

Maritime Institute @ NTU

Topic:

Design for Safety and Energy Efficiency: Multi-Disciplinary Optimisation

By:

Professor Dracos Vassalos, University of Strathclyde, UK

Monday, 02 December 2013

Lecture Theater 301, NTU@one-north campus, Executive Centre

1530 – 1600	Registration & Welcome Coffee / Tea
1600 – 1700	Seminar
1700 – 1730	Q & A
1730 – 1830	Networking Reception

About the Topic:

Recent environmental / energy efficiency legislation is likely to have a serious impact on ship design and operation for certain ship types. This, in turn, is expected to affect / undermine safety. To address this expectation rationally, necessitates the use of first-principles tools for assessing the performance (safety and energy efficiency) of the targeted ships in pertinent hazardous situations, aiming to determine limiting design and operational parameters to ensure satisfactory / optimum ship design. This, in turn necessitates the use of multi-disciplinary optimisation within an Integrated Design Environment to address the energy Vs safety 'balance' and to provide suitable recommendations / guidelines. This problem has surfaced recently, stemming directly from IMO and constitutes the kernel for on-going active research. This presentation delves into all pertinent issues, namely safety performance from a damage stability perspective, energy efficiency using dynamic energy modelling and safety / energy balance using multi-disciplinary design optimisation. Case studies are used to demonstrate practical implementation issues and to enhance understanding.

About the Speaker:



Dracos Vassalos is Professor of Maritime Safety in the Department of Naval Architecture and Marine Engineering of the University of Strathclyde and the Director of the Ship Stability Research Centre (SSRC), a world-leading centre of excellence on ship stability and safety. He is also a long-standing member of the UK delegation to IMO. His motto is "safety enhancement through innovation", an idea he has pursued single-mindedly in a career that spans over 35 years in industry and academia, promoting the use of scientific approaches in dealing with maritime safety. Currently, Professor Vassalos is Chairman of the International Standing Committee of the "Design for Safety" Conference, a theme instigated and promulgated by SSRC. He is also the Chairman of the Brookes Bell Group, a company offering one-stop-shop provision of maritime safety. Professor Vassalos received a Life Achievement Award from the Royal Academy of Engineering in 2011 and the Froude Medal from the Royal Institution of Naval Architects in 2012 for his life-long contribution to maritime safety.

Free admission! Seats are limited, please register early.

Click [here](#) to register

Registration closing date: 25 Nov 2013

For enquiries:

Please contact Ms. Rohayati at Tel: 6790 4818 or Email: rohayati@ntu.edu.sg

Scan the QR code to
register or visit us at
<http://mi.ntu.edu.sg>

