

## **Pre Conference Workshop – Faculty of Engineering**

Date – 02 August 2014

Venue - Dean's Conference Hall, 1<sup>st</sup> Floor, Engineering Faculty Building, KDU

Target Group – Professionals/academics in the field of Marine Engineering/Naval Architecture  
(a maximum of 50 participants will be accommodated on a first come first serve basis)

Registration Fee – SLR 2000/= per head

Refreshments (tea & lunch) will be provided

### **Session 1 (Morning) : Development of Underwater Vehicles**

#### Workshop Description

This session will cover the development of underwater vehicles, with special emphasis on remotely operated and unmanned marine vehicles and submarines will be the focus of this workshop. Modern trends in design and infrastructure development will be looked at. This will also be a forum for various stake holders, comprising of government sector, military and private sector to share their experiences and views in this area.

#### Resource Persons

**Prof Dev Ranmuthugala** is a Professor in Maritime Engineering at the Australian Maritime College, University of Tasmania. He is currently on secondment to the Defence Science and Technology Group (DSTG, Department of Defence) as Group Head, Hydrodynamics and Hydroacoustics. Dev has also served as Director (Ports and Shipping) Associate Dean (Teaching & Learning) and as Head of Department in Maritime Engineering and Vessel Operations over the past 20 years. Prior to joining AMC, he worked as a marine engineer and in the design and sales of piping systems. His research includes: experimental and computational fluid dynamics to investigate the hydrodynamic characteristics of underwater vehicles, behaviour of submarines operating near the free surface, stability of surfaced submarines, towed underwater vehicle systems, and maritime engineering education.

**Nirman Jayarathne** is a PhD candidate at the Australian Maritime College at the University of Tasmania in Tasmania. He an academic staff member of the Department of Marine Engineering at Kotelawala Defence University, Sri Lanka. He is an experienced Lecturer with a demonstrated history of working in the maritime industry. He is skilled in Naval Architecture.

## **Session 2 (Evening) : Emphasis of Human Factors for Ship Design**

### Workshop Description

The focus of this session will be on the Human Factor in ship design, purchase and handling. Discussions will cover aspects of human centered design of maritime workplaces, including supporting technologies. This will cover aspects including understanding of user needs and matching them to the existing and developing technologies and processes through improved collaboration and communication between designers, manufacturers and users of ships.

### Resource Persons

**Professor Margareta Lutzhoft** is a master mariner who is a Professor of Nautical Sciences and Deputy Director of National Centre of Ports and Shipping at Australian Maritime College (AMC) at the University of Tasmania. In this role she plans, applies for funding and leads appropriate projects with the focus on Human Factors in maritime safety. She has also served as an Associate Professor and researcher at Chalmers University of Technology, leading the research in the Maritime Human Factors research group at the Department of Shipping and Marine Technology, within the Lighthouse competence center. Her research interests include human-centered design, the effects of new technology and resilience engineering. She has also performed consultancies for many professional bodies such as The Swedish Accident Investigation Board, SMA, etc. Professor Lutzhoft has a wealth of academic experience and has published many prominent research articles.

**Apsara Abeysiriwardhane** is a PhD candidate at the Australian Maritime College at the University of Tasmania in Tasmania.