



INT-NAM 2023

4th International Symposium on Naval Architecture and Maritime

11-13 October 2023, Yıldız Technical University Auditorium, Yıldız, Besiktas, Istanbul

PROGRAM

Wednesday, October 11th, 2023			DAY 1
09:00 – 09:50	REGISTRATION		
AUDITORIUM HALL (U)	OPENING SPEECHES		
	09:50 – 10:25	Prof. Ahmet Dursun ALKAN <i>Symposium Chair</i>	
	SESSION_1: KEYNOTE PAPERS		
	10:30 – 11:00	Towards Green and Intelligent Technology in the Shipping Industry Prof. Carlos GUEDES SOARES CENTEC, University of Lisbon, Portugal	
	11:05 – 11:35	Alternative Methods of Maritime Transport of Natural Gas in the Mediterranean Sea Prof. Giorgio TRINCAS University of Trieste, Italy	
	11:40 – 11:55	COFFEE BREAK	
	11:55 – 12:25	Design of a Full-Scale Wave Energy Converter: Challenges and Technological Solutions Prof. Muhammad HAJJ Stevens Institute of Technology, USA	
	12:30 – 13:00	Global Marine Technology Trends, Drivers and Challenges Prof. Atilla INCECIK University of Strathclyde, Glasgow, UK	
	13:05 – 14:00	LUNCH BREAK	
	SESSION_2: KEYNOTE PAPER		
AUDITORIUM HALL (U)	14:00 – 14:30	The Kobold Turbine - The First Full-Scale Plant for the Exploitation of Marine Currents Ing. Alberto MOROSO, ATENA, Italy	
	Chair R. Datla – A.D.A. Alkan	SESSION_3: SUSTAINABLE INNOVATIONS & NATURE-BASED SOLUTIONS	
	14:30 – 14:50	Additive Manufacturing (3D Printing) for the Sustainable Future of the Maritime Industry: Real-World Applications and Case Studies Sirin, Tolga Berkay; Bayer, Muhammed Umar; Tur, Erkan	
	14:50 – 15:10	An Innovative Ocean Cleanup Hullform Datla, Raju; Yildiz, Burak	
	15:10 – 15:30	Dark Side of Microplastics on Marine Environment and Sustainability: A Review of Accumulation and Fragmentation of Microplastic and Its Effect on Global Marine Environment and Industry Osmar, Büşra; Akin Evingür, Gülşen	
	15:30 – 15:50	Sustainability-driven analysis of trends in the global market of high speed marine craft Gülcemal, Ömer Faruk; Korkmaz, Berna; Gürsel, K. Turgut; Kaplanoğlu, Murat; Neşer, Gökdeniz	
	15:50 – 16:10	Improving the Performance of the Ship Propellers with Sustainable Materials and Manufacturing Altunsaray, Erkin; Sözen, Ayberk; Doğru, Alperen; Halilbeşe, Akile Neşe; Türkmen, Serkan; Neşer, Gökdeniz	
	16:10 – 16:30	Routes for Systemic Resilience in Yacht Building Industry: Life Cycle Assessment for Sustainability Gurlier Akdeniz, Ahu	
	Concurrent Sessions		
	Chair D.B. Danişman	SESSION_4: GREEN TECHNOLOGIES	
EXHIBITION HALL (L)	14:30 – 14:50	Comparative study of methanol-fuelled ICE and solid oxide fuel cell power systems on board ships Mocerino, Luigia; Coppola, Tommaso; Micoli, Luca; Quaranta, Franco; Russo, Roberta	
	14:50 – 15:10	The Potential of Cold Plasma Technology in Ballast Water Treatment Pour Rahmati Khalejan, Seyed Hamed	
	15:10 – 15:30	An investigation about green ports in Bodrum Ergin, Selma; Ertugrul, Mustafa; Mocerino, Luigia; Micoli, Luca; Quaranta, Franco	
	15:30 – 15:50	A retrofit application to the skeg-hull interface to reduce carbon emissions Danişman, Devrim B.	
	15:50 – 16:05	Greening the Seas for a Bright Future: A Review Study on Alternative Fuels & Energy Efficiency in Maritime Industry Citakoglu, Furkan; Alkan, Ahmet Dursun	
	16:05 – 16:35	COFFEE BREAK	
AUDITORIUM HALL (U)	SESSION_5: KEYNOTE PAPER (Online)		
	16:35 – 17:05	Perfection is the enemy of evolution Prof. Adrian BEJAN, Duke University, USA	
	Chair C.B. Güney	SESSION_6: GREEN TECHNOLOGIES	
	17:05 – 17:25	Ballast Sediment Problem and Solution Approaches Bilgin Güney, Ceren	
	17:25 – 17:45	Alternative energy approach in green port applications: Solar panel application for energy supply Uyanık, Tayfun; Arslanoğlu, Yasin	
	17:45 – 18:05	A short review on the electrification of marine vessels Hanci, Ahmet; Alkan, Ahmet Dursun	
	Concurrent Sessions		
	Chair I. Bayezit, O.K. Kinaci	SESSION_7: UNDERWATER TECHNOLOGY AND ACOUSTICS	
EXHIBITION HALL (L)	16:30 – 16:45	Root Vortex Reduction Around a DARPA Suboff Submarine Sail Kayacan, Burcu	
	16:45 – 17:00	Acoustic Ventilation Metamaterial for Simultaneous Noise Reduction and Air Circulation Baydur, Caner; Bayraktar, Meral; Huang, Sibö; Wang, Xu; Bagci, Fulya; Bayraktar, Seyfettin	
	17:00 – 17:15	Simulation of Captive Model Experiments of an Underwater Vehicle by CFD Based on a Single Grid Structure Kirikbaş, Oğuzhan; Bal, Sakir	
	17:15 – 17:30	Field Testing and Evaluation of a Novel Conductivity-Temperature-Depth Probe Alper, Kaan; Dulger, Mutlu; Inan, Kagan; Bayezit, Ismail; Kinaci, Omer Kemal; Kalip, Nil Girgin; Özyurt, Selçuk; Kucukerman, Enver; Ercument, Alparslan Bahadır; Aydin, Bulent	
	17:30 – 17:45	The Role of Rubber Coatings in Underwater Acoustic Metamaterial Baydur, Caner; Bayraktar, Meral; Huang, Sibö; Wang, Xu	
	17:45 – 18:00	Introduction and Concept Design of "AUVTECH" Autonomous Underwater Vehicle Yilmaztürk, Oğulcan; Bal, Selman; Türköz, Baha; Cebeci, Özgür; Çelik, Nuh Talha; Özden, Abdurrahman; Arpacı, Ugur; Gündoğdu, Hamza; Bayraktar, Reyhan; Doğan, Kübra; Avan, İlayga; Avci, Ahmet Gülrtekin; Alkan, Ahmet Dursun	



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Thursday, October 12th, 2023		DAY 2
AUDITORIUM HALL (U)	SESSION_8: KEYNOTE PAPERS	
	09:10-09:40	H2020 GATERS Project - The Uncompromising Energy Efficiency Solution for Ships and Marine Environment Prof. Mehmet ATLAR University of Strathclyde, Glasgow, UK
	09:40 - 10:10	H2020 GATERS Project - How We can Explain 35-55% Energy Saving Obtained from the Target Ship ERGE Prof. Noriyuki SASAKI University of Strathclyde, Glasgow, UK
	10:10 - 10:40	The use of differential evolution algorithms to determine ship roll damping coefficients from decay tests Prof. Radoslav NABERGOJ NADSI PDS, Izola, Slovenia
	10:40 - 10:50	COFFEE BREAK
	Chair N. Sasaki	SESSION_9: MARITIME HUMAN FACTORS
	10:50 - 11:10	Teaching Marine Environmental Terms in compliance with MARPOL Convention through On-line Methods Smirnov, Igor O; Dokuto, Bozhena; Kurshakova, Tatyana
	11:10 - 11:30	"Force Majeure", Extension of Time Clauses and the Prevention Principle in Shipbuilding Contracts Tasic, Zoran
	11:30 - 11:50	Reflections of Autonomous Systems on the Labour Force of the Maritime Industry: An Explanatory Study Aktepe, Çağlar; Ayaz, İlke Sezin; Bayırhan, İrşad; Bucak, Umur
	11:50 - 12:10	The Effects of the Ship Rolling on the Ship's Crew Sokukcu, Mustafa; Yuksel, Onur; Bayraktar, Murat
	12:10 - 12:30	Environmental, Social and Governance in the Shipping Industry: From the Perspective of EU and Turkey Tomur, Huriye Dilbeste
Concurrent Sessions		
EXHIBITION HALL (L)	Chair R. Nabergoj, F. Cakici	SESSION_10: SHIP STABILITY, SEAKEEPING AND CONTROL
	10:50 - 11:10	Effects of the Bilge Keel Shape on Roll Damping Çopuroğlu, Hasan İslam; Pesman, Emre ; Katayama, Toru
	11:10 - 11:30	Effect of Damping on Roll Motion of Ships Taylan, Metin; Pinar, İbrahim
	11:30 - 11:50	Roll damping system on ships: Fin stabilizer Uysal, Ömer Faruk; Cankurt, Tolga
	11:50 - 12:10	Model Based Navigation and Control of a Tankship in Narrow Waterways Ozcan, Abdurrahim Bilal; Bayezit, İsmail; Kinaci, Omer Kemal
	12:10 - 12:30	Numerical Simulation of Wave Forces Acting on Large Cylinders Tunçay, Rabia Yağmur; Bayraktar Bural, Deniz
	12:30 - 12:50	Investigation of Dead Ship Condition for a Naval Ship within the Framework of 2nd Generation Stability Criteria Doganci, Ali; Cakici Ferdi
LUNCH BREAK		
AUDITORIUM (U)	Chair G. Trincas	SESSION_9 (cont.) : MARITIME HUMAN FACTORS
	13:55 - 14:15	The Specificity of Information Integration and Information Display in the Man-Machine System Popov, Anatoliy; Zelenkov, Gennadiy; Kondratiev, Alexey; Smirnov, Igor
	14:15 - 14:35	Contribution of human error to ship machinery failure: Mapping fault tree analysis into Bayesian network Jovanović, Ivana; Vladimir, Nikola; Percic, Maja
	14:35 - 14:55	Wrong Use of the Standard Marine Communication Phrases Farjami, Fahimeh
COFFEE BREAK		
AUDITORIUM (U)	Chair N. Sasaki	SESSION_11: DATA AND ARTIFICIAL INTELLIGENCE
	15:10 - 15:30	On the Turning Circle Performance of a Car Carrier using SI method Atasayan, Ellis; Milanov, Evgeni; Alkan, Ahmet Dursun
	15:30 - 15:50	Innovative Solutions for Aquaculture: Analysis of AI and Mobile App Advancements for Early Warning and Optimization of Production Processes Bujas, Tena; Vladimir, Nikola; Korićan, Marija; Soldo, Vladimir; Čatipović, Ivan; Tonković, Zdenko; Omanović, Dario
	15:50 - 16:05	Digitalization in Maritime Technologies Mert, Süleyman
	16:05 - 16:25	Data-Based Sustainable Maritime Developments Gunes, Umit
COFFEE BREAK		
AUDITORIUM (U)	Chair U. Gunes	SESSION_12: MARITIME GENERAL (Online)
	16:45 - 17:05	Indices for the degree of concentration of NAPA ports in the container market Hess, Svjetlana; Hess, Mirano
	17:05 - 17:25	Ensuring Environmental Sustainability in the Context of Innovation through High-Quality Training of Seafarers Using VR Technologies Yurzenko, Alona; Voloshynov, Serhii; Danyk, Vadym
	17:25 - 17:45	Drag Reduction of Bluff Bodies by Passive Canals: A Numerical and Experimental Study Taşdemir, Ahmet; Akman, Mehmet
	17:45 - 18:05	Energy-Efficient Inland Ship Design Based on EEDIBD Parameters Using CFD Hasan, S M Rashidul; Karim, M M
Concurrent Sessions		
EXHIBITION HALL (L)	Chair S. Calisal, Y. Palaci	SESSION_13: ENERGY EFFICIENCY
	13:55 - 14:15	A brief history of the Flettner ship, an archetype of sustainable marine propulsion design Corradi, Massimo; Tacchella, Claudia
	14:15 - 14:35	A Decision-Making Process for Selection of Better Ship Main Dimensions with the EEDI Requirement Including Added Resistance in Waves Calisal, Sander M; Yurdakul, Onur; Kucuksu, Gozde; Saydam, Ziya
	14:35 - 14:55	Addressing the Crucial Points of Main Engine Lubricating Oil System for Achieving of Condition-Based Maintenance Strategy Karatuğlu, Çağlar; Arslanoğlu, Yasin
	14:55 - 15:15	Boehmitic Alumina Dip Coated Ni-Al Bronze Ship Propellers Ranjbar Moule, Mahdi; Palaci, Yüksel ; Yilmaz, Suat
	15:15 - 15:35	Thermal and economical analysis of thermoelectric generator for the waste heat recovery from a marine diesel engine aboard a ferry Böbür, Furkan; Ergin, Selma
	15:35 - 15:55	Exergoeconomic Analysis of Marine Diesel Engine Waste Heat Recovery Koroglu, Turgay; Savaş, Arif
COFFEE BREAK		
EXHIBITION H.	16:15 - 16:35	The Role of Autonomous Ships for Improving Energy Efficiency in Container Shipping Kurt, İsmail
	16:35 - 16:55	The estimation of ship performance with self-propulsion factors by the load variation method Kuroda, Mariko; Fukasawa, Ryohel; Hamada, Tatsuya
	16:55 - 17:15	Evaluation of Technical Offshore Wind Energy Capacity at Five Locations in Türkiye Kükner, Abdi; Amer, Adnan
	17:15 - 17:35	Developments of IBC Code 2020 Edition and Marpol Annex 2 Amendments in force from 1st January of 2021 Ocakli, Doruk; Turan, Eda
	17:35 - 17:55	Analyses of an ideal combined heat-powered marine refrigeration system Yilmazturk, Ogulcan; Karakurt, Asim Sinan



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PROGRAM

Friday, October 13th, 2023

DAY 3

AUDITORIUM (U)	Chair Özden Y.A.	SESSION_14: MARINE DESIGN AND SAFETY	
	09:10 – 09:30	An Economic Design Proposal for Air Cushion Vehicles Gürenli, Sarp	
	09:30 – 09:50	Additive Manufacturing Design of a Boat Bow Chock and Prototype Fabrication by Fused Deposition Modeling with Carbon-fiber Filament Kılıç, Altuğ; Ayaydın, Mehmet; Taşdemir, Ahmet; Hayran, Necip; Oğuz, Ali	
	09:50 – 10:10	Corrosion Behaviour of Underwater Wet-Welded Shipbuilding Steel Weld Zone Alkan, Sabri; Gülen, Mahir	
	10:10 – 10:30	Navigating Uncertainty: Robust Path Planning for Autonomous Underwater Vehicles in Turbulent Environments Abdelkhalek, Mostafa; Bayezit, İsmail	
	10:30 – 10:50	Quantifying human factor in ships operation via an AI based emotions recognition Pagani, Laura; Gemelli, Paolo; Zignego, Mario Ivan; Bertirotti, Alessandro	
	10:50 – 11:10	Intact and Damaged Stability Assessment of the BB2 Joubert Submarine Eken, Serdar; Arkan Özden, Yasemin	
	11:10 – 11:25	Using the Blockage Assessment Model (BAM) in the Weapon Integration Phase of a Warship Design Aldemir, Furkan; Sener, Bekir	
11:25 – 11:45	COFFEE BREAK		



Concurrent Sessions

EXHIBITION HALL (L)	Chair Bayraktar S.	SESSION_15: SHIP RESISTANCE	
	09:10 – 09:30	Enhancing Measurements of Added Resistance in Regular Waves Based on Uncertainty Analysis Sogihara, Naoto Sogihara; Hamada, Tatsuya; Wako, Daisuke	
	09:30 – 09:50	Experimental investigation on the effect of single and double interceptor systems on planing hull efficiency with different loading conditions De Luca, Fabio; Mancini, Simone; Pensa, Claudio; Pigazzini, Riccardo; Sorrentino, Vincenzo	
	09:50 – 10:10	Ship Resistance Reduction Methods Ulucutsoy, Aleya; Saraç, Betül; Aksu, Erhan	
	10:10 – 10:30	Computational Investigations of Flow Characteristics around Different Sail Geometries and their Effects on Resistance for DARPA Suboff Yılmaz, Naz; Dobrucalı, Erinc	
	10:10 – 10:30	COFFEE BREAK	
	10:30 – 10:50	Investigation of Hydrodynamic Performance of an Underwater Vehicle Cruising at Depths Near Free Surface Taner, Mesut; Gürsel, K. Turgut	
	11:10 – 11:25	Form Optimization of a Swimmer Delivery Vehicle (SDV) Eroğlu, Hasan; Yıldız, Aziz Kerim; Egrin, Bünyamin; Akkaya, Gökhan ; Kuzu, Mukaddes ; Bolat, Tunç ; Demir, Özgür ; Yurtseven, Ahmet	

AUDITORIUM (U)	Chair Alkan A.D.	SESSION_16: NAVIGATING SUSTAINABLE PROJECT MANAGEMENT IN THE COMPLEXITY OF MARITIME SECTOR (Online)	
	12:00 – 12:20	Navigating Complexity: Project Management in Shipbuilding Industry Acikel, Erdinc; Yenici Tolga	
	12:20 – 12:40	Navigating Complexity: Risk Management in Shipbuilding Industry Yenici, Tolga; Acikel, Erdinc	
	12:40 – 13:00	Effect of passing loaded mass through a submerged circular cylindrical pipe bridge in a two-layer fluid in front of a cliff as a vertical wall Ghosh, Minakshi; Das, Dilip	

13:00 – 13:55

LUNCH BREAK

EXHIBITION HALL (L)	Chair E. Sulukan	SESSION_17: MARINE DESIGN AND SAFETY (continues)	
	13:55 – 14:15	Investigation of Reinforced Cylindrical Composite Panels Against Air Blast Load Uğurlu, Abdulkadir; Ince, Serdat Turgut	
	14:15 – 14:35	Developing TIMES Model for an Oil Product Tanker Ship Sulkan, Egemen	
	14:35 – 14:55	Assessment of Wave Impact on Model Wave Energy Converter Korkmaz, Fatih Cüneyd; Ince, Serdat Turgut; Gedikli, Ersegün Deniz	
	14:55 – 15:15	A Research on Design and Production of HDPE Boat Structural Elements Kafalı, Mustafa	
	15:15 – 15:35	Drag Reduction of the Submarine in Fully Submerged Condition with a Fully Parametric CAD Model Osman Gargi, Osman	
	15:35 – 15:55	COFFEE BREAK	
	15:55 – 16:15	Design and Analysis of Clamp Pipe System for Floating Pool Dogan, S. Ozhan; Anık, B. Galip	
	16:15 – 16:35	Discretization Of E-Type Shell and Tube Heat Exchangers based on Axial Flows for Thermal Analysis Kaya, İbrahim; Üst, Yasin	



Concurrent Sessions

AUDITORIUM HALL (U)	Chair S.Mancini	SESSION_18: COMPUTATIONAL METHODS	
	13:55 – 14:15	Improving Verification and Validation in CFD Simulations: A Simplified Approach for Wave Profile Assessment Mancini, Simone; Niazmand Bilandi, Rasul; De Luca, Fabio	
	14:15 – 14:35	2D numerical forced-motion simulations of vortex-induced vibration wakes: Toward understanding the onset of three-dimensional effects Rajabi, Meysam; Aktosun, Erdem; Mingels, Brian; Dahl, Jason; Gedikli, Ersegün Deniz	
	14:35 – 14:55	The Simulation of Inflatable Boat Motion with CFD on Free Surface Flows Aksoy, Cemal H.C.; Kükner, Abdi	
	14:55 – 15:15	Development of Marine Propeller Design Code Using Lifting Line Theory Iftikhar, Hammad; Takinacı, Ali Can	
	15:15 – 15:35	Numerical Investigation of the Twisted Profile Effect on Hydrofoils in Cavitating Flow Oksuz, Sinem; Usta, Onur; Çelik, Fahri	
	15:15 – 15:35	Fire Safety Analysis of Electric Vehicle Spaces On board RoPax Ships with Using Fire Dynamics Simulations Aycı, Tolga; Barlas, Barış; Ölcer, Aykut I.	
	15:35 – 15:55	COFFEE BREAK	

AUDITORIUM (U)	15:55 – 16:15	Detached Eddy Simulations of Air Flow Around NATO-Generic Destroyer Sari, Sari; Dogrul, Ali; Bayraktar, Seyfettin	
	16:15 – 16:35	Numerical Investigation of the Interaction Between a Controllable-Pitch Propeller Converted From a Fixed-Pitch Propeller and Rudder at Different Pitch Angles Aydinli, Onur; Yurtseven, Ahmet	
	16:35 – 16:55	Geometrically Nonlinear Vibration Analysis of Sandwich Beams with Viscoelastic Core by the GDQM Serveren, Mert Mehmet; Demir, Ozgur; Arikoglu, Aytac	
	<div>CLOSING SESSION</div> <div></div>		



DAY 3

Important Notice to the presenters and participants:

LOCAL TIME = UTC+3

1) Please specify the full name of the presenter author and upload your presentation file ("PAPER_ID.number.PPTX" and its "PDF") into the link: <https://form.jotform.com/232722452679058> latest on 09.10.2023.

2) Please make your reservation to INT-NAM 2023 GALA DINNER, to be held on 11 October at 19:00, using the following link:

<https://forms.office.com/r/m3PnE4YnFA> latest on 09.10.2023.

AUDITORIUM (U) : The hall in the upper floor.

EXHIBITION HALL (L): The hall in the entrance floor.



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"Sustainable Innovations & Nature-Based Solutions"

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