Monday, 25 March 2019

Session: Zen & the Art of CA Ship Design – Chair: Son

08:30h Gaspar (NTNU)
A Perspective on Past, Present and Future of Computer-Aided Ship Design

09:00h Sears, Radosavljevic, Van Os (Siemens)
3D Conceptual Design of Families of Ships

09:25h Bole (Aveva)
A Strategy for Closely Integrating Parametric Generation and Interactive Manipulation in Hull Surface Design

09:50h Seppäla (Cadmatic)
Drawingless Production in Digital Data-Driven Shipbuilding

10:15h Coffee Break

Session: Optimizers do it better – Chair: Goodwin

10:45h Antognoli, Ficini (Univ Roma Tre), Bibuli, Diez, Durante, et al. (CNR)
Hydrodynamic Design Procedure via Multi-Objective Sampling, Metamodeling, and Optimisation

11:00h Sobey, Blanchard, Grudniewski, Savasta (Univ Southampton)
There’s No Free Lunch: A Study of Genetic Algorithm Use in Maritime Applications

11:35h Van Dijk, Boogaart (Nevesbu), De Vos (TU Delft)
Automatic Selection of an Optimal Power Plant Configuration

12:00h Harries (Friendship Systems), et al.
Approach to Holistic Ship Design: Methods and Examples

12:30h Lunch – Irish Stew

Session: All Simulations Great and Small – Chair: Sears

13:45h MacPherson (Hydrocomp)
Coupling of Multi-Order Tools for Practical and Effective Simulation

14:10h Goodwin (Altair), Dodkins (BAE Systems Maritime)
Simulation Driven Structural Design in Shipbuilding

14:35h Donohue, Shields, Goodrum, Sypniewski, Singer (Univ of Michigan)
A Method for Rapid Generation and Analysis of Physically Plausible General Arrangement and Distributed System Configurations in Early Stage Ship Design

15:00h Jeong, Shen, Kim, Min, Shin (SNU), Lee (Xinnos), Woo, Lee (KMOU)
Discrete Event Simulation for Strategic Shipyard Planning

15:25h Coffee Break

Session: VR-tigo – Chair: Zerbst

15:55h Spencer (Stirling Labs)
The Future of the Ship Design: Collaboration in Virtual Reality

16:20h Goh (Knud E. Hansen)
Use of Virtual Reality Tools for Ship Design

16:45h Van der Tas, De Meester (DEKC Maritime)
Communicating Ship Designs via Virtual Reality

17:10h Cassar, Bradbeer, Thomas (UCL)

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Tuesday, 26 March 2019

Session: Come Together, technologies – Chair: Harries

09:00h Ommani, Bjermeland, Aksnes, Luxcey, Reinholdsen (Sintef Ocean)
Application of Continuous Integration in Decision Support and Integrity Management Systems of Offshore Structures

09:25h Sieranski, Zerbst (PROSTEP)
Automatic Geometry and Metadata Conversion in Ship Design Process

09:50h Nowak, Stakkeland (ABB Marine)
Implementation of a Data Driven, Iterative Approach to Building Digital Twins

10:15h Coffee Break

Session: Digital Twin – Chair: Bole

10:45h Woo, Lee, Kim (KMOU), Lee (Xinnos), Shin (SNU)
Simulation-Based Shipbuilding Management System as Keystone for the Digital Twin Yard

11:10h Jones, Goodwin (Altair)
The Development of the Intelligent Digital Twin for Autonomous Navigation Vessels

11:35h Hulkkonen, Manderbacka (Napa), Sugimoto (ClassNK)
Digital Twin for Monitoring Remaining Fatigue Life of Critical Hull Structures

12:00h Drazen, Mondoro, Grisso (NSWC-CD)
Use of Digital Twins to Enhance Operational Awareness and Guidance

12:30h Lunch – Beef Lasagna

Session: Tutti Frutti – Chair: Perez

13:45h Hollister (New Wave Systems)
OpenCalc: An Open Source Programming Framework for Engineering

14:10h Wireman, Goodrum, Sypniewski, Singer (Univ of Michigan)
Leading Indicators of Design for Launch/ Recovery of Naval Autonomous Vehicles

14:35h Colling, Hekkenberg (TU Delft)
Multi-Scenario Simulation Transport Model to Assess the Economics of Semi-Autonomous Platooning Concepts

15:00h Kooij, Hekkenberg (TU Delft)
Towards Unmanned Cargo-Ships: The Effects of Automating Navigational Tasks on Crewing Levels

15:25h Coffee Break
Wednesday, 27 March 2019

Session: Seeing Eye-to-Eye with A.I. – Chair: Seppälä
15:55h Deul, Hoek, Moussault, Nijdam, Alblas, Hekkenberg (TU Delft)
Expert System for Cost Estimation in Shipyard Steel Assembly
16:20h Munoz, Perez (Sener)
A.I. Technologies Applied to Naval CAD/CAM/CAE
16:45h Stensrud et al. (DNV GL et al.)
Automating Inspections of Cargo and Ballast Tanks Using Drones
17:10h Chatzikokolakis, Zissis, Vodas (Marine Traffic), et al.
BigDataOcean Project: Early Anomaly Detection from Big Maritime Data
17:35h Weymouth (Univ Southampton)
Roll Damping Predictions using Physics-Based Machine Learning
18:00h Announcement of Compit 2020

Session: Digital Training – Chair: Köhler
09:00h Bertram, Plowman (DNV GL)
A Hitchhiker’s Guide to the Galaxy of Maritime e-Learning
09:25h Kil, Byun, Lee, Son (Korean Register)
Development of Real-Time Emergency Response Training Simulator for Collective Ship Crews Based on Virtual and Mixed Reality
09:50h Gehrke, Köhler (benntec Systemtechnik)
Modular and Interactive Simulation Training Environment (SimTE) for Customer-Specific Maritime Training
10:15h Coffee Break

Session: Smooth Operator – Chair: Nowak
10:45h Cady (Sirehna)
Microservices to Reduce Ship Emissions?
11:10h Son, Kim, Jo, Lee (Korean Register), Oh, Roh (SNU)
Big Data Analysis Application: Brake Power and Fuel Oil Consumption Estimation based on Public History Voyage Data of Ships
11:35h Eriksen (Svendborg Int. Mar. Academy)
Quantifying Value vs. Cost in Digital Ship Operations Services
12:00h Uzun, Demirel, Coraddu, Turan (Univ Strathclyde)
Life-cycle Assessment of an Antifouling Coating based on a Time-Dependent Biofouling Model
12:30h Lunch - Chicken Curry & rice
Lemon & passionfruit tart

Session: Autonomy now! – Chair: Bons
13:45h Porathe (NTNU)
Autonomous Ships and the COLREGs: Automation Transparency and Interaction with Manned Ships
14:10h Wahlström (VTT), Forster (UCSD), Karvonen, Puustinen, Saarioluoma (JYU)
Perspective-taking in Anticipatory Maritime Navigation – Implications for Developing Autonomous Ships
14:35h Berge, Hagaseth (Sintef), Kvam (Kongsberg Seatex)
Hull-to-Hull Positioning for Maritime Autonomous Surface Ship (MASS)
15:00h Steidel, Hahn (Offis)
MTCAS: An Assistance System for Collision Avoidance at Sea
15:25h Coffee Break

Session: Unmanned Ships on the Horizon – Chair: Cabos
16:20h Eriksen (Svendborg Int. Mar. Academy)
Autonomous Ships - Changing Perception and Expectations
16:45h Medhaug (Norwegian Maritime Administration)
Future of Autonomous Shipping from an Administration Point of View
17:10h Walther, Schulte, Jahn (Fraunhofer CML)
Shoreside Assistance for Remote-Controlled Tugs
17:35h Yan, Ma, Liu, Wang (Wuhan Univ. of Technology)
Applying the Navigation Brain System to Inland Ferries
19:00h DNV GL Dinner
Red onion, tomato & basil tartlet
Half Honey Roast Duck with apricot & cranberry stuffing, redcurrant jus
Roast Irish Sirloin with Yorkshire pudding, roast potato & creamy peppercorn sauce
Eton Mess
Irish Coffee
Vegetarian alternative available if booked by 11.3.2019

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