

T1-1

Date	Wednesday, October 21, 2026
Time	16:00 - 18:00
Location	Texas 5, 6, 7
Topic	Ship Performance in General 1
Chair	Kwang-jun PAIK (Inha University)

T1-1-1	Experimental investigation on aerodynamic interaction and performance optimization of multi-rigid wing sails for LNG carriers
16:00 - 16:20	<i>Gyu jung AN, Jin kyu KIM, Hee jung KIM and Yong chul LEE (Samsung Heavy Industries), Casper VENLOV (FORCE Technology)</i>
T1-1-2	Development and onboard application of a vibration compensator for ships
16:20 - 16:40	<i>Kuksu KIM, Yeorm KIM and Sung-gun PARK (Hanwha Ocean), Dong-ho YANG and Moon-kyu KWAK (Control Factory)</i>
T1-1-3	Comparison of one-way and two-way CFD-DEM coupling for the maneuvering performance of ARAON in floe ice
16:40 - 17:00	<i>Hyeongseok YOON, Kwang-jun PAIK, Sanghyun KIM, Jaeyoon JEON, Jumyeong LEE, Joohyung OH and Jisoo HAN (Inha University)</i>
T1-1-4	Experimental investigation of noise mitigation and efficiency in non-conventional marine propulsion systems
17:00 - 17:20	<i>Mario FELLI, Marco ORRICO, Giulio ROSATI and Mauro SALE (National Research Council of Italy, Institute of Marine Engineering)</i>
T1-1-5	Development of a TVC noise prediction method based on bubble dynamics
17:20 - 17:40	<i>Ji-wan KO, Kwang-jun PAIK, Su-a JUNG, Joon-young KIM and Byeong-u YOU (Inha University)</i>
T1-1-6	Methodologies for assessing ships underwater radiated noise in deep and shallow water
17:40 - 18:00	<i>Khaled HELAL and Dan OLDFORD (ABS)</i>

T1-2

Date	Wednesday, October 21, 2026
Time	16:00 - 18:00
Location	Texas 1, 2, 3
Topic	Alternative Fuel in General 1
Chair	Nikola VLADIMIR (University of Zagreb)

T1-2-1 16:00 - 16:20	CFD numerical study on ERA-based safety assessment of storage, supply, and bunkering systems for liquefied hydrogen-fueled ships <i>Seung woo HAN, Gun woo KIM, Ha yeong KIM, Song hyun CHA, Dong hee HONG and Hyun seok KIM (KRISO)</i>
T1-2-2 16:20 - 16:40	Consequence-based safety assessment and controlled zone design for LPG fuel transfer in shipyards <i>Sung-in PARK (HD Korea Shipbuilding & Offshore Engineering)</i>
T1-2-3 16:40 - 17:00	Ammonia gas dispersion analysis and reduction research in the engine room <i>Jae-won HEO, Dae-woong HWANG and Du-hyeon CHO (Hanwha Ocean), Yun-han LEE (Samsung Heavy Industries), Yong-hwan KIM (Seoul National University)</i>
T1-2-4 17:00 - 17:20	Characteristic analysis and application discussion of clean alternative fuels for future ships <i>Yihuai HU (Shanghai Maritime University) and Juanjuan TANG (Shanghai Ship Design and Research Institute)</i>

T1-3

Date	Wednesday, October 21, 2026
Time	16:00 - 18:00
Location	Lakeview
Topic	AI and ML Application to Ship & Vehicle Design 1
Chair	Kevin MAKI (University of Michigan)

T1-3-1	Learning admissible shape manifolds: a nonlinear framework for compact design spaces
16:00 - 16:40	<i>Andrea SERANI and Matteo DIEZ (CNR-INM)</i>
T1-3-3	AI-based web platform for hull form generation and performance prediction
16:40 - 17:00	<i>Dayeon KIM, Heejung KIM, Jinkyu KIM and Youngchul LEE (Samsung Heavy Industries), Jeongbeom SEO and Inwon LEE (Pusan National University)</i>
T1-3-4	Global response estimation of FOWT substructure via distortion mode-based conversion matrices
17:00 - 17:20	<i>Gi-young JEON, Beomil KIM and Kyeongtae KIM (Korean Register)</i>
T1-3-5	Generative models for ship design
17:20 - 17:40	<i>Panagiotis KAKLIS (University of Strathclyde), Georgios ANAGNOSTOPOULOS, Georgios PAXIMADAKIS and Dimitrios KAKLIS (Archimedes Unit, ATHENA Research Center), Stamatis STAMATELOPOULOS (Massachusetts Institute of Technology)</i>

T1-4

Date	Wednesday, October 21, 2026
Time	16:00 - 18:00
Location	Paluxy
Topic	Marine Autonomy 1
Chair	Donghan WOO (ABS)

T1-4-1 16:00 - 16:20	Navigating the hurdles of maritime autonomy <i>Mingi JEONG (Virginia Tech) and Alberto QUATTRINI LI (Dartmouth College)</i>
T1-4-2 16:20 - 16:40	COLREGs-compliant collision avoidance and grounding prevention for autonomous marine navigation <i>Mayur Shivaji PATIL and Nataraj SUDHARSAN (Texas A&M University), Veneela AMMULA, Jude TOMDIO, Jin WANG and Michael KEI (ABS), Prabhakar PAGILLA and Sivakumar RATHINAM (Texas A&M University)</i>
T1-4-3 16:40 - 17:00	Application of a simulation-based safety assessment method to real-world automatic berthing and unberthing trials <i>Makoto ITO and Tomoaki YAMADA (ClassNK), Yusuke UETANI and Shinichiro MABUCHI (Nabtesco), Tomoya NAKANO and Yoshimitsu KOGURE (Tokyo Keiki)</i>
T1-4-4 17:00 - 17:20	Integrating sub-seasonal forecast into maritime autonomous surface ships for strategic pre-voyage planning <i>Taehyung KIM and Dong-hyun CHA (Ulsan National Institute of Science and Technology)</i>
T1-4-5 17:20 - 17:40	Learning-enhanced wave-aware trajectory planning for roll-reduced ship navigation <i>Xiangheng LI, Mingyang ZHANG and Hongdong WANG (Shanghai Jiao Tong University), Nastia DEGIULI and Ivana MARTIC (University of Zagreb)</i>

T1-5

Date	Wednesday, October 21, 2026
Time	16:00 - 18:00
Location	Woodbine
Topic	Marine Structures and Materials 1
Chair	Seung-hwan BOO (Korea Maritime & Ocean University)

T1-5-1	Changing ice conditions: advanced analysis techniques and considerations for ice going vessels and icebreakers
16:00 - 16:20	<i>Ed MOAKLER, Michael GRANT and Dan OLDFORD (ABS)</i>
T1-5-2	Hydrogen embrittlement of aluminum alloys under cathodic charging
16:20 - 16:40	<i>Molly PITRA (Georgia Institute of Technology)</i>
T1-5-3	Effect of notch geometry on hydrogen embrittlement and fracture behavior of 304L stainless steel
16:40 - 17:00	<i>John-Michael MENDEZ (University of Connecticut)</i>
T1-5-4	Dynamic load recovery of icebreaking vessel via reduced-order modeling and optimal sensor placement
17:00 - 17:20	<i>Ye jin KIM, Min-hyuk KIM and Seung-hwan BOO (Korea Maritime & Ocean University)</i>
T1-5-5	Residual mode-enhanced reconstruction of full-field structural responses for digital twin
17:20 - 17:40	<i>Na yeong HAN, Ye-jin KIM, Kyeong-min KIM and Seung-hwan BOO (Korea Maritime & Ocean University)</i>

T1-6

Date	Wednesday, October 21, 2026
Time	16:00 - 18:00
Location	Gulf Coast
Topic	Decarbonization 1
Chair	Chang-Jin KIM (UCLA)

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| T1-6-1 | Air lubrication technology for ship drag reduction: opportunities & challenges |
| 16:00 - 16:20 | <i>Simo Aleksi MAKIHARJU (UC Berkeley)</i> |
| T1-6-2 | Voyage optimization of a rotor sail-assisted ship for minimum fuel consumption based on dynamic programming |
| 16:20 - 16:40 | <i>Ju-myeong LEE, Sanghyun KIM, Jae-yoon JEON, Hyeong-seok YOON, Joo-hyung OH and Ji-soo HAN (Inha University)</i> |
| T1-6-3 | A novel vertically stacked tri-lobe LCO₂ tank adapted to the midship cross section for efficient storage of onboard-captured CO₂ |
| 16:40 - 17:00 | <i>Jinho LEE and Hyun-seok KIM (University of Science and Technology)</i> |
| T1-6-4 | Evaluating the energy efficiency of fishing vessels: definition, indicators and improvement options |
| 17:00 - 17:20 | <i>Nikola VLADIMIR, Ivana JOVANOVIĆ and Nolla TODOROVIC (University of Zagreb)</i> |
| T1-6-5 | Sustained friction drag reduction on superhydrophobic microtrench surfaces at speeds up to 18 knots in a high-speed water tunnel |
| 17:20 - 17:40 | <i>Chang-Jin KIM, Eric Hyunsung CHO and Zhaohui LI(UCLA), Matthew BROSS (Pennsylvania State University), Paolo Luzzatto FEGIZ (University of California)</i> |

T2-1

Date	Thursday, October 22, 2026
Time	13:40 - 15:40
Location	Texas 5, 6, 7
Topic	Ship Performance in General 2
Chair	Mario FELLI (National Research Council of Italy, Institute of Marine Engineering)

T2-1-1	Numerical investigation of wake vortex dynamics in flapping hydrofoil with two-dimensional and three-dimensional motions
13:40 - 14:00	<i>Jun-sung PARK, Kwang-jun PAIK and Jae-hyeon AN (Inha University)</i>
T2-1-2	Non-linear relative wave motions at the bow and along the side of an FPSO leading to green water
14:00 - 14:20	<i>Joo-sung KIM, Yong-ho CHOI, Hyejong SON and Raehyoung YUCK (Samsung Heavy Industries)</i>
T2-1-3	A comparison of hydrodynamic optimization strategies for surface combatant vessels
14:20 - 14:40	<i>Giacomo PELLIZZARI and Stefano BRIZZOLARA (Virginia Tech), Francesco GRECO (Fincantieri), Giuliano VERNENGO (Universita di Genova), Nicola ARTUSO (CETENA)</i>
T2-1-4	Optimization of design variables for a pre-swirl flow control fin using a surrogate model and multi-objective optimization
14:40 - 15:00	<i>Hyunjun KIM, Seung-myun HWANGBO and Inwon LEE (Pusan National University)</i>
T2-1-5	Experimental investigation of wave-induced vortex dynamics around a surface-piercing monopile using PIV
15:00 - 15:20	<i>Sion JIN, Ji-hwan KIM, Jong-min BAEK, Ji-won HAN and Byoung-kwon AHN (Chungnam National University)</i>

T2-2

Date	Thursday, October 22, 2026
Time	13:40 - 15:40
Location	Texas 1, 2, 3
Topic	Alternative Fuel in General 2
Chair	Kwang hyo JUNG (Pusan National University)

T2-2-1	Research on non-contact sensing techniques for measuring ammonia micro-leaks
13:40 - 14:00	<i>Mike KOO (Samsung Heavy Industries)</i>

T2-2-2	Technology selection for nuclear marine propulsion
14:00 - 14:20	<i>Mayir MAMTIMIN (ABS) and Koroush SHIRVAN (Massachusetts Institute of Technology)</i>

T2-2-3	Development of a multiphase CFD model to predict pressure rise in LPG tanks
14:20 - 14:40	<i>Young hun KIM and Sungwoong CHOI (Gyeongsang National University)</i>

T2-3

Date	Thursday, October 22, 2026
Time	13:40 - 15:40
Location	Lakeview
Topic	AI and ML Application to Ship & Vehicle Design 2
Chair	Andrea SERANI (CNR-INM)

T2-3-1	Generative AI for extreme ship roll under the influence of wind and waves
13:40 - 14:00	<i>Kevin MAKI, Eric HEILSHORN and Adam SAK (University of Michigan), Ji young SEO and Bo woo NAM (Seoul National University),</i>
T2-3-2	A method of exemplar-based symbol detection for enhancing the accuracy and efficiency of ship fire and safety plan review
14:00 - 14:20	<i>In-su HAN, Myung-Il ROH, In-chang YEO and Seong-won CHOI (Seoul National University), Dohyun CHUN (ABS)</i>
T2-3-3	Physics-informed design-space dimensionality reduction for RANS-based propeller optimization
14:20 - 14:40	<i>Stefano GAGGERO (University of Genoa) and Andrea SERANI (National Research Council - Institute of Marine Engineering)</i>
T2-3-4	Accelerating the hydrodynamic design optimization of biomimetic underwater gliders via machine learning: the BIODRONES project
14:40 - 15:00	<i>Matteo DIEZ and Andrea SERANI (CNR-INM), Umberto IEMMA (Roma Tre University), Giampaolo LIUZZI (Sapienza University of Roma)</i>
T2-3-5	Transfer learning in the structural optimization of ship hulls
15:00 - 15:20	<i>Gianluigi ROZZA and Lorenzo FABRIS (SISSA mathLab), Marco TEZZELE (Emory University), Ciro BUSIELLO and Mauro SICCHIERO (Fincantieri)</i>

T2-4

Date	Thursday, October 22, 2026
Time	13:40 - 15:40
Location	Paluxy
Topic	Marine Autonomy 2
Chair	Mingi JEONG (Virginia Tech)

T2-4-1 13:40 - 14:00	Virtual testing for autonomous navigation systems towards a standardized framework for safety and performance evaluation <i>Donghan WOO, Geng QIN, Liza CHUA, Dohyun CHUN and Yao Hua TEN (ABS)</i>
T2-4-2 14:00 - 14:20	A simulation-based risk assessment framework for marine autonomous navigation systems under environmental uncertainty <i>Mayur Shivaji PATIL, Jiachang XING, Anthony Salim SAAIBY, Nataraj SUDHARSAN, Keliang PAN, Heonyong KANG, Sivakumar RATHINAM and Prabhakar PAGILLA (Texas A&M University), Veneela AMMULA, Jude TOMDIO and Jin WANG (ABS)</i>
T2-4-3 14:20 - 14:40	An improved method for detection and tracking of maritime obstacles using multiple-sensor fusion in real-world maritime environments <i>Yun-sik KIM, Myung-il ROH, Ha-yun KIM, In-chang YEO and Nam-sun SON (Seoul National University)</i>
T2-4-4 14:40 - 15:00	Recoverability and identifiability of ship manoeuvring information from minute-resolution full-scale operational data <i>Xindong LIU, Mingyang ZHANG and Hongdong WANG (Shanghai Jiao Tong University), Nikolaos TSOULAKOS (Laskaridis Shipping), Pentti KUJALA (Tallinn University of Technology, Estonian Maritime Academy), Spyros HIRDARIS (ABS)</i>

T2-5

Date	Thursday, October 22, 2026
Time	13:40 - 15:40
Location	Woodbine
Topic	Marine Structures and Materials 2
Chair	Dongchun QIAO (ABS)

T2-5-1	Sustainable materials for liquefied gas containment systems - toward a net-zero shipping industry
13:40 - 14:00	<i>Avery BARLOW, Tae-dong PARK, Dongchun QIAO, Bo WANG and Marcus CRIDLAND (ABS)</i>
T2-5-2	Effect of tramp elements (Sn, N) and stress state on the toughness in offshore structural steels
14:00 - 14:20	<i>Seongtak OH and Ho-sang JANG (Hyundai Steel R&D Center)</i>
T2-5-3	Analysis of fatigue behavior of 66 kV wet type submarine cable
14:20 - 14:40	<i>Yun-jae KIM and Sung woong CHOI (Gyeongsang National University)</i>
T2-5-4	Future BOR targets for LNG carriers: technical trends and economic insights
14:40 - 15:00	<i>Ushin LEE and Jong-ki LIM (Hanwha Ocean)</i>
T2-5-5	Layer-count and purge-gas effects on foil-and-paper multilayer insulation in a Cryostat-100 calorimeter
15:00 - 15:20	<i>Neha DOSSANI (Georgia Institute of Technology)</i>
T2-5-6	Effects of hollow glass microspheres and transportation vibration on cryogenic insulation performance
15:20 - 15:40	<i>Sanjay KARTHIK (University of Florida)</i>

T2-6

Date	Thursday, October 22, 2026
Time	13:40 - 15:40
Location	Gulf Coast
Topic	Decarbonization 2
Chair	Simo Aleksi MAKIHARJU (UC Berkeley)

T2-6-1 An experimental study on the aerodynamic characteristics of a wing sail

13:40 - 14:00 *Sungyoon CHOI, Woojun OH and Jungeun KIM (KOMERI)*

T2-6-2 Estimation of power saving of wing sail and roller wing retrofits using reconstructed relative wind from bulk carrier operational data

14:00 - 14:20 *Donghyun CHO, Jin-won YU and Inwon LEE (Pusan National University)*

T3-1

Date	Thursday, October 22, 2026
Time	16:00 - 18:00
Location	Texas 5, 6, 7
Topic	Ship Performance in General 3
Chair	Sime MALENICA (Bureau Veritas Marine and Offshore)

T3-1-1	Coupling of RANS CFD-based parametric hull form optimization framework with added resistance of the IMO minimum power level 2 assessment
16:00 - 16:20	<i>Dae-hyun KIM and Sungeun KIM (ABS)</i>
T3-1-2	A study on the maneuvering performance of DARPA SUBOFF using a mathematical model and CFD
16:20 - 16:40	<i>Yunhye LEE, Kwang-jun PAIK and Byeong-u YOU (Inha University)</i>
T3-1-3	Ship as a wave buoy: parametric and non-parametric estimation of directional wave spectra using full-scale and model-test data
16:40 - 17:00	<i>Wuseon SONG, Yooil KIM and Jaehyeon SON (Inha University), Byounghoon JUNG (HD Hyundai Heavy Industries), Kangsu LEE (KRISO)</i>

T3-2

Date	Thursday, October 22, 2026
Time	16:00 - 18:00
Location	Texas 1, 2, 3
Topic	Alternative Fuel in General 3
Chair	Kwang Hyo JUNG (Pusan National University)

T3-2-1	Development of AI-powered real-time port lifecycle assessment digital solution
16:00 - 16:20	<i>Sua CHO, Byongug JEONG, Yongwoo HUR, Jaehan JEON, Injun YANG, Geunsu KIM and Hayoung JANG (University of Strathclyde)</i>
T3-2-2	Engine readiness 2026 - addressing technical challenges in ammonia-fueled engines and fuel supply systems
16:20 - 16:40	<i>Onur SEMIZ and Quaim CHOUDHURY (ABS)</i>
T3-2-3	Experimental study and numerical modeling on vacuum generation in a double-walled liquefied hydrogen tanks
16:40 - 17:00	<i>Jihong AN, Taemin CHO, Taeyoon PARK and Changseon BANG (Samsung Heavy Industries)</i>
T3-2-4	Integrated ammonia gas management system for next-generation marine fuel applications: A unified approach to release mitigation, re-liquefaction, and energy recovery
17:00 - 17:20	<i>Saejeong OH, Jongki LIM, Taehyeong GIM and Yehwan CHUNG (Hanwha Ocean)</i>
T3-2-5	Development of multi-purpose fuel tank with FGSS for LNG/ammonia gas turbine LNG carrier
17:20 - 17:40	<i>Taehyeong GIM, Jongki LIM and Da yeon KANG (Hanwha Ocean)</i>

T3-3

Date	Thursday, October 22, 2026
Time	16:00 - 18:00
Location	Lakeview
Topic	AI and ML Application to Ship & Vehicle Design 3
Chair	Inwon LEE (Pusan National University)

T3-3-1	Design by reward: teaching AI to build better boats
16:00 - 16:20	<i>Austin SHAEFFER, Timothy MCINTYRE, Alexander GRAY and Joseph CAREY (NSWCCD)</i>
T3-3-2	Application of generative AI for hull form generation across ship types: from merchant ships to naval vessels
16:20 - 16:40	<i>Jeongbeom SEO and Inwon LEE (Pusan National University)</i>
T3-3-3	Robust active learning for more efficient and reliable paths to optimal design
16:40 - 17:00	<i>Hayriye Pehlivan SOLAK, Francesco Di FIORE, Laura MAININI (Imperial College London), Jeroen WACKERS (Ecole Centrale de Nantes), Riccardo PELLEGRINI, Andrea SERANI and Matteo DIEZ (National Research Council - Institute of Marine Engineering)</i>
T3-3-4	Guideline-assisted reinforcement learning for vessel navigation using real-world AIS data
17:00 - 17:20	<i>Eunji KANG and Moohyun KIM (Texas A&M University), Iksoon CHO (Korea Maritime & Ocean University)</i>
T3-3-5	Vessel-condition-aware AIS trajectory restoration using a FiLM-conditioned transformer
17:20 - 17:40	<i>Seokho KANG, Jeongon EOM and Sewon KIM (Sejong University), Jeongjae WOO (Korean Register)</i>

T3-4

Date	Thursday, October 22, 2026
Time	16:00 - 18:00
Location	Paluxy
Topic	Marine Autonomy 3
Chair	Donghan WOO (ABS)

T3-4-1 16:00 - 16:40	A unified evaluation method for camera-based object detection under diverse maritime conditions based on reference detectability criteria <i>Hyun CHOI (KRISO)</i>
T3-4-3 16:40 - 17:00	Environment-aware simulation framework for the evaluation of marine autonomous navigation systems in confined waters <i>Mayur Shivaji PATIL, Anthony Salim SAAIBY, Keliang PAN, Nataraj SUDHARSAN, Jiachang XING, Heonyong KANG, Sivakumar RATHINAM and Prabhakar PAGILLA (Texas A&M University), Veneela AMMULA, Jude TOMDIO and Jin WANG (ABS)</i>
T3-4-4 17:00 - 17:20	Toward a self-improving ship heading controller: data-driven learning using sea-trial operational data <i>Siwon KIM, Jin-hyuck SEO, Sunhyuck IM, Seonghyeon KIM, Yeonsu KIM and Jongyong PARK (Pukyong National University)</i>
T3-4-5 17:20 - 17:40	Model-based reinforcement learning for USV docking <i>Yeonsu KIM, Jinhyeok SEO, Sun-hyuck IM, Si-won KIM, Seong-hyeon JEONG, and Jong-yong PARK (Pukyong National University)</i>
T3-4-6 17:40 - 18:00	A study on risk assessment architecture for shore-based remote operation in MASS sea trials <i>Kwanwook CHUN, Geonwoo KIM, Seunghyeon LIM and Hyeonjae JO (KRISO)</i>

T3-5

Date	Thursday, October 22, 2026
Time	16:00 - 18:00
Location	Woodbine
Topic	Marine Structures and Materials 3
Chair	Jung min SOHN (Pukyong National University)

T3-5-1	Study on prediction of welding residual stress and deformation in cryogenic steel
16:00 - 16:20	<i>Ho-sang JANG, Woo-min CHO and Seong-tak OH (Hyundai Steel Company)</i>
T3-5-2	Structural crashworthiness analysis of a 15,000 TEU SMR-powered container ship under collision accidents
16:20 - 16:40	<i>Jae kang LEE, Wonseok CHOI, Jin hyung KIM, Dong hyeon KIM, Gi ryeol PARK and Jung min SOHN (Pukyong National University), Dongwook KIM (KRISO)</i>
T3-5-3	Isogeometric analysis-based comparative study on ship hull spatial shell structures
16:40 - 17:00	<i>Zhijie DAI, Yuheng JI, Chuntong LI and Deyu WANG (Shanghai Jiao Tong University), Chun FANG, Pengyu WEI and Zeyu DAI (National Key Laboratory of Ship Structural Safety)</i>
T3-5-4	Prolonging the operational life of FPSO and SPM CALM buoy systems through hull and deck plate enhancement.
17:00 - 17:20	<i>Chigozie EBUNUOHA (Offshore Technology Institute, University of Port), Saturday Genuine EBIGENIBO and Celestine EBIETO (University of Port Harcourt)</i>

T4-1

Date	Friday, October 23, 2026
Time	10:10 - 12:10
Location	Texas 5, 6, 7
Topic	Ship Performance in General 4
Chair	Sang-eui LEE (Changwon National University)

T4-1-1	Enhancing vessel power prediction using sea trials and wind added resistance
10:10 - 10:30	<i>Orfeas BOURCHAS and George PAPALAMBROU (National Technical University of Athens)</i>
T4-1-2	A numerical study on the performance of a contra-rotating propeller according to immersion depth and regular wave
10:30 - 10:50	<i>Jun-young CHOI, Kwang-jun PAIK and Sua JEONG (Inha University)</i>
T4-1-3	Numerical analysis for scale effects and resistance extrapolation methods of the DARPA SUBOFF submarine
10:50 - 11:10	<i>Heewon CHO, Kwang-jun PAIK and Byeong-u YOU (Inha University)</i>
T4-1-4	Effect of boundary conditions on the flow characteristics around a rotating circular cylinder
11:10 - 11:30	<i>Sang-eui LEE (Changwon National University) and Byung-hyuk LEE (HD Korea Shipbuilding & Offshore Engineering)</i>

T4-3

Date	Friday, October 23, 2026
Time	10:10 - 12:10
Location	Lakeview
Topic	AI & Digitalization 1
Chair	Mingi JEONG (Virginia Tech)

T4-3-1	From roughness to readiness: the science of surfaces in additive manufacturing
10:10 - 10:30	<i>Bart RAEYMAEKERS, Kubra SEKMENT, Samsul MAHMOOD and Piash BHOWMIK (Virginia Tech)</i>
T4-3-2	Enhancing hull structural response reconstruction by wave-induced modal approach with MLP-generated virtual sensors
10:30 - 10:50	<i>Seungyoung LEE, Kyoungtae KIM and Wonki MOON (Korean Register), Keunbok SONG (HD Hyundai Heavy Industries)</i>
T4-3-3	Analysis of berth waiting and Its reduction through just-in-time arrival: A case study of pusan newport international terminal
10:50 - 11:10	<i>Juhyang LEE, Hungyu HWANG, Duhyeon JANG and Jeonghun SEO (Research Institute of Medium & Small Shipbuilding)</i>
T4-3-4	Development and application of vibration monitoring technology for marine engine room equipment
11:10 - 11:30	<i>Yihuai HU (Shanghai Maritime University)</i>
T4-3-5	Case study of a digital platform for production collaboration between shipyards and suppliers
11:30 - 11:50	<i>Jin-hyung PARK, Younghak CHUN, Jeea BAIK, Changsub SONG and Jaehyung CHO (Research Institute of Medium & Small Shipbuilding)</i>

T4-4

Date	Friday, October 23, 2026
Time	10:10 - 12:10
Location	Paluxy
Topic	Maritime Autonomous Surface Ships 1
Chair	Geun-tae YIM (KRISO)

T4-4-1	Cybersecurity across the shipbuilding lifecycle: why early design intent matters
10:10 - 10:30	<i>Sean RYAN (ABS)</i>
T4-4-2	Dwell time prediction under MASS Code-based port arrival scenarios: effects of information availability on JIT operations
10:30 - 10:50	<i>Jeongon EOM, Seokho KANG and Sewon KIM (Sejong University)</i>
T4-4-3	Design of a shadow mode-based AI data acquisition system for autonomous ships
10:50 - 11:10	<i>Seunghyeon LIM, Hyun-jae JO, Kwanwook CHUN and Geun-tae YIM (KRISO)</i>
T4-4-4	Robust quay wall detection for ship berthing assistance using 3D LiDAR under fender and field-of-view constraints
11:10 - 11:30	<i>Seong-hyeon JEONG, Jin-hyeok SEO, Sun-hyuck IM, Si-won KIM, Yeon-su KIM, and Jong-yong PARK (Pukyong National University)</i>

T4-5

Date	Friday, October 23, 2026
Time	10:10 - 12:10
Location	Woodbine
Topic	Marine Resources & Renewable Energy 2
Chair	Tyson BREEDLOVE (ABS)

T4-5-1	Safety issues and smart monitoring of deepsea mining system by using DT/AI
10:10 - 10:30	<i>Moohyun KIM (Texas A&M University), Kunho KIM, Zhongfu GE and Tyson BREEDLOVE (ABS)</i>
T4-5-2	Shape optimization of a 15MW FOWT substructure for motion response minimization under site-specific metocean conditions
10:30 - 10:50	<i>Hyun jung PARK and Kwang hyo JUNG (Pusan National University), Yun suk CHUNG (Bureau Veritas Korea), Dong woo JUNG (KRISO)</i>
T4-5-3	Current development status and future plans for the prototype of concave-shaped multi-flap wingsail technology by KRISO
10:50 - 11:10	<i>Kwangseok LEE, Seungwoo HAN, Yunho KIM, Junhyung PARK, Bonggi CHOI and HeeJin KANG (KRISO), Yeon-seung LEE (Hongik University)</i>
T4-5-4	Improving wind direction tracking of a single point moored floating offshore wind turbine using differential thrust control
11:10 - 11:30	<i>Jaehoon KIM, Dongmyung IM and Yoon hyeok BAE (Hongik University), Javier FERNANDEZ and Pablo ZAMBRANA (EnerOcean S.L)</i>
T4-5-5	The expanding role of unmanned aerial vehicles in maritime inspections
11:30 - 11:50	<i>Georgios KOUTSOUMPAS, Austin CWIKLIK, Eric VANDERHORN, Chris LEONTOPOULOS and Costas XIDIS (ABS)</i>

T5-1

Date	Friday, October 23, 2026
Time	13:40 - 15:40
Location	Texas 5, 6, 7
Topic	Design & Production of Marine Systems
Chair	Tae-ryong CHOI (HD Hyundai Samho)

T5-1-1 16:00 - 16:20	Application of risk based winterization: a case study <i>Ed MOAKLER, Michael GRANT and Dan OLDFORD (ABS)</i>
T5-1-2 16:20 - 16:40	Introduction to the application of aluminum sector cables in ships <i>Jeong ho KIM and Tae ryong CHOI (HD Hyundai Samho), Seon-min YOUN (HD Hyundai Samho)</i>
T5-1-3 16:40 - 17:00	Research on comparative analysis of ship hull spatial shell structures based on isogeometric Method <i>Chuntong LI, Zhijie DAI, Yuheng JI, Pengyu WEI, Chun FANG and Deyu WANG (Shanghai Jiao Tong University)</i>

T5-2

Date	Friday, October 23, 2026
Time	13:40 - 15:40
Location	Texas 1, 2, 3
Topic	Advances in Maritime Life Cycle Assessment: Methods, Data, and Applications
Chair	Harish PATEL (Corporate Technology)

T5-2-1	PEMFC durability evaluation for marine application
13:40 - 14:00	<i>Jae hong KIM, Jae heon KWON, Seon hyeong LEE, Hyun PARK and Kwang hyo JUNG (Pusan National University), Sanghoon LEE (Pureuntek Energy)</i>
T5-2-2	Development of a data-driven framework for scenario-based economic evaluation of commercial vessels considering operational profiles
14:00 - 14:20	<i>Nakyong CHOI (HD Korea Shipbuilding & Offshore Engineering, Inha University), Kwang-jun PAIK (Inha University)</i>
T5-2-3	Introduction to dynamic failure mode and effects analysis for using hydrogen as marine fuel
14:20 - 14:40	<i>Yoon CHOI and Byongug JEONG (University of Strathclyde)</i>
T5-2-4	Risk assessment of rotor sail wind-assisted propulsion systems
14:40 - 15:00	<i>Hadis EBRHIMI and Harish PATEL (Corporate Technology)</i>

T5-3

Date	Friday, October 23, 2026
Time	13:40 - 15:40
Location	Lakeview
Topic	AI & Digitalization 2
Chair	Wook KWON (KOMERI)

T5-3-1	Advanced machine learning architectures for multi-component emission prediction and energy optimization in cruise vessels
13:40 - 14:00	<i>Chenxi JI and Zijing WANG (ABS)</i>
T5-3-2	Development and validation of an integrated framework for automated ship structural strength assessment with machine learning prediction
14:00 - 14:20	<i>Jaewook AHN, Shinwoo JANG and Jinsu SON (RaonX Solutions)</i>
T5-3-3	A novel ship energy efficiency assessment method based on equipment degradation index
14:20 - 14:40	<i>Yihuai HU and Huiru GUO (Shanghai Maritime University)</i>

T5-4

Date	Friday, October 23, 2026
Time	13:40 - 15:40
Location	Paluxy
Topic	Maritime Autonomous Surface Ships 2
Chair	Jong-yong PARK (Pukyong National University)

T5-4-1	Radiometric field-adaptive thermal buoy detection under dynamic maritime conditions
13:40 - 14:00	<i>Kyungwon BAE, Joowan KIM, Changyeol JEE and Hyun joe KIM (Samsung Heavy Industries)</i>
T5-4-2	RoI-based VLM for data-efficient AtoN classification
14:00- 14:20	<i>Sun-hyuck IM, Si-won KIM, Jin-hyeok SEO, Seong-hyeon JUNG, Yeon-su KIM and Jong-yong PARK (Pukyong National University)</i>
T5-4-3	Selective SSM-based auto-gain tuning predictive PD controller for real-world time-varying dynamics in time-delay systems
14:20 - 14:40	<i>Jin hyeok SEO, Sun-hyuck IM, Si-won KIM, Seong-hyeon JEONG, Yeon-su KIM and Jong-yong PARK (Pukyong National University)</i>
T5-4-4	Extended BIT-based collision-free path planning for autonomous ships under positional uncertainty in confined port environments
14:40 - 15:00	<i>Sojin KIM (University of Science and Technology (UST)), Jeonghong PARK (KRISO)</i>

T5-5

Date	Friday, October 23, 2026
Time	13:40 - 15:40
Location	Woodbine
Topic	Marine Resources & Renewable Energy 3
Chair	Seung jae LEE (Korea Maritime & Ocean University)

T5-5-1	Modelling of the low frequency behavior of the floating systems: second order model and nonlinear Froude Krylov + nonlinear hydrostatic model
13:40 - 14:00	<i>Sime MALENICA, George JAGITE and Igor TEN (Bureau Veritas Marine and Offshore)</i>
T5-5-2	Parametric study of sum frequency load for TLP FOWT in frequency domain
14:00 - 14:20	<i>Won-jun CHOI and Seung jae LEE (Korea Maritime & Ocean University), Yong-uk RYU (Chonnam National University)</i>
T5-5-3	Long term wave induced motion prediction of FOWTs using Fourier neural operator with time series decomposition
14:20 - 14:40	<i>Gwanwoo PARK, Seung jae LEE and Hae-young LIM (Korea Maritime & Ocean University), Min-jun LEE (Tsinghua University)</i>
T5-5-4	Experimental and numerical investigation of the ultimate torsional behavior of wind turbine tower structures
14:40 - 15:00	<i>Won seok CHOI, Jin hyung KIM, Dong hyeon KIM, Jae kang LEE, Gi ryeol PARK and Jung min SOHN (Pukyong National University), Sang jin KIM (National Sun Yat-sen University)</i>
T5-5-5	Performance verification of coastal vessels equipped with rotor sails
15:00 - 15:20	<i>Junghyung PARK, Yunho KIM, Kwangseok LEE, Bonggi CHOI and Heejin KANG (KRISO)</i>
T5-5-6	Experimental investigation of lithium-ion Battery thermal runaway fire behaviour in marine battery rooms
15:20 - 15:40	<i>Ong Wen QI, Chong Mei YAN, An HUI, Tay Chung BENG, Soh Chew BENG, Wang Peng CHENG, Elisa Ang Yun MEI and Kanagalingam SIVAMOORTHY (KRISO)</i>