

RINA

Royal Institution of Naval Architects



SHIPBUILDING
ICCAS
Portsmouth • 2007

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THE INTERNATIONAL CONFERENCE ON COMPUTER APPLICATIONS IN SHIPBUILDING (ICCAS 2007)

18-20 SEPTEMBER 2007
PORTSMOUTH, UK

ICCAS 2007 • ICCAS 2007 • ICCAS 2007

ICCAS 2007 will be the 13th International Conference on Computer Applications in Shipbuilding. The 2007 conference will be held in Portsmouth, UK, on 18-20 September 2007.

The conference will review operational experience from existing computer applications in the design and build of ships and offshore structures. It will also examine the advances in Information Technology which have contributed to increased productivity in both shipbuilding and maritime operations; including increasing co-operative working between shipyards, marine equipment and system manufacturers, engineering partners and shipping companies.

The conference will attract a large international audience and provide a forum and means of professional development for all parties interested in computer applications in shipbuilding.

Venue

The conference will be held at the University of Portsmouth, Portland and Richmond Buildings. Travel information and directions to the venue will be displayed on the RINA website in due course (www.rina.org.uk/iccas2007).

Portsmouth is a historic naval city located on the south coast of England, in close proximity to the Isle of Wight. The home of the Royal Navy and Historic Dockyard, Portsmouth has a great deal of marine heritage. The 'Mary Rose' Museum, 'HMS Victory' and 'HMS Warrior' are on view.



(Portsmouth Harbour)

Deadlines and Key Dates

Deadline for submission of papers (Authors)	6 August 2007
Early Registration discount before	20 August 2007
Pre-registration and evening reception	17 September 2007 (15.00 - 19.30)
ICCAS 2007	18-20 September 2007

Social Events / Sponsors:

18th September: Cocktail reception to be held at the 'Mary Rose' Museum and sit-down dinner at the Historic Dockyard, Boathouse No.7, kindly sponsored by Aveva.

18 September: Lunch, kindly sponsored by Intergraph

19 September: Cocktail reception to be held at the conference venue, kindly sponsored by Lloyd's Register.

21 September: Optional visit to the Portsmouth VT Shipyard*.

* If you would like to attend the shipyard visit, please complete the tick box on the back cover when registering. We require a list of persons in advance so that security clearance can be obtained.

Language

The Language for the ICCAS 2007 conference is English

Sponsorship & Exhibition

This conference provides an excellent opportunity to increase your organisations profile and to network with a highly focused audience. A number of cost effective sponsorship options are available, including various conference sponsorship packages, exhibition space and literature distribution. If you are interested in promotional opportunities, please contact the Conference Organiser to discuss your individual requirements.

International Programme Committee:

Name	Company/Organisation	Country
Kaj Johansson	Aveva	Sweden
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Joachim Brodda	Balance Technology Consulting	Germany
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Robert Dow	University of Newcastle Upon Tyne
Jeff Owen	Weir Strachan & Henshaw
Ben Dobson	DML Defence Systems
Paul Roberts	Lloyd's Register

Further Information:

If you have any questions regarding this conference, please contact the RINA Conference department on:

Tel: +44 (0)20 7235 4622

Fax: +44 (0)20 7259 5912

Email: conference@rina.org.uk

Website: www.rina.org.uk/iccas2007



PAPERS ACCEPTED FOR ICCAS 2007 - PORTSMOUTH, UK.

Management Information Systems - The Cost of Customisation

M. Evans, Incremental Ltd- Software for ship repair, UK.

Research into the Use of Computer Aided Graphics in Preliminary Ship Design

Prof D. Andrews and R. Pawling, University College London, UK

The Measurement and Prediction and Welding Distortion using ANN and Photogrammetry

M.P. Lightfoot and G.J. Bruce, Newcastle University, UK

Integrating Rules and Practices with Early Design Process.

I. Kuutti, Napa Ltd, Finland

Validation of Simulated Dynamic Interface Testing as a Tool in the Forecasting of Air Vehicle Deck Limits and Deck Landing Aids in Initial Ship Design

Dr. Bernard Ferrier, BMT Syntek Technologies, Inc, USA.

Dr. John Duncan, Sea Systems Group - Defence Procurement Agency - MOD, UK

R. Bruce Lumsden, DSTL, UK

A Ship Design Tool Using Genetic Algorithms

S. Vasudevan and Prof S. Rusling, University College London, UK

Hydrodynamic Optimisation of a Naval Support Ship Using Advanced Numerical Design Methods"

S. Hunt, BAE Systems, UK.

Semantic feature modelling for conceptual design of warships

R. ter Haar, Delft University of Technology / TNO Defence

W.F. Bronsvort,, Delft University of Technology

K.J. de Kraker, TNO Defence,

Reporting Strategies for a Competence-oriented Management Information System

C. Nedess, A. Friedewald, U. Kaniess, M. Kurzewitz, Hamburg University of Technology ,Germany.

Automatic Structured Surface Mesh Generation on Ship Hull Surfaces for Hydrodynamic Analysis

R. Bronsart and G. Knieling, University of Rostock, Germany.

Replicated Databases. The Answer to Collaborative Design

F. Alonso, C. González, and L. Pastor, SENER Ingeniería y Sistemas S.A, Spain.

An Innovative Integrated Tool for HVAC Design

R. de Góngora, SENER Ingeniería y Sistemas S.A, Spain.

SPARS

R. Bolton, SPARS Consortium, USA.

Space Management in Ship Early Design

M. A. Carballeira Romero, NAVANTIA. Spain.

Cost Assessment at Concept Stage Design using Parametrically Generated Production Product Models

M. Bole, Graphics Research Corporation Ltd, UK.

Development of an Integrated Simulation Framework and Its Application to Shipbuilding Process Planning

Ju-Hwan Cha, Seung-Ho Ham and Kyu-Yeul Lee, Seoul National University, Korea.

Myung-Il Roh ,University of Ulsan, Korea.

Kwang Phil Park and Heung Won Suh, Daewoo Shipbuilding & Marine Engineering Co. Ltd, Korea.

A Knowledge Based System for Quality Checking of Ship Product Model Data

W. Geitmann: Aker Yards Germany

Th. Koch: Atlantec-es

W. Grafe: Germanischer Lloyd, Germany

H. Hinrichs: FR. Lürssen Werft, Germany

H. Matthiesen: SMK Ingenieur Büro

R. Bronsart: University of Rostock, Germany

E-Learning Infrastructure in Naval Architecture and Ocean Engineering

M. Abdel-Maksoud, University of Duisburg-Essen, Germany

R. Bronsart and M.C. Wanner, University of Rostock, Germany

G. Clauss, Technical University Berlin, Germany

W. Fricke and T. Rung, Hamburg University of Technology, Germany

U. Glowalla, University of Gießen, Germany.

Simulation of Welding Deformation for Accuracy Management in Shipbuilding

M. Onoe, K. Uno and K. Mizutani, Universal Shipbuilding Corporation, Japan.

Development of an Automated Line Heating System for Fabrication of Curved Hull Plates

JungSeo Park and JongGye Shin, Seoul National University, Korea.

KwangHee Ko, Gwangju Institute of Science and Technology, Korea.

ChungMin Hyun and YoungChil Doh, Samsung Heavy Industries Co.Ltd, Korea.

From Design to Analysis - Integrated Design and Strength Assessment

A.C. Damhaug, J. Strang and M. Schult, DNV Software, UK

Development of Sub-Assembly Welding Robot System in Shipbuilding.

Ho-Joong Youn, Daewoo Shipbuilding & Marine Engineering Co, Ltd, Korea.

A Knowledge Management Framework for Marine Propeller Design

K. Hiekata, The University of Tokyo, Japan.

An approach to scheduling problems of ship-building lines based on discrete-event system theory

*Prof. H. Kajiwara, Kyushu University, Japan.
Y. Nakao, Oshima Shipbuilding CO, Ltd, Japan.*

Drafting Tools 'Magic Sketch' Implemented on Tribon M3

Hyeong-Cheol Kim, DSME, Korea.

Engineering Process Management System for Commercial Ship Design

Kwang Phil Park, DSME, Korea.

Integrated Web-based Information Management System for DSME Offshore Project.

Hyung Tae Cho, DSME, Korea.

An Object-Oriented Approach to Programming Assembly Machines in The Ship Building Industry.

G. Tewkesbury, Ichtus, UK.

Improving Robotic Welding in the Shipbuilding Industry.

G. Lambert, UK

Integrated 3D Design Environment for Early Design Stage

N. Ueda and S. Takeda, Mitsubishi Heavy Industries, Ltd, Japan.

Process Innovation along the Steel Supply Chain Between DSME and Global Steel Company with the Extended-ERP System

InIl-Kim, HeeChung-Park, SangKuk-Han and Seong-hwan Han, DSME, Korea.

TaeWook-Kim and HeeYeol-Lee, POSCO, Korea.

Enhanced Ship Design Computer Tools to Improve Passenger Comfort and Crew Performance.

J. M. Ross, Alion/Proteus Engineering, USA

Crew Performance Modelling Method for Evaluating New Concepts and Designs of Bridge Operation

Ryo Kakuta and Hiroyuki Yamato, University of Tokyo, Japan.

Hideyuki Ando, MTI (Monohakobi Technology Institute) Japan.

Efficient Design and Coordination of Outfitting Material

A. Metsä and C. Ridgewell, Napa Ltd, Finland

Use of IT for Knowledge Management in Japanese Shipyard

M. Sonda and Y. Sasaki, Mitsubishi Heavy Industries, Ltd, Japan.

A Client Server System to Increase Productivity in Ship Detailed Structural Design

G. Schulte: Aker Yards, Germany

D. Gimperlein: Thyssen Krupp Marine Systems, Germany.

R. Bronsart, A. Geitmann, and K. Stenzel: University of Rostock, Germany.

A Knowledge Management and Process Framework Supporting Engineering Projects

Dr O. C. Astrup, DNV Software, Det Norske Veritas, Norway.

Integrated Product Development using Global Workshare

M. Polini, Intergraph Corporation, USA

Technology Enablers for Computer-Aided Fleet Operation

C. Schmidt, Odense Steel Shipyard, Denmark.

Rule-based Product Development

K. Cochran, Intergraph Corporation, USA

Marine Enterprise Solutions

T. Szoka, Intergraph Corporation, USA

Experienced Marine Design and Data Reuse

Y. Limon-Duparcmeur, Intergraph Corporation, USA

Management System for Procurement of Paint Based on the Ship Product Model

K. Aoyama; The University of Tokyo, Japan

M. Matsuo and S. Nakao; Namura Shipbuilding Co.Ltd, Japan.

Disassembling Process Planning System of Ship-Hull considering Safety and Environmental Cost

M. Motoyuki, K. Aoyama, T. Koga, The University of Tokyo, Japan.

Managing Technology with TeMAP

B. Mitchelmore, BMT Defence Services Ltd, UK.

Choosing CAD tools for the 21st Century.

D. Murry and J. McLauchlan, Surface fleet Solutions, BAE Systems, UK

C. Sear and B. Dunseath, Submarine Solutions, BAE Systems, UK

Trial Application of FE Simulations in Ship Collisions within the Risk Assessment of Oil Spills from Oil Tankers

T. Nakai, Y. Uruguchi, T. Arima, S. Harada, A. Rahim, Nippon Kaiji Kyokai, Japan.

Processes - A Basis for Capturing Knowledge

J. Martin and A. Oddie, BAE SYSTEMS, Submarines Solutions, UK.

Shipbuilding Scheduling Problems Solved By Algorithms as a Weighted Constraint Satisfaction Problem.

M. Matsuda, Y. Makino, Y. Nakama and T. Nishimura, Sumitomo Heavy Industries Marine & Engineering, Japan.

Collaborative Design, Visualisation and Manufacturing Environments for shipbuilding partnerships

N. Rodliffe, M. Donoghue, S. Blakeway and M. Campbell, PTC, UK.

Latest Developments in Weld Process Modelling

R Lawrence and R Dennis, Frazer-Nash Consultancy Ltd, UK.

An Innovative Approach for Improved Availability of Company Knowledge

S. Wurst and M. Lehne, BALance Technology Consulting GmbH, Germany.

A Life Cycle Management Guidance System for Maritime Industry

H. Gsell and H. Kohn, Bremen Institute of Industrial Technology and applied work science, Germany.

Improvements in Hull Integrity by the use of 3rd Generation Maintenance Management Software.

Prof Duperron Marangon Ribeiro, Federal University of Rio de Janeiro / PhDsoft, Brazil.

Shape Optimization of a Ship Hull Bow

C.E. Baumann, Altair Engineering Inc, USA.

Efficient Application of CFD-Based Loads for the FEM-Analysis of Ship Structures by means of GL ShipLoad

H. Eisen and C. Cabos, Germanischer Lloyd, Germany.

Product Information System to drive the Management of Naval Programs

T. Le-Gal, DCN, France.

Optimizing Product Configuration Decision Times in Shipbuilding

R. L. Storch, Industrial Engineering, University of Washington, R. F. Lu, The Boeing Company and Industrial Engineering, University of Washington, and T. D. Petersen, Aalborg Industries, USA.

Using Design of Experiments to Set Submarine Concept Design Requirements

*M Arvidson and D Nagy, Naval Sea Systems Command, USA
C Mahonen and Y Wing, Electric Boat Corporation, USA*

Development of an Integrated Market Forecasting Model for Shipping, and Shipbuilding Parameters

R. Sharma and O. P. Sha, Institute of Technology, India.

Photogrammetry - A Picture of the Future

D. Milne (DRDL) and G. Pailin (Offset Services), Devonport Royal Dockyard Limited, UK

A Hybrid Propeller Blade Strength Analysis

Dr.-Ing. G. Deliporanides, Greece.

Providing an Optimised, Sustainable Future Software Platform to Support Integrated Computer Aided Assessment Against the Lloyd's Register Rules.

P. Roberts and T. Sonmez, Lloyd's Register, UK.

ShipRight SDA - An Integrated Finite Element Solution for the Common Structural Rules

S. Wong, L. Yu, M. Le Callet and N. Gong, Lloyd's Register, UK

Computer Aided Approval - from Vision to Reality

S. Bade, U. Eberwien, W. Grafe and Rasmus Stute, Germanischer Lloyd, Germany.

Per-Olof Nilsson, Aveva, Sweden.

"Open PLM" Lifecycle Information Management for the Shipbuilding Industry.

M. Gwyther, AVEVA Solutions Limited, UK

The role of a Schematic Model for shipbuilding System Design coordination

Henrik Hultin, Per-Olof Nilsson, Per-Ola Åkesson and Bruce Douglas, AVEVA AB, Sweden.

The Inclined Keel Hull Concept and its Efficient Application Using Alternative Bulbous Bow Forms

K-C Seo, M. Atlar and E. Mesbahi, Newcastle University, UK.

H-J Kim and H-H Chun, Pusan National University, Korea.

B. Danisman and O Goren, Istanbul Technical University, Turkey.

Approaches Developed to Support the Use of Tribon Initial Design in the Teaching of Ship Design at Newcastle University.

P. Wright, Newcastle University, UK.

K. Hutchinson, Babcock Design & Technology - Armstrong Technology, UK.

G. White, Independent Naval Architect, UK.

A RANS Code for flow simulation of marine propellers.

M.T. Rahmati, University College London, UK.

Distributed Design with Large Product Data Models.

P. Cahill, ShipConstructor Software Inc, USA.

The use of a Complement Generation and Analysis Tool within Ship Design.

H. Morley and P. Wotton, Quintec Associates, UK.

Schedule Optimization and Visualization Using ARGOS.

R.S. Jones, Optimization Technology Systems (OTS) Inc.

