

24-25 April 2025, Holiday Inn, Sutton London

6th International Conference on Smart & Green Technology for
Shipping and Maritime Industries

SMATECH 2025



Call for Papers

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About the Conference

With higher fuel costs and raising environmental concerns globally, there has been an increased incentive to move to-wards marine technology that is more eco-friendly in nature. The term “Green Technology” is applied to procedures, de-signs and systems that helps contribute in an eco-friendly fashion. Green Technology is nothing new and has existed for years but often disregarded for various reasons. One such example being the Flettner Rotor which had been developed as early in the 1920s but was shelved on an economic basis as the high capital costs outweighed the low bunker costs. With higher fuel costs and an increased focus on becoming “greener”, such technology is being developed again. Part of this growth in green technology is because of new legislation. With tougher legislation being implemented regarding carbon emissions, it is expected billions of dollars is to be invested by organizations to meet these emission caps, or risk large penalties. As a result of the investment geared towards making ships greener, the industry is continually looking to develop and improve on existing ship design and systems. These improvements are centred on driving down fuel consumption and carbon emissions, which both contribute to a greener environment. With this increased importance on being green, being placed by an increasing amount of stakeholders within a business, it is becoming vital that we increase engagement between industry and academia. This is to ensure that the technology and practices match the ambition and objectives that have been set, and drive R&D across the industry.

Conference Themes

- Commercial strategies for green ship technology
- Innovative designs and alternative technologies for green shipping
- Strategies and options for sustainable shipping 0000
- Marine Equipment and future Green Technology developments
- Alternative power source on modern ships (wind and solar power for low emission shipping and sustainable shipping)
- Evaluation of ships fuel efficiency (EEDI/EEOI)
- Energy efficiency (technical and operational measures for efficient fuel consumption)
- Reduction of Gas Emissions (NOx, CO2, SOx, Soot, Smoke and Particulate Matter)
- Oil Spill Management
- Ships waste management (Black & Grey Waste Water Treatment)
- Ballast & Bilge Water Management
- Underwater noise reduction
- Reporting and verification of legal policies for sustainable ships
- Hull bio fouling & antifouling
- Environmental impact assessment process
- Offshore drones
- Autonomous shipping
- Digital & intelligent systems
- Smart ships & ports
- Software validation & reliability
- Design of unmanned vessels
- Sensors & monitors
- Ship design
- Ship vibration
- Ship hydrodynamics

Registration Fees

Full Registration:	£450
Student Registration:	£350

Organising Committee

Professor Purnendu Das
ASRANet Ltd, UK

Key Dates

Abstract Deadline:	19 November 2024
Final Payment:	19 February 2025
Final Paper:	19 May 2025

Technical Advisory Panel

Mr Senananda Abhayasinghe, ABL Group, UK

Prof Pankaj Biswas, Indian Institute of Technology
Guwahati, India

Dr Moritz Braun German, Aerospace Center (DLR), Germany

Prof Purnendu Das, ASRANet, UK

Mr Kaustabha Das, DP World, Dubai

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nology, India

Dr Deepak Kumar, Indian Institute of Technology Madras,
India

Prof Hanbing Luo, University of Tiangin, China

Dr Jakub Montewka, Gdansk Univ of Tech. Poland

Prof. Better Ould et Moctar, Univ.of Disburg-Essen, Germany

Dr Pretheesh Paul, Lloyd's Register, UK

Prof. Jasna Prpic-Orsic, University of Rijeka, Croatia

Dr Abdul Rahim , Class NK, Japan

Dr Sudheesh Ramadasan, Cybermarine Technologies
Pte.Ltd.,UK

Prof Cesare Mario Rizzo, University of Genova, Italy

Dr Md Jahir Rizvi, University of Plymouth, UK

Prof De Debabrata Sen, Emeritus Professor, IIT Kharagpur

India

Dr Tahsin Tezdogan, University of Southampton, UK

Dr James Underwood, BMT, UK

Prof Nikola Vladimir, University of Zagreb, Croatia

Prof V Warrior, Indian Institute of Technology Kharagpur, In-
dia

Prof Zaili Yang , Liverpool John Moores University, UK

Dr Lei Yu, Lloyd's Register, UK

Prof Chengqing Yuan, University of Technology, Wuhan,
China

Prof N M Golam Zakaria, Bangladesh University of
Engineering and Technology, Bangladesh

Prof Yingfei Zan, Harbin Engineering University, China

Key Speaker Notes

Prof Bettar el Moctar, University of Duisburg-Essen, Germany



Bettar el Moctar, studied Naval Architecture and Ocean Engineering at the University of Hamburg/Germany. He graduated in 1997 and has since then worked as a research assistant in different departments of the University of Technology Hamburg, where he has specialized in computational fluid dynamics. He completed his doctorate at the University of Technology Hamburg with a dissertation entitled "Numerical Computation of Forces Acting on Maneuvering Ships." In 2000 he joined the Hamburg Ship Model Basin (HSVA) and worked as a research engineer. He was head of department of fluid dynamics at Germanischer Lloyd/Germany from 2002 to 2008 and global head of research at DNV GL advisory services/Germany from 2013 to 2016. Since 2008 he has been working at the University Duisburg-Essen as a full professor for ship technology and Ocean

Engineering and CEO of the shallow water model basin DST/Germany. He is editor and co-editor for several international journals and has been member of different international committees. His publications cover various aspects of ship dynamics, hydrodynamics, Fluid-Structure-Interaction and autonomous ships, see https://www.uni-due.de/IST/ismt_elmoctar.php).

Dr. Spyros Hidaris, ABS Greece

Dr. Spyros Hidaris CEng FRINA FSNAME is the Manager of Global Ship Systems Centre of ABS in Greece. In his current role he combines knowledge from advanced ship theory and risk methods for the assurance of safe and sustainable ships. To date he has been involved with R&D execution and management, consultancy, and marine new construction. He is a member of the International Towing Tank Conference since 2021 and the International Ships and Offshore Structures Congress since 2006. Throughout his career he has been sponsored by the EU, Lloyd's Register and their Foundation, British Maritime Technology, The Finnish Maritime Foundation, and the Academy of Finland. He worked for 6,5 years as Professor for Aalto university, 14 years for Lloyd's Register internationally and 3 years for UK based engineering consultants. He has held visiting faculty appointments at the Universities of Southampton (UK), INTI (Malaysia), Wuhan University of Technology (China), IIT - KGP and Madras (India).



Key Speaker Notes

Prof Debabrata Sen, Indian Institute of Technology Kharagpur, India

Professor Debabrata Sen, B.Tech, M.Eng., Ph.D., FRINA, FIE is an Emeritus Professor and former head of the Department of Ocean Engineering and Naval Architecture, as well as former head of the Centre for Oceans, Rivers, Land and Atmospheric Sciences, Indian Institute of technology Kharagpur, India. He completed his graduate studies (Master's as well as Doctoral) from Memorial University of Newfoundland, Canada during 1982-88. His Ph.D. dissertation was awarded the David Dunsiger Award of Excellence. Since 1988 he has been engaged in teaching and research at Indian Institute of Technology Madras (1988-91) and Indian Institute of Technology Kharagpur (1991-2021). Upon formal superannuation in 2021, he is continuing in the same institute as Emeritus Professor till date. His main area of expertise is in the broad field of marine, ship and off-shore hydrodynamics with particular emphasis on the subfield of wave-structure interactions, seakeeping and maneuvering. He is the author of a large number of papers in reputed journals, such as Journal of Ship research, Applied Ocean Research, and also in many well-known international conferences in this field. He has served on editorial board of several international journals. He has also successfully completed many projects. Notable among these are the following two. He was the principal coordinator of the National Programme in Marine hydrodynamics during 2007-2014, which was a national programme sponsored by Naval Research Board of India, for coordinating development in the field of marine hydrodynamics within India. He was also the Principle Investigator of the R&D project on development of India's first indigenously developed AUV, He has been member of several national and international committees including the AUV division of ECOR committee. One of his main interest is to disseminate knowledge on practical state-of-art application of hydrodynamics in marine design.



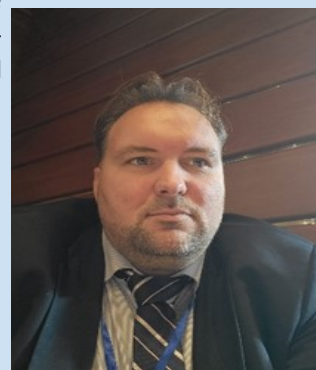
Prof Chengqing Yuan, Wuhan University of Technology, China

Chengqing YUAN, Professor, Dean of School of Transportation and Logistics Engineering at Wuhan University of Technology in China, Associate Director of State Key Laboratory of Maritime Technology and Safety and Associate Director of National Engineering Research Center for Water Transport Safety. He is Vice President of Tribology Institution of Chinese Mechanical Engineering Society (CMES), President of Intelligent New Energy Ship Technology Innovation Industry Alliance and member of WG 217 Working Group of Permanent International Association of Navigation Congresses (PIANC). His research interests mainly focus on marine tribology, new energy and energy efficiency improvement for ships and ports.



Prof. Nikola Vladimir, University of Zagreb, Croatia

Prof. Nikola Vladimir is Associate Professor and Head of the Chair of Marine Engineering at the Faculty of Mechanical Engineering and Naval Architecture (UNIZAG FSB), University of Zagreb. He obtained MSc degree in Naval Architecture in 2007 at UNIZAG FSB, and PhD in the field of Hydroelasticity of ship structures in 2011, at the same University. His research interests include: energy efficiency, environmental friendliness and sustainability of ships and other floating structures, ship power systems, design and operation of special ships (fishing vessels, ro-ro passenger vessels, inland waterway vessels), aquaculture, LCA & LCCA, fluid-structure interaction, static and dynamic analyses of ships and floating structures, etc. As a guest researcher he was appointed at the Technical University of Lisbon, Instituto Superior Tecnico, Lisbon, Portugal, Research Department of Bureau Veritas, Paris, France and at the Pusan National University, Busan, South Korea. During his career Dr. Nikola Vladimir was involved in a number of projects funded through the competitive programmes (EU FP7, Horizon Europe, Interreg ADRION, Global Core Research Center for Ships and Offshore Plants (GCRC-SOP) South Korea, European Maritime and Fisheries Fund (EMFF), European Social Fund (ESF), European Regional Development Fund (ERDF), Croatian Science Foundation (CSF), Bilateral Croatian-Chinese Science and Technology Cooperation, Croatian Ministry of Science, Education and Sports, etc.). He conducted number of technical projects for respectable domestic and international clients (Hyundai heavy Industries Korea, Daewoo Shipbuilding & Marine Engineering Korea, Seatrium Limited Singapore, ...). Dr. Nikola Vladimir is a member of editorial boards of several international journals, member of International Ship and Offshore Structure Congress (ISSC) as well as the vice president of the Scientific Council for Maritime Affairs of the Croatian Academy of Sciences and Arts. He reviewed number of papers for journals and conferences and has authored of more than 250 papers in international journals and specialized conference proceedings.



Prof. Hari Warrior, IIT Kharagpur, India



Prof. Hari Warrior is currently a full professor in the department of Ocean Engineering and Naval Architecture at IIT Kharagpur. Previously, he was the Head of the department from 2019-2022. Professor Warrior did his BTech in Naval Architecture from IIT Madras after clearing the prestigious JEE and then went on to do an MS and PhD at University of South Florida, USA. After his studies he joined as an Assistant Professor at IIT Kharagpur. He was promoted to Associate Professor and then to full Professor. Professor Warrior's expertise is in Computational Fluid Dynamics and associated turbulence modelling. He has more than 30 international publications in the same on this topic. He was selected for a best paper award by the American Society of Civil Engineering in 2012. He has been active in the field for the last 20 years. He has over 40 publications in CFD, turbulence modelling, Naval Architecture and Oceanography. He has done more than 25 projects from both government organizations and private sectors. Most of his projects have been on CFD applications to Ocean Engineering and Numerical Ship Hydrodynamics. He currently serves on the panel of Marine Hydrodynamics for the Indian Naval Research Board, DRDO. He also serves as an advisor to NPOL, DRDO.

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Prof. Špiro Ivošević , University of Montenegro, Montenegro



Prof. Špiro Ivošević was born on 19th May 1971 in Kotor. He graduated from Mechanization and Transport

Systems at Faculty of Mechanical Engineering in Podgorica in 1994. Soon after that he enrolled at the Faculty of Mechanical Engineering postgraduate studies, where he obtained a Master degree in 2004.

In 2012 he obtained a title of PhD at the Faculty of Maritime Studies Kotor by defending a doctoral thesis named „The Analysis of structural degradation of ship’s hull“.

He started working as a teaching assistant at the Faculty of Maritime Studies in 1997. Since 2004, he has been engaged as an assistant on the following subjects: Ships Maintenance and Security, Ships Surveying Techniques, Ship Machinery Complex, Ship Auxiliaries Machines, Engineering Graphic, Ship Terotechnology, Mechanics and Theory of Risk and Maintenance.

He was promoted to Assistant Professor for subjects Ships Maintenance and Security, Ships’ inspection techniques and survey ad Computer and Engineering Graphic in 2013.

He gained the academic title of Associate Professor for the field of maritime sciences at the Faculty of Maritime Studies Kotor, University of Montenegro on 03rd July 2018. He gained the academic title of Full Professor for the field of maritime sciences at the Faculty of Maritime Studies Kotor, University of Montenegro on 19rd July 2023. Starting from 2005 he has performed the duties of the head of the quality system department at the Faculty. Since 2014 he was a vice dean for international education, and on from 25th September 2017 up to 25h of September 2023. he served as a Dean of Faculty of Maritime Studies Kotor. Prof Špiro Ivošević is an author of more than fifty papers published in relevant scientific journals, national and international conferences and he participated in many national and international projects (BLATERAL PROJECT Slovenia and Serbia, TEMPUS-MArED, HERD, HERIC-Edumar, EUREKA-PROCHA- SMA that took place at Faculty of Maritime Studies Kotor.

About Sutton Town

Sutton is the principal town in the London Borough of Sutton in South London, England. It lies on the lower slopes of the North Downs, and is the administrative headquarters of the Outer London borough. It is 10 miles (16 km) south- south west of Charing_Cross, and is one of the thirteen metropolitan centers in the London_Plan.

Sutton has the largest library in the borough, several works of public art and four conservation areas. It is home to several large international companies and the sixth most important shopping area in London, centered on SuttonHigh Street. Sutton railway station is the borough's largest, with frequent services to central London and other destinations, including Horsham. It is home to the Royal Marsden Hospital and the Institute_of Cancer_Research, where there are plans to create the world's second biggest cancer research campus. Sutton borough is among the highest performing education authorities in the country. In 2011 it was the top performing borough for GCSE_resultsin England.

About Venue

The Holiday Inn, London Sutton is situated in the Sutton town center. It is 5 minutes walking distance from the Sutton rail station. It is well connected with London Heathrow and Gatwick airport and 45 minutes drive from both the airports. It takes about 30 minutes from London Victoria and London bridge station to Sutton rail station. Lots of interesting places near holiday inn such as:

- ◇ Chessington World of Adventure
- ◇ Wimbledon All England Tennis Club
- ◇ Epsom Race course
- ◇ Hampton Court Palace
- ◇ Buckingham Palace
- ◇ Houses of Parliament
- ◇ London Eye

NETWORKING SESSION—WINE AND CHEESE

24 April 2025, 18:00-19:30

Holiday Inn London Sutton,

Gibson Street, Sutton, SM1 2RF



Photo of the Hotel - HOLIDAY Inn London, Sutton

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