



SVEUČILIŠTE
U DUBROVNIKU
UNIVERSITY
OF DUBROVNIK

UNIVERSITY
OF DUBROVNIK
MARITIME
DEPARTMENT

3rd International Conference of Maritime Science & Technology Our Sea 2023 Safety, Innovation, Resilience

Dubrovnik, Croatia,
14 – 16 September 2023

Organizer: Maritime Department, University of Dubrovnik

Venue: University of Dubrovnik, Branitelja
Dubrovnika 41, Dubrovnik

e-mail: www.nasemore.com/conference/
conference@nasemore.com

PROGRAMME OVERVIEW

DAY 1 14 September 2023 (Thursday)

08:00 – 09:00 Registration
09:00 – 09:30 **Welcome note and introductory remarks**
09:30 – 10:30 **Keynote speech** (Yusuke Mori, Damir Zec)
10:30 – 10:50 Coffee break
11:00 – 12:30 **Panel session I** – Education
12:30 – 13:30 Lunch break
13:30 – 14:30 **Presentations**
14:30 – 14:45 Coffee break
14:45 – 16:15 **Presentations**
17:00 Guided sightseeing tour
(meeting point – [Pile gate – Tourist board](#))

DAY 2 15 September 2023 (Friday)

09:00 – 09:30 **Keynote speech** (Syed Asif Altaf Chowdhury)
09:30 – 11:00 **Panel session II** – Business sector
11:00 – 11:20 Coffee break
11:30 – 12:45 **Presentations**
12:30 – 13:30 Lunch break
13:30 – 14:30 **Presentations**
18:30 – 20:00 Karaka boat tour*
*Meeting point: 17:30 Student dorm reception ([bus transfer](#))
18:15 [The old port of Dubrovnik](#)
20:30 Gala dinner - [Museum of Modern Art Dubrovnik](#)



CONFERENCE PROGRAMME

14 September 2023 (Thursday)

Registration 08:00 – 09:00

09:00 – 09:30 WELCOME NOTE AND INTRODUCTORY REMARKS

WELCOMING REMARKS:

Representative of the University of Dubrovnik

Students representative

Ministry of the sea, transport and infrastructure

City of Dubrovnik - Representative

Dubrovnik-Neretva County - Representative

INTRODUCTORY REMARK

Srđan Vujičić, Head of the Maritime Department

KEYNOTE

09:30 - 10:00 Yusuke Mori

10:00 – 10:30 Damir Zec

10:30 – 10:50 coffee break

11:00 – 12:30 Panel session I – Education

(Panel discussion with Q&A from the audience)

THE FUTURE OF MET

Maritime education and training must seek effective training methods to meet the needs of the shipping industry. Future skills and competencies must emerge from the trends that will shape the future. Therefore, cooperation between industry and universities should explore new approaches and new technologies. Most of the skills that will be needed in the future are outside the scope of current educational programmes. Therefore, educators need to establish appropriate programs that develop the competencies and skills of maritime professionals in response to the rapid development of



technologies, especially Artificial Intelligence. In addition, programmes should enhance seafarers' soft skills in leadership and management aimed at their careers both on board and ashore. Study programmes should also create a strong interdisciplinary environment to connect researchers and maritime professionals. In addition, study programmes should develop strategies to improve or promote awareness of mental health issues in maritime organisations for both shipboard and shore-based personnel.

Moderator: Ana Gundić, Assistant Professor, Maritime Department, University of Zadar

Panelists:

Yusuke Mori, Deputy Executive Director, International Association of Maritime Universities (IAMU)

Srđan Vujičić, Assistant Professor, Head of Maritime Department, University of Dubrovnik

Ana Perić Hadžić, Full Professor, Dean of the Faculty of Maritime studies of the University of Rijeka

Pero Vidan, Full Professor, Dean of the Faculty of Maritime Studies, University of Split

Špiro Ivošević, Full Professor, Dean of the Faculty of Maritime Studies Kotor, University of Montenegro

Luka Grbić, Associate Professor, Head of Maritime Department, University of Zadar

Captain **Heikki Koivisto**, Project Manager, Maritime Logistics Research Center at Satakunta University of Applied Sciences

Ana-Marija Batinović, Head of Department for Seafarers and Boatmasters, Ministry of the Sea, Transport and Infrastructure

12:30 – 13:30 Lunch break

13:30 – Presentations

		Parallel session - ROOM A Session Chair: Nermin Hasanspahić, Miho Kristić	Parallel session - ROOM B Session Chair: Mate Barić, Maro Car	Parallel session - ROOM C Session Chair: Dinka Lale, Tonči Biočić
1.	13:30 – 13:45	Marino Lupi, Daniele Conte, Alessandro Farina DESIGN AND DEVELOPMENT OF A NEW WEB PLATFORM FOR THE	Heikki Koivisto AUTONOMOUS ASPECTS FROM THE CAPTAIN PERSPECTIVE	Ljudevit Krpan , Ivan Cvitković, Tanja Poletan Jugović , Ines Kolanović USE OF LOCATION THEORY OF TRANSPORT



		MANAGEMENT OF PHYSICAL FLOWS AND CUSTOMS DOCUMENTS AT PORT TERMINALS		FOR DETERMINATION OF LIQUEFIED NATURAL GAS TERMINAL LOCATION
2.	13:45 – 14:00	Ana Gundić, Marko Valčić, Dino Županović, Astrid Zekić MICRO-CREDENTIALS IN MARITIME EDUCATION	Rastislav Kazansky, Lucia Kuchelová, Nina Mijoč THE CAUSES OF PIRACY AS A SECURITY THREAT WITH REGARD TO FRAGILE STATES	Florin Rusca, Aura Rusca, Eugen Rosca, Catalin Coman, Anamaria Ilie SMART EQUIPMENT FOR THE PRESELECTION OF CARGO VEHICLES IN THE MARITIME PORT AREA
3.	14:00 – 14:15	Dimitar Dimitrakiev, Ognyan Kostadinov, Christiana Atanasova ONLINE INTERACTION BETWEEN MANAGEMENT UNITS OF SHIPPING COMPANIES VIA BLOCKCHAIN TECHNOLOGY	Špiro Ivošević EVALUATION OF THE EFFECTIVENESS OF THE ROBOTS' APPLICATION IN THE INSPECTION AND MEASUREMENT OF BULK CARRIER'S STRUCTURAL AREAS	Dino Županović, Ana Gundić, Astrid Zekić, Đoni Štambuk DEVELOPMENT OF LOCAL IMPORTANCE PORT AREAS IN THE CITY OF ZADAR
4.	14:15 - 14:30	Matthew Rooks ONLINE AN ANALYSIS OF SMCP USAGE IN VHF COMMUNICATIONS BY JAPANESE SEAFARERS	Ivan Gospić*, Luka Grbić, Frano Paro Vidolin, Nastia Degiuli ENERGETIC AND ECOLOGY EFFECTS OF THE EGR METHOD FOR NOX REDUCTION ON THE DIESEL ENGINE POWERED SHIPS	Siniša Vilke, Jasmin Ćelić, Borna Debelić, Livia Maglić DECISION-MAKING PROCESS FOR URBAN MOBILITY AND TRAFFIC MANAGEMENT
COFFEE BREAK 14:30–14:45				
5.	14:45 – 15:00	Svetlana Dimitrakieva, Bogdana Dimitrova ONLINE CHALLENGES TO THE EDUCATION OF MARITIME PROFESSIONALS BASED ON DIGITAL PLATFORMS	Stefano Ricci, Luca Rizzetto ESTIMATION AND FORECAST OF GREENHOUSE GAS EMISSIONS FROM SHIPS AT PORTS	Luka Vukić, Roko Glavinović THE BRIDGE ACROSS KAŠTELA BAY AS A TRAFFIC SOLUTION: PROS AND CONS
6.	15:00 – 15:15	Jakub Montewka, Marcin Życzkowski, Filip Zarzycki ONLINE DATA-DRIVEN, PROBABILISTIC MODEL FOR ATTAINABLE SPEED FOR SHIPS APPROACHING GDAŃSK HARBOUR	Leopold Mandić, Alen Jugović, Josip Orović, Igor Rudan ANALYSIS OF PORT INFRASTRUCTURE ON THE CROATIAN COAST OF ADRIATIC SEA FOR BERTHING SHIPS	Rosanda Mulić, Pero Vidan, Stipe Pupiće-Vurilj RISK OF FOOD POISONING ON SHIP AND PREVENTIVE MEASURES



POWERED BY
ALTERNATIVE FUELS

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| 7. | 15:15 –
15:30 | Igor Petrović , Jelena Nikčević, Vera Kapetanović, Tatijana Dlabac
SEAFARERS' EDUCATION AND TRAINING IN PRACTICE: MONTENEGRIN EXPERIENCE | Langa Dlamini
POTENTIAL FOR COASTAL SHIPPING INTEGRATION IN THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY | Igor Vio, Zuzanna Peptowska-Dąbrowska
FULLY AUTONOMOUS SHIPS - A FEW REMARKS ON REGULATORY APPROACH |
| 8. | 15:30 –
15:45 | Lia Dragojević
INTERNATIONAL OFFICIAL LANGUAGE OF MARINE INDUSTRY AND EDUCATION OF SEAFARERS | Astrid Zekić, Ana Gundić , Lucija Županović, Martina Antunović
SCUTTling – AN OVERVIEW OF THE IMPACT ON THE MARINE ENVIRONMENT | Dinka Lale , Matej Hrtica
ENVIRONMENTAL FRIENDLY SHORE POWER CONNECTION |
| 9. | 15:45 –
16:00 | Nikola Mandić, Merica Slišković , Ranka Petrinović, Petra Amižić Jelovčić, Zaloa Sanchez Varela
ACADEMIC BACKGROUND AND COMPETENCIES OF TEACHERS WHO TEACH MARITIME LAW ACCORDING TO STCW (MareLaw project) | Anjaney Borwankar
LEVERAGING BLOCKCHAIN ENABLED E-CERTIFICATES (BEES) FOR MARITIME CERTIFICATIONS: EARLY ADOPTER EXPERIENCES FROM AROUND THE WORLD | |
| 10. | 16:00 –
16:15 | Yordan Denev
ONLINE
CONTROL OF SHIP STRENGTH DURING HULL REPAIR | Anjaney Borwankar
APPLICATION OF ARTIFICIAL INTELLIGENCE TO FACILITATE DECARBONISATION VIA JUST-IN-TIME BUNKERING | |

* to be confirmed

17:00 - Guided sightseeing tour



15 September 2023 (Friday)

KEYNOTE

09:00 – 09:30 Dr. Syed Asif Altaf Chowdhury

**09:30 – 11:00 Panel session II – Business sector
(Panel discussion with Q&A from the audience)**

SAFETY, INNOVATION AND RESILIENCE IN THE MARITIME SECTOR

The biggest challenges facing the shipping industry are environmental regulations, digitalisation, legal framework, rising costs, safety and human resources. Some of the most important questions are the following. What are the main challenges related to seafarers' mental health? Is there a possible alarming trend for the coming years regarding seafarers' mental health? How can living conditions on ships be improved? How can young people be encouraged to choose this profession? What needs to change to empower women in the maritime industry? How can maritime development be improved through a legal framework? How to deal with the accelerated development of technology? What are the risks of MASS? How will the shipping industry deal with cyber security in the operation of autonomous ships or remote control centre on shore? SOLAS and COLREGS are based on the definition of "master". So who will be the captain of MASS ships? What are the differences between shipping today and in the past (training, stress, multiculturalism)? Which personnel are most lacking?

Moderator: Captain **Heikki Koivisto**, Project Manager, Maritime Logistics Research Center at Satakunta University of Applied Sciences

Panelists:

Romano Perić, ITF Coordinator

John Reid, Training and Recruitment Manager, Seapeak

Vitomir Bjelovučić – Mooring Mariner at AET

Srećko Ban – Master Mariner RCCL

Marko Domijan, CEO, Atlantska Plovidba Plc

Veljko Rusković, GCL

11:00 – 11:20 Coffee break



11:30 – Presentations

		Parallel session - ROOM A Session Chair: Astrid Zekić, Miho Kristić	Parallel session - ROOM B Session Chair: Maro Ćorak, Ivica Krmek	Parallel session – ROOM C Session Chair: Anamarija Falkoni, Zvonimir Šoša
1.	11:30 – 11:45	Milena Dževerdanović- Pejović THE CONCEPT OF MARITIME DISCOURSE COMMUNITY: A SEA OF GENRES	Darko Glujić, Dean Bernečić, Goran Vizentin, Goran Vukelić, Josip Orović CFD FIRE MODELLING IN A VIRTUAL SHIP ENGINE ROOM	Mira Šorović, Nexhat Kapidani, Žarko Lukšić, Vlado Frančić , Marko Strabić, David Brčić, Ana Malovrh, Zorica Đurović, Toni Maričević HARMONIZATION OF VTS TRAINING PROGRAMS – A CASE STUDY OF THE ADRIATIC-IONIAN REGION
2.	11:45 – 12:00	Ljubica Vidović, Gorana Jelić Mrčelić MARINE RENEWABLE ENERGY	Ladislav Stazić, Branko Lalić, Danijel Bartulović SHIP COMPONENTS IDENTIFICATION SYSTEMS	Ivica Đurđević-Tomaš, Darijo Mišković, Nermin Hasanspahić ASSESSMENT OF CRUISE SHIP SAFE ENTRANCE IN A PORT AS A PART OF THE DECISION SUPPORT SYSTEM
3.	12:00 – 12:15	Stipe Galić, Zvonimir Lušić, Mate Vukić ANALYSIS OF SHIPS AND BOATS ACCIDENTS ON THE CROATIAN PART OF THE ADRIATIC SEA	Przemysław Krata, Tomasz Hinz, Zbigniew Szozda, Spencer Dugan DEVELOPMENT OF A NEURAL NETWORK BASED DECISION SUPPORT TOOL PROVIDING OPERATIONAL GUIDANCE ON SHIP STABILITY	Rafał Szłapczyński, Mateusz Gil , Joanna Szłapczyńska, Marcin Życzkowski, Jakub Montewka A CONCEPT OF HOLISTIC DECISION SUPPORT SYSTEM FOR MARITIME COLLISION AVOIDANCE – A FRAMEWORK WITH APPLICATION
4.	12:15 – 12:30	Ivica Đurđević-Tomaš, Maro Ćorak OVERVIEW OF SHIP STABILITY AND HULL STRENGTH FROM PRACTICE ORIENTED AND DESIGN POINT OF VIEW	Maro Ćorak, Antonio Mikulić, Joško Parunov LONG-TERM VWBM OF LARGE CONTAINER SHIPS ACCORDING TO THE NEW IACS REC. NO 34 REV 2	Darijo Mišković SEAFARERS' ATTITUDES TOWARDS MARITIME SAFETY REQUIREMENTS: INSIGHTS INTO REALITY



LUNCH 12:30 –

BREAK 13:30

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| 5. | 13:30 – 13:45 | Miho Kristić , Tonći Biočić, Nermin Hasanspahić, Srđan Vujičić, Maro Car
USAGE OF SAFETY DEPTH SETTING IN ROUTE PLANNING | Joško Parunov
NUMERICAL AND EXPERIMENTAL SIMULATIONS IN DESIGN OF A TOURIST SUBMARINE | Chavdar Alexandrov, Nikolay Ivanov , Igljika Ivanova-Slavova
SUSTAINABLE SHIP RECYCLING – WHAT IS THE CURRENT SITUATION |
| 6. | 13:45 – 14:00 | Lea Vojković , Srđan Vujičić, Josipa Vujević, Dejan Lovrinčević
ANALYSIS OF INACCURATE DEPTH DATA USING ECDIS AND RECOMMENDATIONS FOR IMPROVING ACCURACY | Rositsa Bakalova
METHOD FOR EVALUATION THE ECONOMIC EFFICIENCY DUE TO THE USE OF COMPOUND MARINE DIESEL FUELS | Ivica Đurđević-Tomaš , Darijo Mišković, Nermin Hasanspahić
DETERMINATION OF MARITIME ROUTES AND TRAFFIC FLOWS IN THE IMPLEMENTATION OF MARITIME SPATIAL PLANNING |
| 7. | 14:00 – 14:15 | Tonći Biočić , Vlado Frančić, Nermin Hasanspahić, Lovro Maglić
THE MOST SIGNIFICANT PSC DEFICIENCIES | | Ivan Carević , Tomislav Sunko, Toni Mišković, Marin Delić
CROATIAN COAST GUARD'S ACTIVITIES IN THE MARINE FISHERIES CONTROL |

18:30 – 20:00 – Karaka boat tour*

*Meeting point: 17:30 Student dorm reception (bus transfer)

18:15 The old port of Dubrovnik

20:30 – Gala dinner - [Museum of Modern Art Dubrovnik](#)

