



SMATECH 2016

**International Conference on Smart and
Green Technology for the future
of Marine Industries**

25-26 April 2016,

**The Corinthian Club,
191 Ingram Street
Glasgow, UK**



SMATECH 2016: Day 1: 25th April

08:25 - 08:55 Delegate Registration

08:55 - 09:00 Welcome,

09:00 - 09:40 KEYNOTE PAPER: Innovative Technologies for Energy Efficiency, Abdul Rahim, Class NK

09:40 - 10:20 KEYNOTE PAPER: Sustainable Development and Growing the Blue Economy -The Next 50 Years, Paul Holthus, the World Ocean Council

10:20 - 10:40 Shipping and Trade under Climate Change Pressures, Alice Bows-Larkin, University of Manchester

10:40 - 11:10 Break

11:10 - 11:30 ECA Requirements and the Scrubber Option, Nick Confuorto, CR Ocean Engineering

11:30 - 11:50 Cooperation between Port and City in Reducing Air Pollution: Managing Air Quality at the Port of Oslo, Heidi Neilson, Port of Oslo

11:50 - 12:10 European Environmental Laws: Considerations on the Cruise Ports in the Mediterranean Basin, Valeria Mangiarotti, Port Authority of Caligari

12:10 - 14:00 Lunch

14:00 - 14:40 KEYNOTE PAPER: The Fuel Trilemma, Christos Chryssakis, DNV GL

14:40 - 15:00 Particulate Matter and Black Carbon Emissions from Shipping: Filling the Knowledge Gap, M. Zeretzke, M. Lehmann, H. Astrand, DNV GL

15:00 - 15:20 Application and Emission Components of Exhaust Gasses to Estimate the Technical State of Marine Diesel Engines, Jan Monieta, Maritime University of Szczecin

15:20 - 15:50 Break

15:50 - 16:10 Reduction of Particulate Matter and CO₂ Emissions from Ships, Anatol Jaworek, Polish Academy of Sciences

16:10 - 16:30 Reducing Shipping Emissions: Technologies and Measures to Limit CO₂ and Air Pollution Emissions, Daniel Rieger, NABU

16:30 - 16:50 SCR Catalysis for Marine Diesel Engine Exhaust Gas Treatment, Mingyu Guo, Tianjin University

Parallel Session: Mercer Room:

14:40 - 15:00 ECA Requirements and the Scrubber Option, Nick Confuorto, CR Ocean Engineering

15:00 - 15:20 A new Greenhouse Gas Emissions Initiative, Ian Adams, Internation Dry Bulk Terminals Group

15:20 - 15:50 Break

SMATECH 2016: Day 1: 25th April

15:50 - 16:10	Risk applied for the choice of an optimum Ballast Treatment System for a oil tanker vessel, Sara da Silva Jorge, Tanzer Satir, Istanbul Technical University
16:10 - 16:30	A Study on the VOCs Emission from the Cargo Area of a Crude Oil Tanker, Panos Deligianis, NEDA Maritime Energy
16:30 - 16:50	The Liberian Registry's Eco –Upgrade Financing Programme, Christian Mollitor, Liberian Registry
16:30 - 16:50	Application of AIDA Cruises and Becker Marine Systems/ Hybrid Port Energy, Max Kommorowski, LNG Hybrid Barge Project
18:00	Civic Reception, Glasgow City Chambers, George Square, G2 1DU
19:00	Conference Dinner, the Corinthian Club, 191 Ingram Street, G1 1DA

SMATECH 2016: Day 2: 26th April

9:00 - 9:40	KEYNOTE PAPER: Material Efficiency via Ship Building, Paul Gilbert, University of Manchester
9:40 - 10:00	Wind Challenger – The Next Generation Hybrid Sailing Vessel, Kazuyuki Ouchi, University of Tokyo
10:00 - 10:20	Emerging Photovoltaic (PV) and Battery Technologies for Green Cruise Ships, Mukund Patel, US Merchant Marine Academy
10:20 - 10:40	Methanol as Engine Fuel: Challenges and Opportunities from Technology, Regulations and Ship-Owners' Perspective, Tony Stojcevski, Wartsila
10:40 - 11:10	Break
11:10 - 11:30	From Research to Market - Promoting Technology Uptake through Cross-Border Innovation Projects in Green Shipping: A Case Study, Josh Morshead, MARIKO
11:30 - 11:50	Reducing Carbon Dioxide Emissions from Ships Using Bio Crude: A Marine Perspective, Elstine Padayattil, ASRANet Ltd
11:50 - 12:10	Air Lubrication Technology for Greener Shipping, Matthew Patey, Foreship
12:10 - 14:00	Lunch
14:00 - 14:40	KEYNOTE PAPER: How can risk assessment and decision-making be used in smart and green marine industries?, Jin Wang, Liverpool John Moores University
14:40 - 15:00	The Storm of Ballast Water Treatment is Brewing: Ports Need to Prepare, Gert-Jan Oude Egberink, Damen Shipyards
15:00 - 15:30	Break

SMATECH 2016: Day 2: 26th April

- 15:30 - 15:50** A Decade's Worth of Operational Experience and Learning in Ballast Water Treatment, Mark Riggio, Hyde Marine
- 15:50 - 16:10** Transitioning Micronesia to Low-Carbon Transport, Peter Nuttall, Alison Newell, Anvita Goundar, University of the South Pacific
- 16:10 - 16:30** Smart Fire & Gas Technology, Christophe Cerf, Councelprev
- 16:30** Conference Closes

SMATECH 2016: About the Keynote Speakers

Dr Abdul Rahim



Abdul Rahim started his career with Cochin Shipyard building Panamax bulk carriers and the first generation of double hull tankers. Later, after receiving masters and doctoral degrees in Ship Structure from Hiroshima University, Japan, he joined ClassNK in Tokyo, and worked for ClassNK ever since. After long stints in Japan and Singapore, he is currently the Managing Director, Europe and Africa of ClassNK, based in London. He received the Singapore Joint RINA and IMarEST Branch Award in 2004 and the Stanley Gray Medal of IMarEST in 2005 for his works on the development of Advanced Structural Rules which was the forerunner of IACS Common Structural Rules.

Mr Paul Holthus



Paul is the founding CEO of the World Ocean Council, the international business leadership alliance on "Corporate Ocean Responsibility". The WOC brings together seabed mining, oil/gas, shipping, fisheries, aquaculture, tourism, offshore renewables, submarine cables, and other ocean industries – creating unprecedented ocean business community leadership and collaboration in addressing shared marine sustainability challenges. Paul has held senior positions with the UN Environment Program and international environment organizations. Since 1998, Paul has worked with the private sector to develop practical solutions to sustainable ocean development. He has worked in over 30 countries with companies, communities, industry associations, UN agencies, NGOs, foundations and governments.

Dr Christos Chryssakis



Christos Chryssakis is Principal Researcher at DNV GL, in Norway. He is currently Group Leader for Energy Efficiency & Fuels in DNV GL's Strategic Research & Innovation unit.

He holds a Diploma in Mechanical Engineering from the National Technical University of Athens, and an MSc and a PhD in Mechanical Engineering from the University of Michigan.

Prof Paul Gilbert



Paul Gilbert is a Chartered Mechanical Engineer working in the field of climate change mitigation. His PhD was in chemical engineering focusing on biomass gasification. Research interests include international shipping, renewable technology and industrial sector decarbonisation. Skills include life cycle assessment, techno economics and policy engagement.

Prof Jin Wang



Prof. Jin Wang is Director of Liverpool Logistics, Offshore and Marine (LOOM) Research Institute and Associate Dean (Scholarship and Research) of Faculty of Technology and Environment, Liverpool John Moores University (LJMU), UK. He received a BSc in Marine Automation from Dalian Maritime University in 1983, an MSc in Marine Engineering and a PhD in Safety Engineering from Newcastle University, UK in 1989 and 1994, respectively. Following just less than 5 years' research as a Research Associate at Newcastle University, he joined LJMU as a lecturer in 1995, and was promoted as Reader in Marine Engineering and Professor of Marine Technology in 1999 and 2002, respectively.

He has been involved in maritime and offshore engineering system research with significant financial support from the UK research councils, EU, etc. He has successfully completed supervision of more than 40 doctoral/postdoctoral researchers. Prof. Wang's publications include 2 research monographs and more than 100 SCI cited journal papers. He has won several research awards including two Denny Medals from the Institute of Marine Engineering, Science and Technology (IMarEST). Prof. Wang was a sub-panel member (sub-panel 12: Aeronautical, Mechanical, Chemical and Manufacturing Engineering) in the UK's Research Excellence Framework 2014.

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