One of the greatest concerns regarding the increase in international seaborne trade relates to pollution and greenhouse gas emissions from ships which are estimated to account for approximately 10% of all transport related emissions and 3.3% of total global CO₂ emissions. It is further estimated that these CO₂ emissions from shipping could account for between 12-18% of global CO₂ emissions by 2050 if no action is taken. To reduce such maritime emissions there are three different areas where possible reductions could be achieved. The first of these includes technical measures such as design improvements to hulls, engines, or propellers. Other technical options include the use of ‘cold ironing’ and the potential use of ‘clean fuels’ such as bio-fuels, nuclear power and other ‘green’ propulsion methods such as solar panels and sails. Market based methods include the use of instruments such as carbon taxes and emissions trading schemes, and also operational methods such as ‘slow steaming’ and the optimisation of shipping and related logistics networks.

LCS 2012 invites papers, from both industry and academia, concerned with any of the above topics. It is evident that in order to reduce shipping related greenhouse gas emissions, potential solutions come from a broad and diverse canvass of specialisms, and that an interdisciplinary approach is needed that addresses the entire shipping system (not just operators, but also users, suppliers and other stakeholders). The conference aims to facilitate the exchange of knowledge and the development of new ideas, and to further enhance collaboration between industry and academia.

Conference topics include:

- Interdisciplinary approaches to low carbon shipping
- Analysing and optimising the broader shipping system
- Energy efficiency through design and hull/propulsor interaction
- Retrofitting existing ships for energy efficiency
• Energy efficient conventional propulsion systems
• Alternative power sources and renewable energy sources for shipping
• Voyage optimisation
• Maintenance for energy efficiency
• Crew training and skill enhancement for energy efficiency
• Novel ship operation
• Onboard energy management
• Logistics optimisation
• Decarbonising the supply chain
• Fleet management for low carbon shipping
• Economics of energy efficiency and low carbon
• The role of ports in low carbon shipping
• Evaluating regulatory impacts on the shipping industry
• Measuring and mapping shipping’s emissions
• Interactions between shipping’s CO2 emissions and other environmental impacts

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Abstract Submission Guidelines:
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