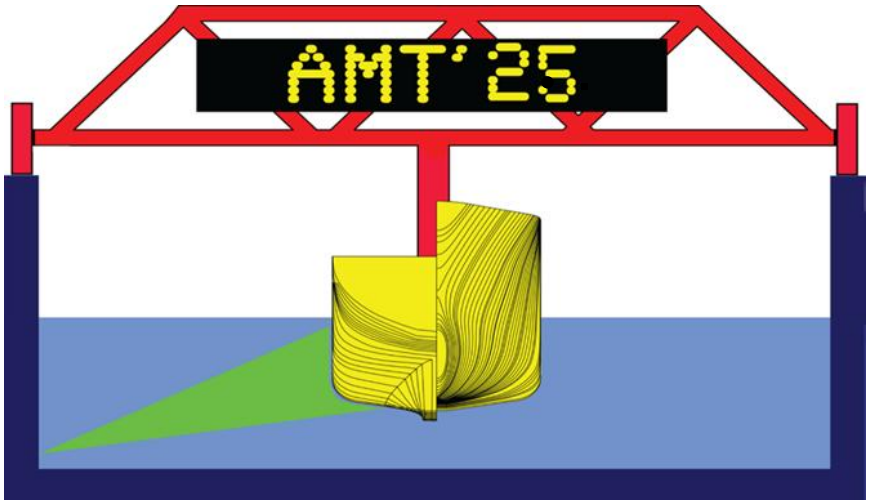
The 8th International Conference on Advanced Model Measurement Technology for the Maritime Industry (AMT'25)



29-31 October 2025, Daejeon, Republic of Korea

AMT'25 is organised by the Hydro-Testing Forum (HTF) members and hosted by the Korea Research Institute of Ships and Ocean (KRISO) in Daejeon

AMT'25 Conference Programme

University of Strathclyde

HTF HYDRO-TESTING FORUM

KRISO KOREA RESEARCH INSTITUTE OF SHIPS & OCEAN ENGINEERING

대한조선학회 THE SOCIETY OF NAVAL ARCHITECTS OF KOREA 1952

The 8th International Conference on
Advanced Model Measurement Technology for the
Maritime Industry (AMT'25)

AMT'25 Conference Programme

	(Day 1) 29th of October 2025
Time	Events & Locations
8:00-9:00	**Registry & Coffee/Tea** (Daejeon Conference Centre [DCC] – Lobby)
9:00-9:15	**Opening Ceremony:** Welcome speeches Chair: TBC (Daejeon Conference Centre [DCC] – Room 101-102)
9:15-10:15	**KEYNOTE PRESENTATION 1 –** Hydrodynamic Model Testing: Where we stand and where we are headed? *Dr Hyun-ho Lee, Executive Vice President & Research Director, Hyundai Maritime Research Institute, Republic of Korea* Chair: TBC (DCC – Room 101-102)
10:15-10:45	**Refreshments** (DCC – Lobby)

10:45-12:15	**Session 1A – Cavitation, Erosion and Underwater Radiated Noise Model Tests and Numerical Modelling** Chair: TBC (DCC - Room 101-102)	**Session 1B – Special Vessel Operations** Chair: TBC (DCC - Room 103-104)
10:45-11:15	PAPER 1 - Aspects of Source Level Estimation from Sound Measurements In MARIN's Depressurised Wave Basin *dos Santos, FL et al., Maritime Research Institute Netherlands (MARIN), The Netherlands.*	PAPER 44 - Development of Manoeuvring Models of a Korea Autonomous Surface Ship 'Haeyang Nuri' Based on Model- and Full-Scale Tests *Kim, D-J et al., Korea Research Institute of Ships and Ocean Engineering, Republic of Korea*
11:15-11:45	PAPER 20 - Computer Vision Analysis of Cavitation Erosion at the Propeller Blade Root *Franzosi, G. et al., University of Genoa, Italy.*	PAPER 48 - Numerical Study of a Crew Transfer Vessel (CTV) – Wind Turbine Interaction under Moderate Sea Conditions *Gurkan, A.Y. et al., The University of Strathclyde, Glasgow, UK.*
11:45-12:15	PAPER 37 - Numerical and Experimental Investigation of Vortex Structures on Hydrofoils. *Ozsayan, S. et al., Istanbul Technical University, Turkey.*	PAPER 27 - Operational Speed Trial for Full-Load Performance Assessment: A Case Study of a Large Container Vessel *Lee, J-H et al., Korea Research Institute of Ships and Ocean, Daejeon, Korea*
12:15-13:30	**Lunch** (DCC – Lobby)	

13:30-15:00	**Session 2A – Smart Model Testing Technologies for Propulsion** Chair: TBC (DCC - Room 101-102)	**Session 2B – Miscellaneous Smart Model Testing Technologies** Chair: TBC (DCC - Room 103-104)
13:30-14:00	PAPER 4 - Development and Assessment of a Propeller Shaft Load Measurement System *Islam, A. et al., National Research Council of Canada, Canada*	PAPER 3 - Development of an Omni-Directional Hydrodynamic Model for Offshore Wind Turbine Platform Based on Singular Value Decomposition *Huang, PY et al., National Taiwan University, Taipei, Taiwan.*
14:00-14:30	PAPER 11 - Experimental Investigation of a Model-Scale Rim-Driven Thruster: Open Water Performance Estimation *Joo S. et al., Seoul National University, Korea*	PAPER 28 - High-Speed Towing Tank Experiments for Air Bubble Drag Reduction in Ships *Lee, KU et al. Hyundai Maritime Research Institute (HMRI), South Korea.*
14:30-15:00	PAPER 25 - Towing Tank Experiment for Full-Scale Performance Prediction of Complicated Energy Saving Device using Boundary Layer Similarity Model *Katayama, S. et al., Imabari Shipbuilding Co., Ltd., Japan*	PAPER 35 - Impact of UVC Exposure on Hydrodynamic Performance of Antifouling Paint in Wave and Tidal Energy Generators *Ryan, E. et al., Newcastle University, UK.*
15:00-15:30	**Refreshments** (DCC – Lobby)	
15:30-17:30	**Session 3A – LDA / (S)PIV Applications with Propellers in Model Tests** Chair: TBC (DCC - Room 101-102)	**Session 3B – Uncertainty in Model Tests** Chair: TBC (DCC - Room 103-104)
15:30-16:00	PAPER 15 - Tip-vortex interaction in a contra-rotating propeller via LDV *Alves Pereira, F. et al., CNR-INM, Rome, Italy*	PAPER 9 - Comparison of Two Tracking Systems Under Manoeuvring Conditions *Rzeszutko J. et al., Development Centre for Ship Technology and Transport Systems (DST), Duisburg, Germany*
16:00-16:30	PAPER 10 - SPIV and Acoustic Measurements for Examining Effects of Propeller Boss Cap Fins (PBCF) on Hub Vortex Suppression *Kao, H-C, National Taiwan Ocean University, R.O.C.*	PAPER 23 - A Monte-Carlo Approach to Using Uncertainties in Hydrodynamic Model Testing *Kimber, N and Thompson, N., QinetiQ, United Kingdom*
16:30-17:00	PAPER 16 - Experimental Investigation of Propeller Near-Wake Topology Under Wind-Assisted Conditions using Stereo PIV and Shake-The-Box *Jacobi, G., Delft University of Technology, Netherlands*	PAPER 31 - Characterization of Residual Effects in a Shallow Water Towing Tank *Roettig, F. et al., Development Centre for Ship Technology and Transport Systems (DST), Duisburg, Germany*
17:00-17:30	PAPER 38 - Experimental Investigation of Propeller Hydrodynamics and Cavitation Performance in a Cavitation Tunnel *Foley, B., et al., Memorial University of Newfoundland, St. John's, Canada*	PAPER 50 - Uncertainty Assessment in Fully Turbulent Flow Channel Tests of Panels Coated with Marine Coatings *Koksal, S.C. et al., The University of Strathclyde, Glasgow, UK.*
17:30 -19:00	**Reception with Canapes & Drinks** (DCC – Lobby)	
19:00	**END OF FIRST DAY**	

	(Day 2) 30th of October 2025
Time	Events & Locations
8:00-9:00	**Registry & Coffee/Tea** (Daejeon Conference Centre [DCC] – Lobby)
9:00-10:00	**KEYNOTE PRESENTATION 2 –** The Gate Rudder System: A Game Changer for Ship Propulsion and Steering *Prof (Hon) Noriyuki Sasaki, University of Strathclyde, Glasgow, UK* Chair: TBC (DCC – Room 101-102)
10:00-10:30	**Refreshments** (DCC – Lobby)

10:30-12:30	**Session 4A – Wind Assisted Propulsion Model Tests & Numerical Modelling Technologies** Chair: TBC (DCC - Room 101-102)	**Session 4B – Biomimetic Applications with Model Tests & Numerical Modelling** Chair: TBC (DCC - Room 103-104)
10:30-11:00	PAPER 2 - Wind Tunnel Tests of a Wind-Powered Car Carrier *Blackert, E. et al. KTH Royal Institute of Technology, Wallenius Marine, Sweden*	PAPER 6 - Numerical Investigation of the Effect of Biomimetic Tubercles on the Hydrodynamic Resistance of a Flat Plate. *Marino, A. et al., Fincantieri S.p.A., Italy & University of Strathclyde, UK*
11:00-11:30	PAPER 30 - Experimental analysis of resistance performance and roll motion characteristics of wind-assisted wing sail vessels using SIL system *Min, G. et al. Department of Naval Architecture & Ocean Engineering, Inha University, Republic of Korea.*	PAPER 8 - Systematic Hydrodynamic, Performance, and Acoustic Analysis of Biomimetic Solutions for Marine Propellers *Felli, M. et al., Institute of Marine Engineering, National Research Council, Italy*
11:30-12:00	PAPER 33 - A CFD-Based Performance Assessment of Roller Wing Sail For Wind Assisted Ship Propulsion *Lee, I. et al, Pusan National University, Republic of Korea*	PAPER 43 - An Improved Experimental Workflow to Evaluate Performance of Passive Drag Reduction Methods. *Fiedoruk, A. et al., University of Strathclyde, UK*
12:00-12:30	PAPER 29 - Evaluation of Manoeuvring Performance Under External Forces Using a Duct Fan-Type Auxiliary Thruster In Free-Running Model Tests *Lee, K.-M. et al., HD Hyundai Heavy Industries, Republic of Korea*	PAPER 17 - Numerical and Experimental Investigation on the Behaviour of Biomimetic Tubercles In A Fully Turbulent Flow Channel at High Reynolds Numbers *Marino, A. and Atlar, M, The University of Strathclyde, Glasgow, UK*
12:30-13:30	**Lunch** (DCC – Lobby)	

13:30-15:00	**Session 5A – Gate Rudder Systems: Design Applications** Chair: TBC (DCC - Room 101-102)	**Session 5B - Further Biomimetics, Wave-Drone and Mini-Submarine Applications** Chair: TBC (DCC - Room 103-104)
13:30-14:00	PAPER 39- Exploration of Propulsion Performance of a Gate Rudder Retrofitted Vessel with a Tunnel Stern *Gurkan, A.Y., et al., The University of Strathclyde, Glasgow, UK.*	PAPER 19 - Research on The Effect of Ship Swing Foil on Reducing Resistance and Increasing Thrust *Zhou, J. et al., Harbin Institute of Technology (Weihai), Republic of China.*
14:00-14:30	PAPER 5 - Gate Rudder System Application to Wide Area of Ocean-going vessels *Sasaki, N. and Atlar, M., The University of Strathclyde, Glasgow, UK*	PAPER 47 – Wave Drone: Feasibility Study on A Short-term Wave Elevation Measurement Method. *Song, F. et al. The University of Strathclyde, Glasgow, UK.*
14:30-15:00	PAPER 40 - Gate Rudder System Performance Prediction for Different Rudder Modes: A Comparative Study of Sliding Mesh and Actuator Disk CFD Models *Gurkan, A.Y. et al., The University of Strathclyde, Glasgow, UK.*	PAPER 7 - Design and Construction of a Large-Scale Underwater Test Vehicle Multi-Purpose Mini Submarine *Ozden, C., Istanbul Technical University, Istanbul, Turkey*
15:00-15:30	**Refreshments** (DCC – Lobby)	
15:30-17:30	**Session 6A – Hydrogen and Electric Ship Propulsion Technologies** Chair: TBC (DCC - Room 101-102)	**Session 6B – Further SPIV Applications and Smart Biofilm Farm Development** Chair: TBC (DCC - Room 103-104)
15:30-16:00	PAPER 41 - Hydrogen-Powered Research Vessel Design *Koksal, S.K. et al., The university of Strathclyde, Glasgow, UK.*	PAPER 46 – Experimental Study on the Hydrodynamic Performance of a Pump-Jet Propulsor Compared to a Conventional Propeller *Felli, M. CNR, Rome, Italy*
16:00-16:30	PAPER 34 - Energy, Emissions and Economics: A Measured Approach to Electric Tug Design *Nugent, L., et al., The University of Strathclyde, Glasgow, UK.*	PAPER 32 – Practical Issues in Stereoscopic-PIV Measurements for The Nominal Wake Fields in Regular Head Waves *Lee, J. et al., Korea Research Institute of Ships and Ocean, Daejeon, Korea*
16:30-17:00	PAPER 36 - Innovative solution for retrofitting diesel to electric CTVs with H2 as a range extender *Turkmen, S., et al., Tallinn University of Technology, Estonia*	PAPER 12 - Evaluation of Stereo PIV for Towing Tank Investigation of Hull-Propeller-Rudder Interaction in Waves *Sin, T.D. et al., Southampton University, Southampton, UK.*
17:00-17:30	PAPER 42 - Multi-Element Gas Container Failure Scenario-Based Hydrogen Dispersion Modelling *Koksal, S.K. et al., The University of Strathclyde, Glasgow, UK.*	PAPER 45 - Design and Commissioning of an Effective Biofilm Cultivating Farm for Drag Reduction and Coating Performance Investigations *Atlar, M., et al., The University of Strathclyde, Glasgow, UK*
18:30-22:00	**Conference Banquette** (Lotte City Hotel - Crystal Ball Room) (one-minute walk from DCC)	
22:00	**END OF TECHNICAL PRESENTATIONS & SECOND DAY**	

	(Day 3) 31st of October 2025	
Time	Events & Location	
09:00–12:00	**Coffee/Tea** (Daejeon Conference Centre [DCC] – Room 101-102)	
09:30 -12:00	**GUIDED VISIT TO THE KRISO TESTING FACILITIES**	
Group 1	09:30 – 09:50	DCC to KRISO by bus
	10:00 – 10:30	Ice Tank
	10:30 – 11:00	Large Cavitation Tunnel
	11:00 – 11:30	Ocean Engineering Basin
	11:30 – 11:50	KRISO to DCC by bus
Group 2	10:10 – 10:30	DCC to KRISO by bus
	10:30 – 11:00	Ice Tank
	11:00 – 11:30	Large Cavitation Tunnel
	11:30 – 12:00	Ocean Engineering Basin
	12:00 – 12:30	KRISO to DCC by bus
12:30	**END OF THE CONFERENCE**	

AMT'25 Conference Programme

(Day 1) 29th of October			(Day 2) 30th of October		(Day 3) 31st of October		
Time	**Events & Locations**		**Time**	**Events & Locations**	**Time**	**Events & Locations**	
8:00-9:00	**Registry & Coffee/Tea** DCC – Lobby		8:00-9:00	**Registry & Coffee/Tea** DCC – Lobby	9:00-12:00	**Coffee/Tea** DCC – Room 101-102	
9:00-9:15	**Opening Ceremony** DCC – Room 101-102		9:00-10:00	**KEYNOTE PRESENTATION 2** DCC – Room 101-102	09:30 -12:00	**GUIDED VISIT TO THE KRISO TESTING FACILITIES**	
9:15-10:15	**KEYNOTE PRESENTATION 1** DCC – Room 101-102				Group 1	09:30 – 09:50 10:00 – 10:30 10:30 – 11:00 11:00 – 11:30 11:30 – 11:50	DCC to KRISO by bus Ice Tank Large Cavitation Tunnel Ocean Engineering Basin KRISO to DCC by bus
10:15-10:45	**Refreshments** (DCC – Lobby)		10:00-10:30	**Refreshments** (DCC – Lobby)			
10:45-12:15	**Session 1A** DCC Room 101-102	**Session 1B** DCC Room 103-104	10:30-12:30	**Session 4A** DCC Room 101-102	**Session 4B** DCC Room 103-104		
12:15-13:30	**Lunch** (DCC – Lobby)		12:30-13:30	**Lunch** (DCC – Lobby)	Group 2	10:10 – 10:30 10:30 – 11:00 11:00 – 11:30 11:30 – 12:00 12:00 – 12:30	DCC to KRISO by bus Ice Tank Large Cavitation Tunnel Ocean Engineering Basin KRISO to DCC by bus
13:30-15:00	**Session 2A** DCC Room 101-102	**Session 2B** DCC Room 103-104	13:30-15:00	**Session 5A** DCC Room 101-102	**Session 5B** DCC Room 103-104		
15:00-15:30	**Refreshments** (DCC – Lobby)		15:00-15:30	**Refreshments** (DCC – Lobby)			
15:30-17:30	**Session 3A** DCC Room 101-102	**Session 3B** DCC Room 103-104	15:30-17:30	**Session 6A** DCC Room 101-102	**Session 6B** DCC Room 103-104		
17:30 -19:00	**Reception with Canapes & Drinks** (DCC – Lobby)		18:30-22:00	**Conference Banquette** (DCC – Lobby)			
19:00	**END OF FIRST DAY**		22:00	**END OF TECHNICAL PRESENTATIONS & SECOND DAY**	12:30	**END OF THE CONFERENCE**	