SHIPBUILDING ICCAS ROTTERDAM | 2019

Conference Programme

DAY 1 – Tuesday 24th September 2019				
08.30-09.25		REGISTRATION & COFFEE		
Session 1		**Diamond Room**		
09.25-09.30		**Welcome Address**		
09.30-09.50		**Plenary Speaker 1**		
09.50-10.10		**Plenary Speaker 2**		
10.10-10.45		**Plenary Speaker 3**		
10.45-10.50				
10.50-11.20		**COFFEE**		
		Track I	**Track II**	**Track III**
Session 2	11.20-11.55	**Sticking paint replacement films on ship hull surface based on lines of curvature** M. Takezawa and K. Matsuo, National Maritime Research Institute, Japan	**Simulation of hull panel logistics improvement in a shipyard** A. K. Dev and Z. K. Fung, Newcastle University in Singapore, Singapore	**Virtual reality: tool or toy for shipbuilding?** J. Martin, SAMOSC Ltd., UK
	11.55-12.30	**Study on hull line fairing based on CATIA** Y. Liu, Y. Hu and C. Huang, Wuhan University of Technology, China	**A suggestion of digital platform for shipbuilding industries** J.H. Park, HM Lee, S.R. Yoon, H.S. Ahn, J.S. Park, J.G. Park, S.J. Cho and J.U. Choi, Samsung Heavy Industries, South Korea	**Virtual reality in shipbuilding: three use cases in a cruise ship design process** M. Schiavon, A. Cossutta and L. Ambrosio, Fincantieri S.p.A., Italy M. Keber, Fincantieri Oil & Gas S.p.A., Italy A. Zini, CETENA S.p.A., Italy M. Jez, Arsenal S.r.l., Italy
12.30-13.50		**LUNCH**		
Session 3	13.50-14.25	**Harnessing publicly available information with data science to extract the operational profile of a vessel** R. Bakker, B.T.W. Mestemaker and J.T.M. Wijnands, Royal IHC, the Netherlands	**The future reality of the digital twin as a cross-enterprise marine asset** D. Morais and G. Goulanian, SSI, Canada N. Danese, NDAR, France	**Ship data driven propulsion models & energy saving technology assessments** J. E. Buckingham, D. R. Pearson, and E. Storey, BMT Defence and Security UK Ltd., UK
	14.25-15.00	**Integrating virtual reality software into the early stages of ship design** C. Cassar, N. Bradbeer and G. Thomas, University College London, UKR. James Simpson, BMT, UK	**Research on multi-index evaluation of ship construction process based on data mining** K. Li, M. T. Liu and Z. C. Zhao, Dalian University of Technology, China	**About importance of input devices in virtual reality, used in CAD environment** G. Sikic, Lina et al, USCS, Croatia
	15.00-15.35	**Enabling the digital thread for shipbuilding and shipping** M. Grau, C. Gresens, S. Vettermann and L. Wagner, PROSTEP AG, Germany	**Simulation model for project duration estimation considering impacts of delay and rework** K. Hiekata and R. Wang, The University of Tokyo, Japan T. Mitsuyuki, Yokohama National University, Japan	**Implementing Virtual Reality Tools for Ship Design and Build** K. Goh, Knud E Hansen Australia, Australia
15.35-15.40		**Sponsor Presentation**	**Sponsor Presentation**	**Sponsor Presentation**
15.40-16.10		**COFFEE**		
Session 4	16.10-16.45	**Accurate and timely ship design proposal development using product lifecycle management** B.A. Ulstein, Ulstein Design & Solutions AS, Norway D. Gillikin, Marine, PLM Consultant, USA	**COLREGS-compliant multi-ship collision avoidance via deep reinforcement learning** L. Zhao, H. Zhang, Norwegian University of Science and Technology (NTNU), Norway M. I. Roh, H. W. Lee, D. H. Chun, S. J. Lee and J. B. Lee, Seoul National University, South of Korea	**Are we using the engineering data efficiently through the rest of the process?** M. Veldhuizen, Hexagon PPM/Nestix Oy, the Netherlands
	16.45-17.20	**The use of functional analysis to ensure value for money in complex engineering projects** M. Courts, BAE Systems Maritime – Naval Ships, UK	**Image-based object detection and tracking method for ship navigation** S. J. Lee, M I Roh, Y S Seok, W J Lee and J B Lee, Seoul National University, South of Korea M. J. Oh, University of Ulsan, South of Korea H. S. Kim, Daewoo Shipbuilding and Marine Engineering, South of Korea	**Achieving the digital ship: from design to operation** J. A. Muñoz and A. Ramirez, SENER Ingeniería y Sistemas S.A, Spain
19.00-22.00		**EVENING DRINKS RECEPTION**		

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DAY 2 - Wednesday 25th September 2019				
		Track 1	**Track 2**	**Track 3**
08.30-09.00		**REGISTRATION**		
Session 1	09.00-09.35	**Introducing operational information into early stage ship design using queueing networks** K. Droste, J J Hopman and A. A. Kana, Delft University of Technology, the Netherlands B. J. van Oers, Defence Materiel Organisation, the Netherlands	**Multiboat. evolution of ship series and implications in design applications** P. Martín and R. Pérez Fernández, SENER, Madrid, Spain	**A position estimation system making use of signal strength of wireless LAN in a shipyard** H. Kimura, Kyushu University, Japan N. Iwauchi, Tsuneishi Shipbuilding Co. Ltd., JapanY. Yoshida, Kawasaki Heavy Industries Ltd., Japan
	09.35-10.10	**ASNET – A simulation framework to support the early stage design of naval ships** F. Perra, CETENA, Italy M. Paolucci, University of Genoa, Italy	**Empowering the workforce of the future with a culture of knowledge and know-how enabled by digital experience platforms** A. Tew-Kai, Dassault Systèmes, France	**Enabling best tool in class for shipbuilding** M. Grau, C. Gresens and C. Zerbst, PROSTEP AG, Germany
	10.10-10.45	**Lidar technology development applied to ship motion prediction (QPP) and air wake over-deck definitions using simulation and at sea analysis** Prof. B Ferrier, Hoffman Engineering, Dynamic Interface Laboratory, USA Prof. J Duncan and Mr. J. Duncan, Defence Equipment & Support, MOD, UK Prof. M. R. Belmont and Dr. J. T. Christmas, Exeter University, UK	**Global digital hull** R. Lanet and Thierry Le Gal, NAVAL Group, France	**A development of web application for viewing speeds format using X3D** K. Murata and H. Kimura, Kyushu University, Japan
10.45-11.20		**COFFEE**		
Session 2	11.20-11.55	**Artificial intelligence in early ship design** U. R. Gadekari, SeaTech Solutions International Pte. Ltd., Singapore A. Padmanabhan, SeaTech Solutions Europe GmbH, Germany	**Trusted point-clouds for ship retrofit** G. Stonestreet, AVEVA, UK	**Assessment of machine learning algorithms for active heave compensation** T. Holzki and G. Holbach, Technical University of Berlin, Germany
	11.55-12.30	**Collaboration in Virtual Reality: Designing Better Ships** R. Spencer, Stirling Labs, Australia	**Development of a data-driven paint management application** E. Celik, A. Ruitenberg and S. Knegt, Damen Schelde Naval Shipbuilding, the Netherlands	**Planning tools for quiescent periods** M. Al-Ani, M.R. Belmont and J. Christmas, University of Exeter, UKJ. M. Duncan and J. Duncan, Ministry of Defence Equipment and Support HQ, UK
12.30-12.35		**Sponsor Presentation**	**Sponsor Presentation**	**Sponsor Presentation**
12.35-13.50		**LUNCH**		
Session 3	13.50-14.25	**Agnostic G1 hull form generation from curve network for 3D ship CAD** W. Jang, W. Lee and T. W. Kim, Seoul National University, South Korea	**Maritime applications of air-wake prediction using doppler LIDAR** J. Christmas and M. R. Belmont, University of Exeter, UK J. M. Duncan and J. Duncan, Ministry of Defence Equipment and Support HQ, UK B. Ferrier, Hoffman Engineering, Dynamic Interface Laboratory, USA	**A digital twin is not a digital twin is not a digital twin: an attempt to clear the fog** J. Esteve, Bureau Veritas, France
	14.25-15.00	**Introduction to buckling assessment software for CSR requirement** J.O. Kim and H.G. Park, Korean Register, South Korea	**Digital continuity** O. Chouche, Dassault Systèmes, France	**Game Engines - the real heart of Digital Twins?** D. Thomson, AVEVA, UK
	15.00-15.35	**An efficient approach at holistic ship design's service for structural optimisation** A. Bayatfar and P. Rigo, University of Liege, Belgium	**The impact of emission tax scenarios on the economic viability of advanced ship designs** C. Norden and S. Wurst, BALance Technology Consulting GmbH, Germany M.B. Gonçalves Castro and B.T.W. Mestemaker, Royal IHC, the Netherlands	**The visual digital twin for shipbuilding** G. England, Virtalis, UK
15.35-16.10		**COFFEE**		
Session 4	16.10-16.45	**Smartship – Increased performance of ship operations with new digital solutions** G. Stonestreet and A. Retamero, AVEVA, UK	**An agent-based simulation model for the crowd on passenger ships** Y. Li, Wuhan University of Technology, China and Delft University of Technology, the Netherlands A. A. Kana and B. Atasoy, Delft University of Technology, the Netherlands W. Cai, Wuhan University of Technology, China	**Development of product model data exchange between different 3D CAD systems for hull designing** T. Hiraki and K. Obata, Mitsubishi Shipbuilding Co., Ltd., JapanS. Shiroyama, DI Square Corp., Japan
	16.45-17.20	**The optimization of ship coastal routing based on the ocean environment** W. Lee, G. Choi and T. Kim, Seoul National University, South Korea S. Ham, Changwon National University, South Korea	**Vibrational analysis of cutter suction dredger** C. R. Barik and K. Vijayan, Indian Institute of Technology, Kharagpur, India	**Applications & advantages of employing digital ship design tools for newbuilding, retrofit and conversion projects** A. Borczyk and M. P. Singh, NED-Project sp. z o.o., Poland

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DAY 3 – Thursday 26th September 2019				
		Track 1	**Track 2**	**Track 3**
08.30-09.00		**REGISTRATION**		
Session 1	09.00-09.35	**Distributed ship service systems architecture in the early stages of physically large and complex products** M. H. Mukti, R. J. Pawling, C. Savage and D. J. Andrews, University College London, UK	**Experimental analysis to control welding deformation in thin plate** A. M. Taha, Damen Shipyard Galati and University of Liege, Belgium	**The development of speeds (smart platform of enhanced engineering data for shipping and shipbuilding) and innovative use of ship 3D data across borders using CADs** K. Hamada, Hiroshima University, Japan T. Hiraki, Mitsubishi Shipbuilding Co., Ltd., JapanY. Sasaki, Class N.K., JapanM. Ozaki, NTT Data Engineering Systems Corporation, Japan
	09.35-10.10	**An interactive layout exploration and optimisation method for early stage ship design** B. Igrec, R. Pawling and G. Thomas, University College London, UK A. Sobey, University of Southampton, UK J. Rigby, BMT, UK	**Development of work support system of press work for sheet metal forming** K. Matsuo and M. Takezawa, National Maritime Research Institute, Japan	**Optimizing inventory strategy for modular shipbuilding** T. van der Beek, J. T. van Essen, J. Pruyn, K. Aardal and H. Hopman, Delft University of Technology, the Netherlands
	10.10-10.45	**Semi-automated approach for detailed layout generation during early stage surface warship design** J.J. le Poole, J.J. Hopman and A.A. Kana, Delft University of Technology, the Netherlands E.A.E. Duchateau and B.J. van Oers, Defence Materiel Organisation, the Netherlands	**Augmented reality for the visual inspection of pipes** J. Brisset and Y. Bouju, Naval Group, France S. Bourgeois, CEA List, France	**Holistic ship design – enabling holistic thinking across organisations with digital components** T.-H. Wölke (Stachowski), M. Slagsvold and H. Kjeilen, Digitread AS, Norway
10.45-11.20		**COFFEE**		
Session 2	11.20-11.55	**Smart optimization of a self-propelled passenger ferry based on adaptive grid refinement and design space analysis** K. Vidal, B. Mallol and C. Hirsch, NUMECA International, Belgium	**Research on the two-dimensional PSO based method for sub-assembly identification in ship block building** B. Liu, R. Li and S. Li, Dalian University of Technology, China	**Glimpse to the future. technological trends in the shipbuilding CAD world** R. Pérez Fernández and E. Péter Cosma, SENER, Spain
	11.55-12.30	**TBC**	**A simulation for block lifting using flexible multibody dynamics** T. Arai, Altair Engineering, Inc., JapanY. Uno, Shin Kurushima Dockyard Co., Ltd., JapanK. Kuroda, Sanoyas Shipbuilding Corporation, JapanT. Nakamori, Namura Shipbuilding Co., Ltd., JapanT. Mori, Kitanihon Shipbuilding Co., Ltd., Japan	**Practical use cases of artificial intelligence in the shipdesign stage** Dr. R. de Góngora, SENER, Spain
12.30-12.35		**Sponsor Presentation**	**Sponsor Presentation**	**Sponsor Presentation**
12.35-13.50		**LUNCH**		
Session 3	13.50-14.25	**Model-based approval - the open class 3d exchange (OCX) standard** O.C. Astrup and O. Aae, DNV GL, Norway T. Kuś, DNVGL, Poland O. Uyanik and B. Biterling, AVEVA, Sweden T. Bars, Chantiers de l'Atlantique, France M. Polini, Hexagon PPM, USA. G. Vijaya, Hexagon Capability Centre, India K. Yu, Siemens, China L. Juttu, NAPA, India	**Platform-based modular product family design** R. Audoire, Dassault Systèmes, France	**Escape & evacuation (E&E) during ship construction – an alternative use of E&E software** N. Brophy, A. Headrick, D Linton, and M. A. Way, Babcock International Group, UK
	14.25-15.00	**New calculation method and software for enhanced efficiency of container stowage** V. Wolf, H. Eisen and M. O. Wobig, DNV GL, Germany	**Machine learning applications in the smart monitoring system for shipbuilding** R. Takenaka, M. Irie, K. Oizumi and K. Aoyama, School of Engineering, The University of Tokyo, Japan	**Application of computing technology in ship recycling** Y. R. Kamath and Dr. K. Sivaprasad, Cochin University of Science and Technology, India Dr. S. Jayaram, Consultant Naval Architect, Cochin, India
	15.00-15.35	**Process integration of structural design promoted by 3D model based approval** Y. Shimakawa and Y. Miura, Japan Marine United Corporation, Japan T. Masui, Napa Japan, Japan T. Hayashi and M. Sakagami, ClassNK, Japan	**New relations between professional and work's organizations introduced by computer applications, special vessel case study** V. Ruggiero, Engineering Department, University of Messina, Italy A. Giallanza and G. Marannano, Engineering Department, University of Palermo, Italy F. Morace, Liberty Lines S.p.a., Italy C. Strasser, Schiffbautechnische Versuchsanstalt, Austria	**TBC**
15.35-16.40		**CLOSURE**		

* The shipyard visit will take place on Friday the 27th.