

# Conference Programme

DAY 1 - Tuesday 13 <sup>th</sup> September 2022			
08.30-09.25	REGISTRATION & COFFEE		
Session 1	Plenary - G401		
09.25-09.30	Welcome Address		
9.30-10.00	Dr. Abe Akinori - National Maritime Research Institute		
10.00-10.30	Dr. Noriyuki Sasaki, University of Strathclyde		
10.30-11.00	Mr. Akihiko Masutani - Sumitomo Heavy Industries Marine & Engineering Co., Ltd.		
11.00-11.05	Siemens Sponsor Presentation - Jan Hendrikus Van Os		
11.05-11.30	COFFEE		
	Track 1 (G412)	Track2 (G414)	Track 3 (G416)
Session 2	K. HIEKATA	B. FERRIER	J. DUNCAN
11.30-11.05	Development of PLM system for precise production planning and production control in shipbuilding K Matsuo, National Maritime Research Institute	Semi-Automatic Distributed Ship Service Systems Routing Framework for Submarine Early-Stage Design M H Mukti, University College London	An expanded application of Basic Ship-Planning Support System using Big Data in Maritime Logistics for Panamax and Capesize Dry Bulk Carriers D A F Muzhoffar, Hiroshima University
11.05-12.40	Digital Platform Enabling Robotic Survey, Repair & Agile Manufacturing of Ships and Watercraft F Santo, Lancaster University	About Creating Open-source 3D Modular Viewer in Python G Sikic, LINA et al.	Development of a communication platform to support consensus-building among stakeholders in shipping decarbonization K Takahashi, Mitsubishi Research Institute, Inc.
12.40-12.45	Cadmatic Sponsor Presentation		
12.45-14.00	LUNCH		
Session 3	G. SIKIC	J. DUNCAN	...
14.00-14.35	Information management in shipbuilding projects - uninterrupted information flow from 3D design to production data L Seppälä, Cadmatic	Emergent Simulation Techniques in the Development of the Quiescent Period Prediction (QPP) Flight Deck Motion Forecasting Tool B Ferrier, Hoffman Engineering	
14.35-15.10	Accelerating Japanese Shipbuilding DX Adoption S Crook, SSI	Development of a low-cost real-time ocean wave observing system based on deep learning image algorithm J Choi, Daewoo Shipbuilding & Marine Engineering Co., LTD.	
15.10-15.45	Smart Digital Shipyards with Model-Based Manufacturing O Chouche, Dassalt Systemes SE	Obstacle Detection and Tracking of Unmanned Surface Vehicles Using Multi-view Images in Marine Environment J Park, Seoul National University	
15.45-16.20	COFFEE		
Session 4	K. HIEKATA	B. FERRIER	...
16.20-16.55	Application of mixed reality technology to ship manufacturing process T Hiraki, Mitsubishi Shipbuilding Co., Ltd.	Wind assisted propulsion: Investigations on the use of ship holistic models for performance analysis A Bellot, LMG MARIN France	
16.55-17.30	The benefits of having a best-in-class shipbuilding tool Jan Hendrikus Van Os on behalf of R Perez Fernandez, Siemens Digital Industries Software	Study on Simulation Based Evaluation of Route and Cargo Specific Project for Introducing Decarbonized Ships S Wanaka, National Maritime Research Institute	
17.30-19.00	EVENING DRINKS RECEPTION, SPONSORED BY SIEMENS		

# Conference Programme

DAY 2 - Wednesday 14 <sup>th</sup> September 2022			
	Track 1 (G412)	Track 2 (G414)	Track 3 (G416)
08.30-09.00	REGISTRATION		
Session 1	K. HIEKATA	G. SIKIC	...
09.00-09.35	Development of a Pipe Fabrication Process Determination System Using Graph Database and Process Simulation Y Mihara, Yokohama National University	Digital Enterprise Platform - Enabling efficient CAD, PLM, ERP Integration on shipyards J Bitomsky, Prostep	
09.35-10.10	Automated Generation and Low Effort Authoring of Commissioning Content in the Maritime Industry A Elzalabany, Technical University of Hamburg	Development of hull lines creation & performance estimation tool based on model test database as a communication platform S Takeda, Mitsubishi Shipbuilding Co., Ltd.	
10.10-10.45	From Point Cloud to CAD-model based on AI J Lützenberger, Prostep	A New Approach for Using CAD and PLM Integration Shigeru Fujita on behalf of R Perez Fernandez, Siemens Digital Industries Software	
10.45-10.50	Class NK Sponsor Presentation		
10.50-11.20	COFFEE		
Session 2	B. FERRIER	K. HIEKATA	...
11.20-11.55	Coupling a high fidelity near surface effects model into PARAMARINE S4 P Crossland and C Forrest, QinetiQ Ltd	A route planning method for coastal navigation of small ships D Jeong, Seoul National University	
11.55-12.30	A Mobile Application to Assess the Stability of Small Fishing Boats A Grech La Rosa, University College London	Development of a Shipping Market Forecasting System Using Vessel Movement Data and its Practical Application Y Wada, National Maritime Research Institute, Japan	
12.30-13.50	LUNCH		
Session 3	H. SUGA	G. SIKIC	...
13.50-14.25	Digital Transformation Through Data-Driven and Data-Centric Approaches with Artificial Intelligence J Khairuddin, Universiti Teknologi Malaysia	A Model-Based Decision Support Framework for Maritime Industry: Case Study of Alternative Fuels Deployment K Hiekata, The University of Tokyo	
14.25-15.00	A Method of Variable Recognition and Connection for Reviewing Ship Regulations M Kong, Seoul National University	Dynamic modelling of ammonia crackers and hydrogen PEM fuel cells for shipping applications C McKinlay, University of Southampton	
15.00-15.35	Making 3D Model-Based Approval a Reality T Masui, NAPA Japan	Voyage optimization with wind propulsion V Paakkari, Norsepower	
15.35-15.40	Prostep - Sponsor Presentation		
15.40-16.10	COFFEE		
Session 3	H. SUGA	J. DUNCAN	PRERECORDED
16.10-16.45	Interface development between the 3D CAD software and the structural strength assessment software for efficient classification approval J Kim, Korean Register	IoS-OP: Initiatives for ship operation data collection, distribution, and utilization Y Ikeda, ShipDC	Automatic Data Extraction and Unfolding for Ship Hull Plates on CATIA Y Hu, Wuhan University of Technology
16.45-17.20	Streamlining the ship structural optimization process by using an early 3D product model T Masui, NAPA Japan	Zero Infrastructure Geolocation Of Nearby First Responders On Ro-Ro Vessels D Zeinalipour, University of Cyprus	
17.20-17.25	END OF DAY 2		

DAY 3 - Thursday 15 <sup>th</sup> September 2022		
	Track 1 (G412)	Track 2 (G414)
08.30-09.00	REGISTRATION	
Session 1	G. SIKIC	B. FERRIER
09.00-09.35	A position estimation system for indoor workshops making use of maximum likelihood estimation in Weibull distribution model of wireless LAN H Kimura, Kyushu University	JoRes project - a collection of reference cases for CFD ship scale validation D Ponkratov, JoRes Project
09.35-10.10	Plan, Do, Check, Act: Enabling the Deming Cycle for Ship Production C Zerbst, Prostep	Full scale wake field measurements - the first use of the FlowPike PIV device G Struijk, MARIN
10.10-10.45	Autonomous Mobile Robots introduction in shipyards' manufacturing process C Dentesano, Fincanteri	The benefits of having a best-in-class shipbuilding tool Jan Hendrikus Van Os on behalf of R Perez Fernandez, Siemens Digital Industries Software
10.45-10.50	BETA CAE Sponsor Presentation - George Korbetis	
10.50-11.20	COFFEE	
Session 2	B. FERRIER	K. HIEKATA
11.20-11.55	Development of CAD based stability calculation software for Pure-Loss of Stability and Parametric Rolling Failure Mode of 2nd Generation Intact Stability Criteria J Park, Korean Register	Virtual reality beyond design reviews in shipbuilding : the need for industry-tailored immersive data interaction. N Fourier, Segula Technologies
11.55-12.30	Interceptor Effects on a 3D Rectangular Plates in a Calm Water by Using Computational Fluid Dynamics A M F Putra, Osaka University	Vehicle Hot Spot Detector and Dangerous Goods Detector to Fire Ignition Prevention in Ro-Ro Ships Á Marrero, CENIT Research Group of CIMNE
12.30-13.05	About Using the Game Engines in Shipbuilding, Software Developer's Perspective G Sikic, LINA et al	Stowage Planning Tool Supporting Fire Risk Management: A New Way For Cargo Distribution F Rodero, CENIT Research Group of CIMNE
13.05-13.10	SSI - Sponsor Presentation	
13.10-14.10	LUNCH	
Session 3	J. DUNCAN	H. SUGA
14.10-14.45	Sustainable Ship design with Modular Shipbuilding approach R Audoire, Dassault Systemes	A study of process simulation based on a multi-agent system for shipbuilding T Taniguchi, National Maritime Research Institute
14.45-15.20	AI/ML applications for ship design M Wheeler and J Hodges, Siemens Industry Software Computational Dynamics Limited	Simulation Method of Fleet Transition Based on Technology, Economics, and Regulation Scenario for Decarbonization of Shipping S Wanaka, National Maritime Research Institute
15.20-15.55	Dynamic optimization of port operations onboard a typical Ro-Ro vessel, aided by a smart decision support system C S Uppal, Indian Navy	Performance optimisation of solid oxide fuel cells through wasted heat recovery systems for marine applications C McKinlay, University of Southampton
15.55-17.00	COFFEE and CLOSE (G401)	