

XXI MARINE TRAFFIC ENGINEERING CONFERENCE		
MTE 2026 CONFERENCE PROGRAMME		
 MTE 2026 Kongsberg Maritime 		
23.09.2026 Wednesday		
12:00 - 13:00	Registration (Maritime University of Szczecin, Faculty of Economics and Transport Engineering, 4 Szczerbcowa Str., ground floor)	
13:00 - 14:00	Welcome Lunch (Room 4, I floor, MUS)	
14:00 - 14:30	Opening Ceremony: Welcome Addresses; Executive Chair, Dean of Navigation Faculty MUS - Paweł Zalewski, Vice-Rector for Maritime Affairs of MUS - Arkadiusz Tomczak (Room 6 - R6)	
14:30 - 17:20	Plenary keynote session and invited papers: Contemporary research in marine traffic engineering	
	Chair: Paweł Zalewski	
14:20 - 14:40	Marcin Życzkowski, Filip Zarzycki, Piotr Sarnowski, Mateusz Gutkowski, Fabian Gajgał, Paweł Chodnicki, Jakub Montewka : Safe and efficient winter navigation through integrated risk and ship performance modelling	
14:40 - 15:00	Michael Bergmann : Shore-based decision support recommendations for traffic situations involving highly automated or autonomous ships	
15:00 - 15:20	Marko Perkovic, Peter Vidmar, Lucjan Gucma, Maciej Gucma : Meteosat multispectral detection and reconstruction of the Arctic Metagaz LNG release and fire	
15:20 - 15:40	Paweł Zalewski , Michalina Gucma: Human error causes in the maritime domain: behavioral competency domains	
15:40 - 16:00	Coffee break (Room 4, I floor, MUS)	
16:00 - 16:20	Teresa Abramowicz-Gerigk, Mirosław Gerigk : Application of USV-WIG and AUV platforms hybrid system for monitoring and reconnaissance	
16:20 - 16:40	Selahattin Alan, Elif Bal Beşikçi, Michael Baldauf : Risk factors affecting the interaction dynamics between maritime pilots and tug masters within Vessel Traffic Services	
16:40 - 17:00	Lucas Paes Moreira , Michailas Romanovas: On multiple extended object tracking with coastal X-band radars for maritime surveillance	
17:00 - 17:20	Janusz Szpytko : How marine traffic engineering and safety of navigation support sustainable development?	
19:30	Gala Dinner (conference room at Hanza Tower, V floor, Hotel Dana Business & Conference, al. Wyzwolenia 50, Szczecin, evening wear)	
24.09.2026 Thursday		
09:30 - 10:00	Welcome coffee (Maritime University of Szczecin, Faculty of Economics and Transport Engineering, 4 Szczerbcowa Str., I floor, Room 4)	
10:00 - 11:20	R6_1 parallel specialist session: Characteristics of ships and harbours	R5_1 parallel specialist session: Maritime PNT and sensors
	Chair: Teresa Abramowicz-Gerigk	Chair: Michael Bergmann
10:00 - 10:20	Jarosław Artyszuk : Performance of nonlinear Nomoto models in terms of zigzag manoeuvre	Krzysztof Jaskólski : Inertial Measurement Unit stability determined based on Allan variance
10:20 - 10:40	Paweł Chorab : Regression-based prediction of wave-induced initial metacentric height variation of a container ship in the context of second generation intact stability criteria	Fabian Gajgał , Marcin Życzkowski, Jakub Montewka: Classification of extreme AIS spoofing scenarios in the Southern Baltic Sea
10:40 - 11:00	Volodymyr Pogorielov, Marcin Przywarty , Rafał Gralak: Analysis of Wind Assisted Propulsion Systems	Piotr Miduch , Kamil Krasuski, Janusz Cwiklak, Radosław Fellner: Assessment of the accuracy of GPS & UK SBAS positioning in air navigation
11:00 - 11:20	Jarosław Myśków : Possibilities of PM reduction from diesel engines	Artur Żuliński, Mateusz Bilewski : Repeatable evaluation of GNSS positioning quality based on real-world radio signal recordings
11:20 - 11:40	Coffee break (Room 4, I floor, MUS)	
11:40 - 13:00	R6_2 parallel specialist session: Safety of maritime transport	R5_2 parallel specialist session: Methodology of risk assessment
	Chair: Lucjan Gucma	Chair: Jakub Montewka
11:40 - 12:00	Mateusz Gil : How much does cooperation matter? Pair-indexed critical areas for collision avoidance of autonomous ships	Marin Hero, Marko Perkovic, Peter Vidmar: Emission resilience of the Shanghai-Koper green shipping corridor under geopolitical disruptions: A system dynamics sensitivity analysis (presenter: Maciej Gucma)
12:00 - 12:20	Dhanushka Liyanage, Kristjan Tabri: Multi-modal sea-ice mapping method to enhance the temporal resolution of ice charts for winter navigation (presenter: Martti Rand)	Andrzej Bąk : Bayesian Network manoeuvre-state perception for restricted-waterway navigation: A calibrated, confidence-aware module for autonomous and shore-supported operation
12:20 - 12:40	Przemysław Kowalak , Jarosław Myśków: Navigational safety and the methodology of ship-crew training using digital twins—Real-time simulators	Sławomir Świerczyński , Piotr Zwolan: Offshore wind farms in the Baltic Sea and navigational safety
12:40 - 13:00	Agnieszka Kerbrat , Sambor Guze: Preliminary decision-making stochastic model of ship safety in waters with restricted navigational areas – case study of deep-water track in south part of the Kattegat	Marcin Życzkowski, Filip Zarzycki, Piotr Sarnowski, Mateusz Gutkowski, Fabian Gajgał, Paweł Chodnicki, Jakub Montewka , Jon-Arve Royset, Osiris Valdez Banda, Valtteri Laine: Dynamic winter navigation risk assessment in the Baltic Sea: Development and integration of WINRI within the OpenRisk II project
13:00 - 14:00	Lunch (Room 4, I floor, MUS)	
14:00 - 15:45	R6_3 Poster Session (5 minutes posters, oral, Power Point, whiteboard)	
	Chair: Mariusz Wąż	
	1	Irmina Durlik , Tymoteusz Miller: AIS- and ENC-based characterization of vessel traffic in the Houston Ship Channel using the AISTk framework: A pilot study
	2	Artur Grządziel , Dominik Iwen, Mariusz Wąż: Hydrographic surveys in shallow and ultra-shallow waters – Technical solutions used at the Polish Naval Academy
	3	Jacek Jachowski , Marta Schoeneich: Assessment of inland barge squat and under-keel clearance in bridge areas
	4	Marcin Przywarty, Mateusz Bilewski, Stefan Jankowski , Joanna Morawska: Development and validation of a low-cost energy efficiency sensor for cargo-handling equipment
	5	Agnieszka Nowy : Investigating the role of meteorological conditions in lateral ship traffic distribution: a GAMLSS approach
	6	Tomasz Praczyk , Stanisław Hożyń, Krzysztof Naus: Acoustic distance-based system for in-swarm low-cost underwater navigation
	7	Kinga Łazuga , Remigiusz Dzikowski: Offshore wind development and fisheries: Spatial overlap between historical fishing activity and planned wind farm areas in the Southern Baltic Sea
	8	Aleksandra Chelstowska , Katarzyna Posacka, Piotr Łobacz: Safety management on merchant and passenger ships - a comparative analysis based on selected cases
	9	Lech Kasyk , Anna Wolnowska, Krzysztof Pleskacz: Mathematical model of LNG fuel demand for trucks traveling on the A4 motorway in Poland
	10	Rafał Gralak , Lucjan Gucma: Assessment of the impact of waterfront development on visual and radar-based navigation safety: A case study of the Karsibór Marina
	11	Tadeusz Szelangiewicz , Katarzyna Żelazny, Przemysław Mańkowski: Innovative mobile floating dock with reduced light weight
15:45 - 16:15	Coffee break (Room 4, I floor, MUS)	
16:30 - 18:30	Visiting the Academic Simulator Centre of Maritime University of Szczecin (Maritime University of Szczecin, 1-2 Waly Chrobrego Str.)	
19:30 - 23:00	Dinner (at restaurant - Browar Pod Zamkiem, 12 Panieńska Str., Szczecin Old Town)	
25.09.2026 Friday		
09:30 - 10:00	Welcome coffee (Maritime University of Szczecin, Faculty of Economics and Transport Engineering, 4 Szczerbcowa Str., I floor, Room 4)	
10:00 - 11:20	R6_4 Specialist session: E-Navigation & MASS	
	Chair: Maciej Gucma	
10:00 - 10:20	Mirosław Wielgosz , Zbigniew Pietrzykowski, Kordian Breitenbach , Oskar Desecki: Does a hybrid domain-informed and learned feature graph improve five-step route-relative trajectory prediction for a single vessel?	
10:20 - 10:40	Wiesław Juskiewicz , Anna Żukowska: The full mission bridge simulator use in automatic assessment of navigator's competence during navigation in restricted areas	
10:40 - 11:00	Dorota Sady-Kalska , Mirosław Wielgosz: Optimization of an autonomous ship route based on the integrated TOPSIS method and SPOS weather routing	
11:00 - 11:20	Robert Sikora : Kongsberg Maritime innovative solutions for seaborne, offshore and marine stakeholders	
11:20 - 11:40	Coffee break (Room 4, I floor, MUS)	
11:40 - 13:00	R6_5 PhD session	
	Chair: Marcin Przywarty, Magdalena Kaup	
11:40 - 12:00	Przemysław Jabłoński , Maciej Gucma: Dynamic Risk Assessment of RO-PAX Ship Maneuvering Using Bayesian Networks and Machine Learning	
12:00 - 12:20	Michalina Gucma : Rest-hour non-compliance and safety reporting among seafarers: Evidence from a cross-sectional survey	
12:20 - 12:40	Maciej Baszak , Wojciech Ślącza, Ewelina Złoczowska, Tadeusz Chwalczuk: Multi-criteria assessment of LNG/FSRU terminal locations based on a reference profile of existing terminals	
12:40 - 13:00	Magdalena Kaup, Katarzyna Gawdzińska, Katarzyna Bryll, Karolina Baszak , Dorota Czarnecka-Komorowska, Michał Rogala: Manufacturing of composite polyurethane coatings for navigational buoys	
13:00 - 13:15	Closing of MTE 2026 Conference & awards ceremony	
13:15 - 14:00	Farewell Lunch (Room 4, I floor, MUS)	