

GLOBAL MARITIME CONGRESS

TRANSFORMATION IN MARITIME INDUSTRY

September, 28-29, 2026

Bahçeşehir University Postgraduate Continuing Education Center
Atatürk - İzmir / Türkiye



GMC Scientific Program

28 SEPTEMBER

09:00

-

Registration

09:30

OPENING SESSION - HALL A

09:30

-

Prof. Dr. Şermin Açık Çınar - *Dean of Maritime Faculty, Dokuz Eylül University*
Yunus Emre Aşkın - *Chairman, UCTEA The Chamber of Marine Engineers*

09:50

Prof. Dr. Osman Turan - *University of Strathclyde*
Prof. Dr. Bayram Yılmaz - *Rector, Dokuz Eylül University*

09:50

-

Prof. Dr. Dominic Hudson - *University of Southampton*
Prof. Dr. Lucjan Gućma - *The Maritime University of Szczecin*
Dr. Stavros Karamperidis - *Hellenic University of Greece*

10:50

☕ COFFEE BREAK (10:50 - 11:10)

Gold Sponsors' Presentations

11:10

-

Esenyel & Partners Presentation
Transbosphor Maritime Presentation

11:20

Panel Discussion: *Transition in Maritime*
Moderator: Prof. Dr. Oral Erdoğan - *TÜRK LOYDU*
Faruk Doğan - *Port Operators Association of Türkiye (TÜRK LİM)*
Cihan Ergenç - *THE TURKISH SHIPOWNERS ASSOC.*
Mehtap Özdemir - *Turkish Shipbuilders' Association (GİSBİR)*

11:30

-

12:20

Certificate of Appreciation Presentation to Congress Sponsors

12:20

LUNCH BREAK (12:30 - 13:30)

Sustainability and Safety in Decarbonization Process - HALL A

Session Chair: Assoc. Prof. Elif Bal Beşikçi

13:30

-

Sustainability from a German Shipowner's Perspective
Jan Kohzer - *Oldendorff Carriers*

Maritime Net-Zero Goals and Safety Challenges for International Shipping (187)

Authors: Osman Turan, G. Theotokatos, Rafet Kurt, S. Gunbeyaz, C. Koksai, Y. Faraq, S. Oksuz, Eka Ardhi, M. Atlar, Seref Aksu

14:30

Workshop & Questions **

☕ COFFEE BREAK (14:30-14:50)

HALL A

AI, Autonomy & Smart Maritime Systems

Session Chair: Assoc. Prof. Dr. Ali Doğrul

- 14:50 43: Comparative evaluation of LSTM and GRU networks for predicting vessel berthing approach trajectories using AIS data: a case study of Hopa Port
Authors: Ergün Elvan Bilisel, Mehmet Kaptan, Ozan Bayazit, Özgür Dal, İbrahim Kök
- 15:05 52: Towards full autonomy: Ranking IMO MASS levels using an integrated MCDM approach
Authors: Mehmet Ali Vahdet Yılmaz, Remzi Fişkın
- 15:20 105: Quantitative Navigational Risk Assessment Framework for Offshore Wind Farm Development in the Polish Exclusive Economic Zone
Author: Lucjan Gućma
- 15:35 138: Environmental and Economic Analyses of Photovoltaic System Implementation for Green Port Applications
Authors: Olgun Konur, Emir Akar, Canberk Önen
- 15:50 161: Mapping Research Trends on Autonomous Ships: A Bibliometric and Systematic Literature Review
Authors: Barış Hazar, Sadet Hazar, Muge Buber
- 16:05 191: A human-centered artificial intelligence framework for satellite-derived bathymetry and S-100 digital nautical chart production
Author: Hasan Bora Usluer

HALL B

Naval Architecture, Hydrodynamics & Advanced Ship Design

Session Chair: Prof. Dr. Mehmet Atlar

- 14:50 27: Mapping Design-Dependent Defect Formation in RIB Manufacturing: Advancing Knowledge-Based Transformation in Maritime SMEs
Authors: Burçin Aşıcı, Emre Ergül
- 15:05 61: Flexural Performance of CFRP Reinforced Modified Sinusoidal Corrugated Sandwich Panels for Marine Applications
Author: Serdar Kaveloğlu
- 15:20 70: Full-Scale Resistance Prediction of a Bulk Carrier Using URANS-Based CFD: A Case Study on JoRes 5 with and without Pre-Swirl Stator
Authors: Onur Aydın, Ali Doğrul, Naz Yılmaz
- 15:35 78: Turkish Ice-Class Research Vessel Model for Polar Expeditions
Authors: Sinan Yirmibeşoğlu, Ayşe Bilge Akgün, Bilge Tutak
- 15:50 55: The effects of wind speed gradient on the design of rigid wind sail
Author: Cem Güzelbulut
- 16:05 103: Next-generation bulk carriers: a gate-rudder enabled design methodology
Authors: Liam Patrick Nugent, Mehmet Atlar, Cagatay Sabri Koksai, Osman Turan

☕ COFFEE BREAK (16:20-16:40)

HALL A

Maritime Safety & Human Reliability

Session Chair: Prof. Dr. Osman Turan

- 16:40 51: Interpreting Port State Control Findings as Sustainability Constraints: An HFACS-Based Diagnostic Model
Authors: Mehmet Ali Vahdet Yılmaz, Ersan Başar
- 16:55 92: A Technical Assessment of Port Fire Safety: Regulatory Compliance, Root Causes, and Training Requirements
Authors: Burak Göksu, Tolga Ayıcı, Ömer Arslan
- 17:10 99: Determining the Probabilities of Ship Detentions in Port State Control Inspections: The Case of the Mediterranean MoU
Authors: Sinan Gezici, Gökhan Kara
- 17:25 137: Interpreting human error in maritime accidents: a holistic analysis of the Dirty Dozen and HFACS using SHAP
Authors: Havva Gizem Turhanlar, Leyla Tavacıoğlu
- 17:40 164: Statistical analysis of categorical associations in LNG and LPG tanker accidents
Authors: Burak Kundakçı, Coşkan Sevgili, Yusuf Zorba
- 17:55 188: Integrating SOHRA-based human reliability analysis with bridge simulator data for safer and greener ship manoeuvring: a case study at Haydarpaşa port
Authors: Alper Seyhan, Cenk Ay, Yunus Emre Şenol

HALL B

Alternative Fuels, Life-Cycle Assessment & Operational Efficiency

Session Chair: Prof. Dr. Dominic Hudson

- 16:40 24: Analysis of Barriers to Achieving Energy Efficiency Operational Indicator (EEOI) Targets via the Delphi Method
Author: Serpil Cemre Kılınç, Özgür Tezcan
- 16:55 33: FuelEU Penalty Projections: Evaluating Alternative and Conventional Fuels, considering the Well-to-Tank Emissions for the Oil Tanker
Authors: Murat Bayraktar, Onur Yüksel
- 17:10 112: The Utilization of Trim on Ballast Legs: A Low Cost Option for Emission Reduction
Authors: Louis Hockings-cooke, Osman Turan, Mehmet Atlar, Cagatay Koksai, Furkan Tarnacı
- 17:25 121: Life cycle assessment of 5 GT Indonesian fishing vessels: Comparing hull materials and propulsion systems for circular economy potential
Authors: Osman Turan, Danu Utama, Sefer Anil Gunbeyaz
- 17:40 127: Navigating the green transition: a conceptual SWOT analysis of alternative fuels in tugboats from an operational perspective
Author: Mustafa Sökükcü
- 17:55 75: Comprehensive assessment of greenhouse gas emissions and alternative fuel pathways for ships passing in the Panama Canal
Authors: Onur Yüksel, Gabriel Fuentes, Torstein Takvam, Eduardo Blanco-davis, Nikolaos Tsoulakos

20:00

GALA DINNER

İzmir Chamber of Commerce – Terrace 1885 Restaurant

GLOBAL MARITIME CONGRESS

TRANSFORMATION IN MARITIME INDUSTRY

September, 28-29, 2026

Sakarya Etiler University Rectangular Continuing Education Center
Ataşehir - İstanbul / Türkiye



GMC Scientific Program

29 SEPTEMBER

HALL A

Maritime Education, Training & Future Competencies

Session Chair: Prof Dr. Yusuf Zorba

- 09:20 23: Learning supply chain dynamics in maritime education: the impact of beer game simulation on understanding the bullwhip effect
Author: Nergis Özispä
- 09:35 25: Integrating interior architectural education and professional practice as a strategic link for future training outcomes in maritime education
Author: Markus Wilsing
- 09:50 89: Polar Code Training
Author: Rajko Zupan
- 10:05 104: Cognitive load and situational awareness in MASS level 2 and level 3 operations: Towards a simulator-based training framework for maritime education and training
Authors: Arife Tuğsan İşgüç Çolak, Zouhaier Slimi, Hamid Reza Saltani
- 10:20 119: Future Competencies for Maritime Professionals in the Era of Digitalization and Autonomous Shipping: A Fuzzy Analytic Hierarchy Process (F-AHP) Approach
Authors: Muge Buber, Xinjian Wang, Huanxin Wang
- 10:35 107: Assessment of Sustainability Integration in Maritime Education Curricula in Türkiye
Authors: Buğra Arda Zincir, Özcan Durukan, Yusuf Genç, Murat Yapıcı, Hasan Bora Usluer

HALL B

Port & Terminal Operations and Maritime Tourism

Session Chair: Doc. Dr. Umur Bucak

- 09:20 57: Analysis of the Effect of Cargo Handling Equipment Damage on Demurrage Costs with RCA Method: A Case Study of Shipping in Indonesia
Author: Zulfaidah Ariany
- 09:35 139: Green transformation of Aegean marinas: A sustainability-based evaluation of marina management practices in Türkiye
Author: Duygu Yıldırım Pekşen
- 09:50 133: Data-Driven Assessment of Port Performance and Anchorage Congestion in Dry-Bulk Terminals
Authors: Saif Alshehhi, Osman Turan, Sefer A. Günbeyaz
- 10:05 163: A Comprehensive Descriptive Analysis of the Global Superyacht Charter Market
Authors: Muammer Nurdahan, Serim Paker
- 10:20 123: Simulation-Based Assessment of a Smart Sustainable Container Floating Terminal (SSCFT) for Future Port Operations
Authors: Nur Amalia Azmi, Sefer Anil Gunbeyaz, Osman Turan
- 10:35

COFFEE BREAK (10:50-11:10)

HALL A

SHORT ORAL PRESENTATIONS

Session Chair: Assist. Prof. Dr. Egemen Ertürk

- 11:10 45: Developing a Maritime Industry Confidence Index: A Composite Indicator Approach
Authors: Aslı Duman, Mehmet Fatih Acar
- 11:15 58: Strategic alliances in global container shipping: effects on port operations and competition
Authors: Cemil Yiğit Karaca, Mert Hazar, Umur Bucak
- 11:20 150: Speculative Freight Bubbles: The Impact of Geopolitical Risks on the Tanker Market
Authors: İlhan Mert Yolcu, Abdullah Açıık
- 11:25 153: Political Communication and Tanker Freight Markets: Threshold Effects of the Trump Maritime Risk Index (TMRI)
Authors: Abdullah Açıık, Ramazan Özkan Yıldız
- 11:30 166: The Impact of Geopolitical Crises on Maritime Markets: A Comparative Case Analysis of The Post-COVID-19 Era
Authors: Fatih Ercan, Rabia Yenilmez
- 11:35 100: Supply Disruptions and Tanker Freight Rate Responses: Evidence from the Strait of Hormuz Closure Event
Authors: Mert Abay, Gamze Arabelen, Sadık Özlen Başer, Demir Ali Akyar, Ömür Yaşar Saatçioğlu
- 11:40 151: The Impact of U.S.-Iran Geopolitical Tensions on Container Shipping Operations: A Sector Analysis of Shipowners and Freight Forwarders
Authors: Kübra Toklu, Abdullah Açıık
- 11:45 117: Sustainability Disclosure and Financial Performance in Turkish Logistics Sector: Evidence from the Borsa İstanbul Transportation Index
Authors: Uğur Akan, Seçil Sigalı
- 11:50 122: LinkedIn Usage in Port Industry: An Analysis of Selected Ports in İzmir
Authors: Zeynep Candan, Giray Yiğit Kolcubaşı
- 11:55 126: Sustainable Recycled Hemp Fiber/Nanosilica Hybrid Nanocomposites for Low-Carbon Maritime Applications
Authors: Melisa Atay, Metin Yurdaskal
- 12:00 128: A SWOT analysis of strategies to mitigate the adverse effects of climate-induced sea-level rise
Authors: Aykar Tekin, Nurser Gökdemir Işık
- 12:05 195: Beyond Technology Implementation: A Governance Framework for Digital Transformation in Container Terminals
Authors: Umut Çelen Arıcan, Murat Yorulmaz
- 12:10 175: Packaging under Pressure: Developing Solutions in Supply Chains
Authors: Tunca Tabaklar, Çansu Yıldırım
- 12:15 174: The Transition Premium vs. Demand Destruction: The Dual Impact of Renewable Energy on Tanker Freight Rates
Author: Reha Memişoğlu

HALL B

SHORT ORAL PRESENTATIONS

Session Chair: Assoc. Prof. Dr. Barış Kuleyin

- 11:10 83: Multi-Criteria Assessment of Alternative Fuels for Ships
Authors: Bağcan Çatı, Remzi Fişkın, Mehmet Ali Vahdet Yılmaz
- 11:15 110: Convective precipitation risk and wave analysis estimation for the maritime area between Türkiye and Cyprus
Authors: Mustafa Altunç, Gökhan Kara
- 11:20 97: Geometric Characterization of Traditional Black Sea Fishing Boat Forms and Hydrodynamic Performance Analysis Using Empirical Methods
Authors: Burak Göksu, Can Atalay, Serdar Mete, Ersin Açıkgöz
- 11:25 156: Feasibility of ELISA-Based Salivary Biomarker Analysis in Bridge Simulator Training Environments
Authors: Ahmet Demiray, Oğuz Atik
- 11:30 157: Theory of navigational state in maritime decision-making
Authors: Yunus Emre Nazlıgöl, Devran Yazır, Hürol Hıcek
- 11:35 98: Cultural Codes and Organizational Conflict Resolution Methods of Seafarers (Shipboard and Shore-based) in The Maritime Sector
Authors: Hasan Selman Çulha, Leyla Tavacıoğlu
- 11:40 167: Workplace sexual violence among seafarers: an occupational health perspective
Authors: Gamze Ağartıoğlu Kundakçı, Elif Arslan, Burak Kundakçı, Coşkan Sevgili
- 11:45 168: AI-Supported Analysis of Fire and Explosion Type Maritime Accidents Using the Human Factors Analysis and Classification System for Maritime Accidents Methodology
Authors: Yalçın Delioğlu, Seymen Aşk, Nisa Bayram, Elif Arslan
- 11:50 170: Assessing Oral Health and Psychosocial Risk Profiles of Maritime Cadets Through Systematic Literature Review and Pre-Internship Survey Data
Authors: Muge Buber, Ayça Muhterem, Eylül Atan, Selda Yılmaz, Seyda Şılan Okalın Yamac, Nazlı Arslan, Elif Inonu, Gamze Tuna, Aliye Akcalı, Sermin Acik Cinar
- 11:55 173: Impacts of Protectionism-Driven Restructuring in Global Trade on Maritime Transport
Authors: Rabia Yenilmez, Fatih Ercan, Sinan Geziçi
- 12:00 140: Trends in Maritime Resilience: A Content Analysis
Authors: Ayyüce Yurt, Cenk Şakar
- 12:05 182: Labor Rights, Legal Status, and Working Conditions of Maritime Pilots
Authors: Serkan Kahraman, Yusuf Zorba
- 12:10 179: Perceived social loafing and turnover intention among junior maritime officers: A cross-sectional analysis
Authors: Uğur Catal, Yusuf Zorba
- 12:15 134: Hybrid cooling system for shipboard electronic cabinets exposed to bidirectional thermal loads
Author: Erdem Fikir

LUNCH BREAK (12:30 - 13:30)

GMC Scientific Program

29 SEPTEMBER

HALL A

Ship Energy Systems, Clean Propulsion & Emissions Control Session Chair: Assoc. Prof.Dr. Emrah Erginer

- 113: Power Factor Standards in Shipboard Microgrids: Implications for Energy Efficiency
13:30 Authors: Kubilay Bayramoğlu, Tolga Bayramoğlu, Erdem Fikir, Mustafa Nuran, Kerim Deniz Kaya, Semih Yılmaz
- 114: Thermodynamic and exergetic analysis of a main-engine-driven concurrent inerting system for ammonia-fueled MR tankers
13:45 Authors: Yusuf Tekel, Devran Yazır, Hürol Hocek, Cemalettin Aygün
- 136: Investigation of Lean Combustion Performance and Emission Characteristics of a Diesel Engine Fueled with Ammonia and Hydrogen Peroxide
14:00 Authors: Aykut Safa, Sercan Ayvaz
- 144: Investigation of critical dew point temperatures for different fuels and excess air ratios: implications for aftertreatment systems and waste heat recovery on maritime applications
14:15 Authors: Kubilay Bayramoğlu, Tolga Bayramoğlu, Erdem Fikir, Semih Yılmaz, Kerim Deniz Kaya, Mustafa Nuran
- 115: Thermodynamic assessment of a hybrid cascade waste heat recovery system for inert gas generator scrubbers: a case study of an MR tanker
14:30 Authors: Yusuf Tekel, Cemalettin Aygün, Hürol Hocek, Devran Yazır
- 14:45

HALL B

Marine Engineering, Reliability & Digital Maintenance Session Chair: Prof. Dr. Alper Kılıç

- 90: Critical load-shedding threshold for frequency stability after generator loss in a shipboard power system
13:30 Author: Rabia Yenilmez
- 94: Numerical Investigation of Pressure Loss and Pumping Power in Shipboard Piping Systems with Different Pipe Geometries
13:45 Authors: Galip Durukan, Altuğ Muslu, Ali Doğrul
- 108: Analysis of Ballast Water Treatment System (BWTS) Failure Statistics in Terms of Technical Management
14:00 Authors: Özlem Şenvar, Murat Yapıcı
- 132: Artificial Intelligence-Based Predictive Maintenance Framework for Smart Aids-to-Navigation Buoys
14:15 Authors: Kadir Emrah Erginer, Karahan Karakurt
- 143: Development Of Continuous Crank Angle Resolved Digital Twin Of A Turbocharger For A Medium-Speed Four-Stroke Marine Diesel Engine
14:30 Authors: Mehmet Sinan Coşkun, İsmail Çiçek, Oğuz Salim Söğüt
- 159: Evaluating the impact of operational and technical enhancements on ship CII ratings and associated costs
14:45 Authors: İsmet Efe Ürün, Süleyman Bal, Murat Pamik, Olgun Konur

☕ COFFEE BREAK (15:00-15:15)

HALL A

Seafarer Wellbeing, Human Roles & Organizational Climate Session Chair: Assist. Prof.Dr. Serim Paker

- 26: A Post-Human Paradigm or Paradox: A Change of Masters, Commanders and Servants in Maritime Design and Operations
15:15 Author: Ahmet Can Özcan
- 29: Assessing MLC 2006 Implementation Gaps: A Systematic Literature Review on Seafarer Wellbeing under Crises and Operational Hazards
15:30 Authors: Eda Kefeli, Ali Cem Kuzu
- 68: Ethical leadership, psychological safety, and acquiescent silence in port operations
15:45 Authors: Özgür Sert, İbrahim Sani Mert
- 186: Digital fatigue and physical fitness: the relationship of physical activity, relative handgrip strength and body mass index with digital fatigue in seafarer candidates
16:00 Authors: Kuzey Boston, Birgül Arslanoğlu
- 193: From Static Tool to Integrated Framework: A Systematic Literature Review of SWOT Analysis in Maritime Business
16:15 Author: Hatice Akpınar

HALL B

Maritime Trade, Geopolitics & Security Session Chair: Prof.Dr. Ömür Yaşar Saatçioğlu

- 124: Impacts of the Strait of Hormuz Crisis on Global Maritime Transport and the Turkish Maritime Sector
15:15 Author: N. Hakan Pekşen
- 152: Comparative Cyclical Responses of Tanker and Dry Bulk Freight Markets to Strait of Hormuz Tensions: Evidence from HP-Filtered BDTI and BDI Series
15:30 Authors: Abdullah Açık, Ramazan Özkan Yıldız
- 96: Maritime Security as a Determinant of Energy Security: The Strait of Hormuz under US-Israel-Iran Conflict
15:45 Authors: Ferhan Oral, Deniz Güler
- 130: Determining Cyber Risk Appetit Levels in Maritime Organization: Evidence From Ship Management And Port Operation
16:00 Authors: Selen Uygun, Gizem Kayisoglu, Fırat Bolat, Pelin Bolat
- 141: Seismic Exploration Activities as a Marine Scientific Research Activity: Legal Assessment in Disputed Maritime Jurisdiction Areas - Türkiye-Libya Case
16:15 Authors: Batu Can Alpar, İrşad Bayırhan, Cem Gazioglu

☕ COFFEE BREAK (16:30-16:40)

HALL A

Maritime Decarbonization: Policy, Regulation & Environmental Transition Session Chair: Assist. Prof.Dr. Olgun Konur

- 101: Assessment of the Impacts of Climate Change on Wind, Wave and Sea Level Variations in the Trabzon Coastal Region
16:40 Authors: Berkay Gundogdu, Asu Inan
- 145: Toward a port decarbonization readiness framework: a literature-based assessment of low-carbon transition requirements
16:55 Author: İpek Akman Durgut
- 158: Evaluation of maritime decarbonization barriers through a fuzzy CRITIC approach
17:10 Authors: Melisa Ozbiltekin-pala, Yigit Kazancoglu, Stravros Karamperidis
- 171: Technical Requirements, Implementation Challenges, and Socio-Economic Benefits of Cold Ironing Integration in Maritime Transport for Maritime Decarbonization
17:25 Authors: Mehmet Cihan, Cemile Solak-fışkın
- 181: A Study on the Impacts of EU Emissions Trading System (ETS) and MRV Integration on Maritime Transport in Global Carbon Management
17:40 Authors: Murat Yapıcı, Birsen Koldemir
- 194: Development of a national ship emission data collection, verification and reporting platform for IMO DCS, EU MRV and CII compliance
17:55 Authors: Ramazan Şener, Samet Memiş, Alper Kılıç

HALL B

Sustainable Ports, Transport Integration & Smart Maritime Systems Session Chair: Assist. Prof. Dr. Nergis Ozispa

- 95: Optimization of tugboat allocation in port manoeuvres: a multiparameter framework approach
16:40 Authors: Altanur Güleş, İrşad Bayırhan, Cem Gazioglu
- 116: An Integrated KPI Framework for Evaluating Smart Port Performance
16:55 Authors: Melisa Ozbiltekin-pala, Betül Parlak
- 148: Mapping blockchain for digital marketing in maritime logistics: a value co-creation perspective
17:10 Authors: Duygu Peyman, Gül Denктаş Şakar
- 120: The impact of port-rail integration on cost and carbon performance of container hinterland transport in Türkiye
17:25 Author: Çağlar Aktepe
- 46: Evaluating Social Sustainability Determinants in Turkish Ports: A Fuzzy DEMATEL Approach
17:40 Authors: Burcu Özselek, İlke Sezin Ayaz
- 17:55