technology, The Netherlands; Prof D Stapersma, Royal Netherlands Naval College, The Netherlands; T van Beek, Wärtsilä Propulsion Netherlands, The Netherlands	Numerical optimisation of propeller/hull configurations at full scale Prof L Larsson, K Han, Prof G Bark, N Bathfield, Chalmers University of Technology, Sweden; Dr B Regnström, FLOWTECH International AB, Sweden	Advanced marine electrical power system behaviour under severe disturbances Lt J Pot RNLN, Ministry of Defence, UK; Dr M Redfern, Bath University, UK	1520 – 1530 Discussion
1545 – 1610	Ship energy performance benchmarking/rating: methodology and application Dr Z Bazari, Lloyd's Register EMEA, UK	A particle-based 'Lagrangian' CFD tool for free-surface simulation D Muñoz, V Gonzalez, M Blain, Next Limit Technologies, Spain; J Valle, CEHIPAR, Spain; J C Díaz-Cuadra, NAVANTIA, Spain	1545 – 1600 Discussion	
1610 – 1630	Discussion	Discussion	1600 – 1635 Closing summary	
1630 – 1640	Closing remarks		1635 – 1640 Closing remarks	
1640 – 1715	Tea			
1715 – 1745	WMTC Plenary: Closing summary Chairman: Maurice Storey CB, President, IMarEST Closing summary: Frank Mungo, Past President, IMarEST Closing remarks: Dr Stephen Ladyman MP, Minister of State for Transport, UK WMTC 2009 Mumbai, Dr R Bhavnani, President, Institute of Marine Engineers (India)			
1745 – 1900	WMTC Closing reception			

	MARINE RENEWABLE ENERGY – MAREC 2006	EEZ MANAGEMENT	OPERATIONAL OCEANOGRAPHY	TIME
TRIC (contd)	ELECTRICAL	PLATFORM DESIGN	INDUSTRY AND GOVERNMENT APPLICATIONS FOR OPERATIONAL OCEANOGRAPHY (contd)	
Electric marine Cdr N McCallum ence, UK; S Mason, tronics PMES, UK	"Snapper™": An efficient and compact direct electric power take-off device for wave energy converters Prof E Spooner, Durham University, UK; Dr J Grimwade, NaREC, UK	COHORT - a new type of EEZ management vessel J Buckley, C Hamilton, BMT Defence Services Ltd, UK	The development of the Global Ocean Observing System (GOOS) in the context of Global monitoring for Environmental Security (GMES) and the Global Earth Observation System of Systems (GEOSS) Dr R Rayner, Marine Information Alliance	1430 – 1455
o-magnetic or large force ent, BMT d, UK; Prof H EMDigital	Generators and electrical systems for direct drive energy conversion K Thorburn, K Nilsson, O Danielsson, Prof M Leijon, Uppsala University, Sweden	Flexible platform for an offshore multi-role vessel Capt J L Urcelay, Cdr J Manrique, Cdr F Bernal, Spanish Navy, Spain; J R Chacón, F del Castillo, Navantia S A, Spain	Impact of operational ocean forecasting on improvement of oil spill drift modelling in Meteo-France P Daniel, Dr S Varlamov, Dr P Dandin, Meteo-France, France	1455 – 1520
ssion	Tuning a wave energy device using a direct drive linear electrical generator Dr M Mueller, J Shek, Dr E Macpherson, University of Edinburgh, UK; Dr J Xiang, University of Loughborough, UK	Tanker accidents and environmental disasters: has the maritime industry acknowledged their connection to Human & Organizational Errors? Dr N P Ventikos, E Chaviaris, Prof H N Psaraftis, National Technical University of Athens, Greece	Incorporating satellite data into offshore weather advice systems Dr D Cotton, Dr E Ash, Satellite Observing Systems, UK	1520 – 1545
	Harmonic mitigation techniques applied to isolated power distribution networks H Kazim, Dr B Zahawi, Dr C French, University of Newcastle upon Tyne, UK	Discussion and close	The Cook Islands black pearl industry: an application of coastal GOOS R Smith, E McKenzie, Dr S Grimes, SOPAC, Fiji Islands	1545 – 1610
				1610 – 1630
	Discussion and close		Discussion and close	1630 – 1640
Tea				1640 – 1715
WMTC Plenary: Closing summary				1715 – 1745
WMTC Closing reception				1745 – 1900

POSTER PRESENTATIONS

NAVAL ENGINEERING – INEC 2006

Next generation naval shipboard power system: issues and challenges

R Jayabalan, Dr B Fahimi, University of Texas at Arlington, USA

MARINE ENGINEERING SYSTEMS – ICMES 2006

A generalised mixed flow pump model for waterjets simulation

Eng G Benvenuto, Ass Prof U Campora, Università di Genova, Italy

ODMCS modelling and simulation

D Dave, Prof I Basu, Capt S Deshpande, Tolani Maritime Institute, India

COMMERCIAL SHIPPING

sponsored by Lloyd's Register

Numerical prediction of air, temperature and gas concentration in ventilated cargo holds

A Brehm, Dr O El Moctar, Germanischer Lloyd AG, Germany

Failure analysis of propulsion shafting coupling bolts

Dr Y Song, H Shiihara, D Shiraki, Y Nagayama, Nippon Kaiji Kyokai (ClassNK), Japan

Unsteady RANS computation on a high skew propeller in behind condition

R Mikkelsen, P Andersen, J A Michelsen, J N Sorensen, DTU, Denmark

Innovations in the natural gas transportation

J Romero, Polytechnic University of Madrid, Spain

OPERATIONAL OCEANOGRAPHY

An integrated operational system for wave monitoring and forecasting with applications in the Greek coastal shipping network

Dr T Soukissian, Dr A Prospathopoulos, P Samalekos, M Chatzinaki, Hellenic Centre for Marine Research, Greece

OFFSHORE OIL AND GAS

A simple method for calculating responses of a turret-moored FPSO in shallow water areas

S Mazaheri, TNA Consulting Engineering Co, Iran

MARINE RENEWABLE ENERGY – MAREC 2006

Performance of cable risers in a dynamic environment

E H Yap, Dr R Bucknall, University College London, UK

Preliminary numerical studies on a modified Edinburgh duck using WAMIT

J Cruz, G Payne, University of Edinburgh, UK

A parametric study of the OWSC wave power device using a free surface capturing solver

C Mingham, Dr L Qian, Prof D Causon, Dr D Ingram, Manchester Metropolitan University, UK

Potential nature conservation and landscape impacts of marine renewable energy developments in Welsh territorial waters

Dr C Hinton, S Kazar, ABP Marine Environmental Research Ltd, UK; Dr S Wood, Countryside Council for Wales, UK

THE INNOVATION HOUR

Tuesday 7 March

1330 – 1350

ExplorOcean - a public window on marine technologies
K Boot, National Marine Aquarium, UK

1350 – 1410

An introduction to Ekranoplans and Wing in Ground Effect Vehicles
G Taylor, Hypercraft Associates, UK

1410 – 1430

Research and development a must for the shipbuilding and shiprepair industry
A Sinha, SSA, UK

Wednesday 8 March

1330 – 1350

3D laser imaging applied to marine industry
S Cedarleaf, Provide Solutions LLC, USA

1350 – 1410

SF Kelpie™: promises gigawatts of wave power from seabed mounted SPAWECs
Dr B Chaplin, Lancaster University, UK

1410 – 1430

TBA

Thursday 9 March

1330 – 1350

Improving ship design reviews with immersive environments
B Sherwood Jones, I Johnston, Glasgow School of Art, UK

1350 – 1410

Hydrodynamic propulsion
H J Berge, Tyvik AS, Norway

1410 – 1430

TBA



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