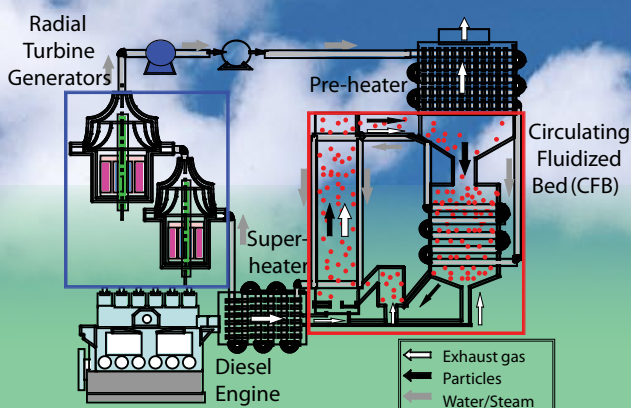


# New Technology Initiatives for Emission Reductions

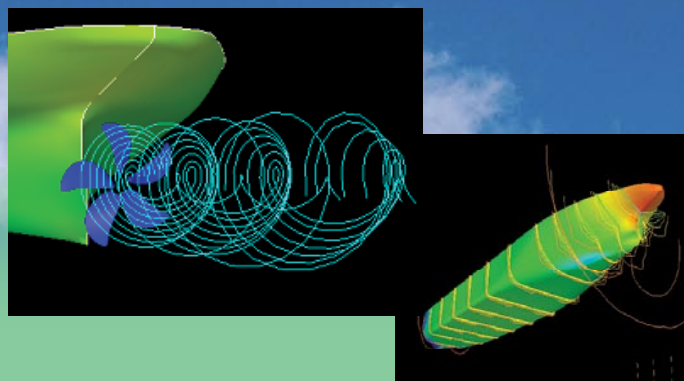
Wednesday 10th February 2010

16.30 Coffee  
16.45 Seminar Presentation  
18.00 Reception

IMarEST Headquarters, 80 Coleman Street, London EC2R 5BJ



CFB Heat recovery system and radial turbine generators



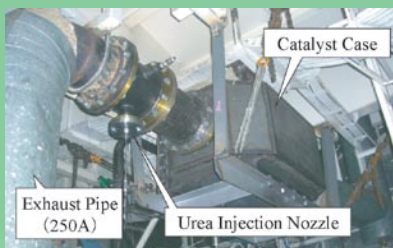
Propulsive Performance Simulation by CFD (Hull & Propeller)

## Environmental Studies at the National Maritime Research Institute, Japan

### Dr. Tetsuya SENDA

Senior Director for Research,  
Director for Marine Environment Assessment Department,  
National Maritime Research Institute

Environmental studies carried out at the National Maritime Research Institute (NMRI) are briefly introduced. SCR (Selective Catalytic Reduction) will be a promising NOx reduction technology to meet the Tier 3 regulations of MARPOL Annex VI. The present situations of the development of SCR system for ships at NMRI are addressed particularly on the effects of sulfur content in the fuel and ammonia slip issue. Another topic is an energy-saving technology by heat recovery from engine exhaust gas. Corrosion of water tube by sulfuric acid is critical to the heat transfer efficiency. Circulating fluidized bed is applied to achieve desulfurization from the exhaust gas and more efficient heat recovery.



## Our Challenge to Reduce CO2 Emission from Ships

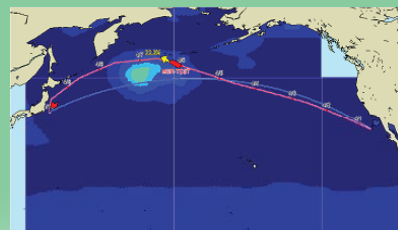
### Dr. Osamu NIHO

Deputy Director, Deputy General Manager,  
Business Development & Innovation Hq.,  
MITSUI ENGINEERING & SHIPBUILDING CO., LTD.

Ever stronger demand for preventing global warming urges us to develop an advanced ship with significantly reduced CO2 emission.

To achieve this objective, there are two technical ways: One is an approach by hardware such improvements as hull form, main engine performance etc., and the other is by software including ship operations.

We, Mitsui Engineering & Shipbuilding Co., Ltd., have a wide-ranging product portfolio composed of shipbuilding, diesel engine, and IT activities and so on to make a new design of an advanced ship come true. Several specific measures, which are now being tackled, are presented and some possible future technologies will be introduced.



Navigation Route Optimization

**Attendance is free of charge**

For more details contact the **Japan Ship Centre**; Second Floor, 6 Lloyd's Avenue, London EC3N 3AX

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