Monday, 14 May 2018

Let Me Challenge your Design Paradigms – Chair: Koelman
09:00h Andrews (UCL)
Does the Future Ship Designer Need to be a Human Factors Expert?
09:25h Veelo, Koelman (SARC)
Fitting Watertight NURBS Patchworks over Irregular Curve Networks with LEANURBS
09:50h Ebrahimi, Brett, Garcia (Ulstein International)
Fast-Track Vessel Concept Design Analysis (FTCDA)

10:15h Coffee Break

Game Changers in Design – Chair: Van Os
10:45h Gaspar (NTNU)
Data-Driven Ship Design
11:10h Koch, Kreutzer, Roppelt (Atlantec Enterprise Solutions)
Cloudless Skies in Early Design?
11:35h Cassetta (Azimut Yachts), Fischer (COSTFACT)
Parametric Cost Prediction by Azimut Yachts
12:00h Son, Lee, Park, Lee (Korean Register)
Mobile Visualization for Finite Element Model and Assessment Result of Whole Ship

12:30h Lunch - Risotto with truffle cream and grana shavings
Smart Simulation – Chair: Gaspar
13:45h Harries, Lorentz, Palluch (Friendship Systems), Praefke (ISA Propulsion)
Application of Propeller Modeling and Design via CAESES
14:10h MacPherson (Hydrocomp)
A Highly-Efficient Propeller Actuator Disk Replacement
14:35h Fonseca, Gaspar (NTNU), Ryan, Giles (UCL)
An Open and Collaborative Object-Oriented Taxonomy for Simulation of Marine Operations
15:00h Morais, Waldie, Larkins (SSI)
The Digital Twin Journey

15:25h Coffee Break

Digital Twins, Really? – Chair: Perez
15:55h Cabos, Rostock (DNV GL)
Digital Model or Digital Twin?
16:20h Van Os (Siemens Industry Software)
The Digital Twin throughout the Lifecycle
16:45h Niepert, Grau (Prostep)
Model-Based Class Approval and Site Inspection
17:10h Moser, Astrup (DNV GL)
Approaching Design Review by Classification Society based on Digital Information Derived from the Customer’s Design Models
17:35h DNV GL Compit Award 2018 given to Stefan Harries

Tuesday, 15 May 2018

Boldly Exploring Design Spaces – Chair: Harries
09:00h De Vos, Stapersma (TU Delft), Duchateau, Van Oers (DMO)
Design Space Exploration for onboard Energy Distribution Systems
09:25h Wackers, Queutey, Visonneau (ECN), Pellegrini, Serani, Diez (INSEAN)
CFD-Based Shape Optimization under Limited Computational Resources – A Study on Adaptive Multi-Fidelity Metamodeling
09:50h Van der Ploeg, Schuiling (Marin)
Improving an Already Optimized Ship by Making its Stern Asymmetric

10:15h Coffee Break

Smart Yards – Chair: Niepert
10:45h Gunawan, Hamada, Ouchi (Hirosima Univ.), Yamamoto, Sueshige (Tsuneishi)
Optimization of Part Arrangement in Engine Room
11:10h Fischer, Sender, Roisch (Fraunhofer IGP), Flügge (Univ. Rostock)
Capturing As-Built Building Progress Data for Efficient Control of Outfitting Processes in Shipbuilding
11:35h Jeong, Kim, Min, Shin (SNU), Woo, Lee (KMOU), Lee (Xinnos), Ryu (Inha Tech.)
Shipyard DES Simulation Framework and its Applications
12:00h Woo, Choi, Kim, Nam (KMOU), Jeong (SNU), Lee (Xinnos)
Machine Learning in Ship Production

12:30h Lunch - Risotto with salmon and Ligurian pesto
Hazelnut parfait
Big Data & Machine Learning – Chair: Son
13:45h Perez, Munoz (SENER), Gutierrez (IBM)
Design Rules Evaluation through Technologies of Treatment of Big Data
14:10h Erikstad (SAP Fedem)
Design Patterns for Digital Twin Solutions in Marine Systems Design and Operations
14:35h Zou (VTT)
Intelligent Design and Operation of Ship Energy Systems combining Big Data and AI
15:00h Cepeda, Premoli, De Oliveira, Caprace (UFRJ)
Estimating Ship Emissions Based on AIS Big Data

15:25h Coffee Break

A Different Game thanks to VR & Co. – Chair: Morais
15:55h Bertram, Plowman (DNV GL)
Virtual Reality for Maritime Training – A Survey
16:20h Friedewald, Meluzov (TUHH)
Modular Authoring of Augmented-Reality-based Service Instructions
16:45h Kil, Son, Lee (Korean Register)
Development of Multi-Purpose VR Simulator for a Ship from 3D CAD Model
17:10h Jacquenot, Maisonneuve (Sirehna), Laval, Bouju (Naval Group)
Virtual Reality in the Field of Numerical Marine Simulation
17:35h Announcement of Compit 2019

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Wednesday, 16 May 2018

**Smart Navigation** – Chair: Stark
09:00h  Kano (NMRI), Endo (NPO Marine Technologist)
On the Operator’s Navigation Indicators – From Collecting Data to Operational Evaluation

09:25h  Orihara, Yoshida (JMUC)
Weather Routing Simulation as a Tool for Evaluating Ship Performance in Operation

09:50h  Orlandi, Benedetti, Mari (LaMMA), Costalli (Aleph)
Sensitivity Analysis of Route Optimization Solutions on Different Computational Approaches for Powering Performance in the Seaway

10:15h **Coffee Break**

**Achtung, Baby!** – Chair: Cabos

10:45h  Procee, Borst, van Paassen, Mulder (NHL)
Using Augmented Reality to Improve Collision Avoidance and Resolution

11:10h  Brinkmann, Abdelaal, Hahn (University of Oldenburg)
Vessel-in-the-Loop Architecture for Testing Highly Automated Maritime Systems

11:35h  Friebe, Casanova, Le Gallic, Rolinat, Waller (Åland Univ.)
Situational Awareness and Obstacle Avoidance for a Wind Propelled Marine Research ASV

12:00h  Schubert, Gluch, Benedict, Kupas, Hagendorf, Simanski (Univ. Wismar)
Conception of Navigation Assistance System Integrating New Sensor Technologies and Model Based Prediction

12:30h **Lunch** - Maccheroncini pasta, sausage ragout on broad bean cream
Passito wine panna cotta

**Unmanned Ship on the Horizon** – Chair: Zou

13:45h  Lind, Bergmann, Hägg (RISE Viktoria), Karlsson, Siwe (SMA), Watson (Univ. Georgia)
Sea Traffic Management – The Route to the Future

14:10h  Merenluoto (DIMECC)
One Sea: Steps towards Autonomous Maritime Operations

14:35h  Matsuo (NMRI)
Technology Mega Trends That Will Change Shipbuilding

15:00h **Coffee Break**

**Aye, Aye, A.I.** – Chair: Plowman

15:30h  Bertram (DNV GL)
Demystifying Artificial Intelligence for Maritime Applications

15:55h  Gkerekos, Lazakis (Univ. of Strathclyde), Papageorgiou (Lomar Shipping)
Leveraging Big Data for Fuel Oil Consumption Modelling

16:20h  Xie, Hamre, Stensrud, Raeissi (DNV GL)
Automatic Detection of Vessel Cracks in Drone-Based Inspections Using Convolutional Neural Networks

16:45h  Lewis (Eauligo)
*Beeswarm Inspired Cooperative Robotics and Augmented Reality for Seafloor Exploration*

**19:00h DNV GL Dinner**

Aperitif – Prosecco and nibbles
Fresh cheese wrapped in speck, red chicory and summer truffle vinaigrette
Risotto with truffle cream and grana shavings
Tagliata di Manzo rucola e grana (strips of fillet of beef and rocket)
Semifreddo agli amaretti e coulis al cacao (macaroon parfait)
Wine & water

Vegetarian alternative available if booked by 11.5.2018

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