Tuesday, 23 May 2023 Session Chair: Wilfried Abels

- 09:00h <u>Masui</u>, Seppälä, Son, Huotari (NAPA) *Collaborativa Singla Model Design Platform for Shing o*
- Collaborative Single-Model Design Platform for Ships of Tomorrow 09:25h Kannengießer (PROSTEP)

Enable the Best Shipbuilding Toolset

09:50h Gualeni, Petacco (Univ. Genoa), <u>Zini</u> (Fincantieri) The Role of the Digital Twin for a Ship Life Cycle Perspective: A Focus on Naval Vessels

10:15h coffee break

Session Chair: Eva Ioannou

- 10:45h <u>Dahlke</u> (Helmut-Schmidt-University), Schmelzer (NVL) Incentives to Holistic Methodology and Computer Aided Tool Support in Naval Vessels Design
- 11:10h <u>Astrup</u>, Aae, Grønlie (DNV), Uyanik (AVEVA), Gigernes (Kongsberg) Enhancing the 3D Approval Process using Functional Zones in Ship Design
- 11:35h <u>Gusani</u> (Meyer Turku), Radonić (AITAC), Puurula (RSD) OCX Standard and Structural Model Reuse in the Shipbuilding Design
 12:00h Zerbst (PROSTEP)

OCX on the Way from Research to Industry Practice

12:25h Lunch

Session Chair: Ludmila Seppälä

- 13:30h Ahmed, <u>Harries</u> (Friendship Systems), Lohse, Salecker (NAVASTO) Parametrics, Simulation, DoE and Machine Learning for the Design of a Planing Boat
- 13:55h <u>Hildebrandt</u>, Albert (NUMECA), Carugno (Gloss Design), Migeotte (Icarus Marine), Harries, Von Zadow (Friendship Systems) *Optimisation of an Electric Catamaran in the Early Design Stage*
- 14:20h <u>Walker</u>, Coraddu, Oneto (TU Delft) *A Decoupled Approach to AI-based Design and Optimization of the Delft Systematic Yacht Hull Series*

14:45h coffee break

Session Chair: Thomas Hildebrandt

- 15:15h <u>Erikstad</u> (NTNU), Bekker (Stellenbosch Univ.), Garcia Agis (Ulstein) Designing Engineering Services Based on Digital Twins – An Arctic Navigation Case
- 15:40h Brahan, DeNucci, <u>Glivar</u> (U.S. Coast Guard) Numerical Simulation of Sea Spray Events in Extreme Weather Conditions

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16:05h <u>DeNucci</u>, Brahan, Kerst, Oyola (U.S. Coast Guard)
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Improving Vessel Safety with a Digital Twin for Ice Accretion

Wednesday, 24 May 2023

Session Chair: Carsten Zerbst

09:00h <u>Seppälä</u> (Cadmatic)

Integrated Shipbuilding Data Management

- 09:25h <u>Bertram</u> (DNV)
 - CAVE Matrix Reloaded
- 09:50h <u>Gaspar</u> (NTNU), Seppälä (Cadmatic), Koelman (SARC), Garcia (Ulstein) Can European Shipyards be Smarter? A Proposal from the SEUS Project

10:15h coffee break

Session Chair: Stefan Harries

10:40h <u>Hinz</u>, Mazerski, Krishnan, Molchanov, Elg, Wejberg (Deltamarin) Digital Twin for Evaluation of Emission Reduction by Novel Technologies

- 11:10h <u>Ioannou</u>, Christodoulou, Karypidis, Korbetis (BETA CAE Systems) Elevating Maritime Design to a Higher Level with Advanced Engineering Simulation
- 11:35h Dæhlen, Heierli-Nesse, Bø (SINTEF Ocean)

Open-Source Web Service for Fast and Reliable Handling of Weather Data for Use in Maritime Simulations

12:00h <u>Koelman</u> (SARC) *Tell Me More*

Tell Me Me **12:25h Lunch**

Session Chair: Takayoshi Masui

13:30h <u>Saxena</u>, Nagarajan (Indian Institute of Technology) – ML-Based Resistance and Powering Prediction of the BSRA Trawler Series

- 13:55h Bertram (DNV), <u>Bentin</u> (HS Emden) Applying ANNs to Derive Empirical Design Formulas for Harbor Tugs
- 14:20h <u>Maathuis</u>, Dijkstra, Aghaei, De Geus-Moussault, Koelman (NHL Stenden) Corrosion Cracking Segmentation in Ship-Vessels using Few-Shot Techniques

14:45h coffee break

We thank our sponsors: Beta CAE, Cadmatic, DNV Maritime Academy, Friendship Systems, NAPA, NDAR, Numeca, Prostep, SARC, Tutech Innovation

Session Chair: Volker Bertram

- 15:15h <u>Nakilcioğlu</u>, Reimann, John (Fraunhofer CML) Adaptation and Optimization of Automatic Speech Recognition (ASR) for the Maritime Domain in the Field of VHF Communication
- 15:40h Gaspar (NTNU), Bertram (DNV)

The Use of ChatGPT and Similar AI in Marine Engineering: Challenges and Opportunities

16:05h Compit Future announcement Compit award given to tbd

Thursday, 25 May 2023

Session Chair: Henrique Gaspar

09:00h <u>Edwards</u>, Levine (NSWC-CD)
Operator Guidance Informed by AI-Augmented Simulations
09:25h Gautier, Doeleman (Deltares), <u>Procee</u> (NHL Stenden)

- Wind Assisted Ship Propulsion Route Optimization using Short Span High Accuracy Weather Forecast
- 09:50h <u>Stochholm</u>, Mikkelsen (UCL), Haastrup (FCMTE) Towards Refining Related Ferry Operational Patterns with Unsupervised Learning - A Case Study

10:15h coffee break

Session Chair: Herbert Koelman

10:45h <u>Andrade</u>, Tannum (USN), Wold (ABB), Indergård (HMS), Roe (ZEMS) Development of a Small Autonomous Surface Vehicle for Academic Competitions, Research and Teaching

- 11:10h Ferretti, Bibuli, Bruzzone, Caccia, <u>Aracri</u>, Motta, Odetti, Diez, Serani (CNR) Procedures for Maneuverability Characterization: From Ships to Marine Robots
- 11:35h <u>Bertram</u> (DNV), Harries (Friendship Systems) 3D Mapping of Underwater Hulls for Robotic Guidance

12:00h <u>Stensrud</u>, Bjørdalsbakke (DNV) Concept of a Digital New Hull Survey Process 12:25h Lunch

Session Chair: Annie Bekker

13:30h <u>Schütz</u>, Genschorek (TU Berlin), Holzki (Alberding) Design of a Heterogeneous Information Platform for the Acquisition and Processing of Relevant Data for Autonomous Operation on Inland Waterways

13:55h Jørgensen, <u>Bellingmo</u>, Mørkrid (SINTEF Ocean) Automated Mooring Systems

14:20h Bekker, De Koker (Stellenbosch Univ) Towards a Digital Twin to Inform Propulsion Safety Margins in Ice

14:45h coffee break

Session Chair: Tom De Nucci

- 14:50h <u>Silonosov</u>, Henesey (BTH) SECMAR Project: Enhancing Maritime Cybersecurity with Drones and Drone Management in the South Baltic Region
- 15:15h <u>Žagar</u>, Šfiligoj, Satler, Dimc (University of Ljubljana) The Biometrical Measurements Concept: Increasing Maritime Safety, Including Biometrical Readings on Ship's Bridge and IoT

18:00h Dinner Gemeindekrug Drübeck

Schnitzel with white asparagus, potatos, sauce hollandaise or vegetarian farmers pan apple strudel with vanilla ice cream and whipped cream beer or non-alcoholic beer