

# ICTS 2024

20 <sup>th</sup> of May 2024		
9 <sup>00</sup> - 10 <sup>00</sup> Registration		
10 <sup>00</sup> - 10 <sup>20</sup> Conference opening		
10 <sup>20</sup> - 12 <sup>00</sup> Plenary session		
12 <sup>00</sup> - 13 <sup>30</sup> Lunch break		
13 <sup>30</sup> - 16 <sup>00</sup> Sessions		
1.1	1.2	1.3
16 <sup>00</sup> - 16 <sup>30</sup> Coffee break		
16 <sup>30</sup> - 19 <sup>00</sup> Sessions		
2.1	2.2	2.3
~ 19 <sup>30</sup> Conference dinner at "Veduta" restaurant (Bernardin)		
21 <sup>st</sup> of May 2024		
9 <sup>30</sup> - 10 <sup>00</sup> Registration		
10 <sup>00</sup> - 12 <sup>00</sup> Sessions		
3.1	3.2	3.3
12 <sup>00</sup> - 13 <sup>30</sup> Lunch break		
13 <sup>30</sup> - 15 <sup>00</sup> Sessions		
4.1	4.2	4.3
15 <sup>00</sup> - 15 <sup>15</sup> Closing of the conference		

 Emerald I

 Mediteranea I

 Mediteranea II

## SPONSORS



**FPP**

UNIVERSITY OF LJUBLJANA  
Faculty of Maritime Studies and Transport



Slovenske železnice



OBRT-OPREMA



**PROVIA**

projektiranje, svetovanje, ekologija



**SEESARI**

South East Europe  
Strategic Alliance for Rail Innovation

SS Metal, d.o.o.



**METRANS**



All Ways Ten



Member of GBB



**CONFERENCE OPENING: 10<sup>00</sup> - 10<sup>20</sup> Emerald I**

Marina Zanne, chair of the organizing committee of ICTS

Peter Vidmar, dean of the Faculty of Maritime Studies and Transport, University of Ljubljana

Sebastian Belz, European Platform of Transport Sciences

**PLENARY SESSION - THE GREENING OF TRANSPORT: 10<sup>20</sup> - 12<sup>00</sup> Emerald I**

Boštjan Pavlič, Luka Koper, d.d.

Andrej Šmuc, Adria Kombi, d.o.o.

Peter Verlič, Združenje Seesari

Ulrich Zorin, DARS

**1.1 LOGISTICS (6): 13<sup>30</sup> - 16<sup>00</sup> Emerald I, Moderator: Ivona Bajor**

(32) Patricija Bajec, Halyna Pivtorak, Libor Švadlenka and Radek Vrba

ANALYZING THE CHARACTERISTICS OF POTENTIAL LAST-MILE CROWDSHIPPIERS: INSIGHTS FROM SURVEY DATA IN SLOVENIA, UKRAINE, AND THE CZECH REPUBLIC

(11) Veronika Slapnik, Patricija Bajec and Halyna Pivtorak

EXAMINING THE PREFERENCES OF POTENTIAL LAST-MILE CROWDSHIPPIERS IN SLOVENIA ACROSS THREE TRANSPORTATION MODES

(40) Zhang Ruiyang, Xiao Junfeng and Florian Heinitz

URBAN CASE STUDIES ON OPTIMIZED TRUCK-DRONE LAST-MILE DISTRIBUTION

(69) Marko Veličkovič, Đurđica Stojanović and Katarina Knežević

THE POTENTIAL AND IMPORTANCE OF ENVIRONMENTAL INCENTIVES IN E-COMMERCE

(77) Margareta Živičnjak, Kristijan Rogić and Ivona Bajor

AUGMENTED REALITY TECHNOLOGIES APPLICATION IN THE WAREHOUSE SYSTEM

(91) Amel Kosovac, Ermin Muharemović and Adisa Medić

SECURITY OF CENTRAL WAREHOUSES

**1.2 PUBLIC TRANSPORT & SUSTAINABLE DESTINATIONS (7): 13<sup>30</sup> - 16<sup>00</sup> Mediteranea I, Moderator: Borna Abramović**

(51) Nikola Kožul, Luka Novačko and Karlo Babojelič

TRANSFORMING PUBLIC TRANSPORT: THE IMPLEMENTATION OF NEW LINES FOR ENHANCED CONNECTIVITY AND ACCESSIBILITY

(47) Tina Šfiligoj and Aljoša Peperko

A MAX-PLUS ALGEBRAIC MODEL OF BUS BUNCHING AND CONTROL STRATEGIES

(39) Maja Ahac, Igor Majstorović, Saša Ahac and Stjepan Lakušić

SMART SEGMENTATION IN TRAM TRACK GEOMETRY ANALYSIS

(48) Jure Šarič, Igor Štimac, Martin Starčević and Borna Abramović

DETERMINATION OF CRITERIA FOR STRENGTHENING THE MULTIMODAL CONNECTIVITY OF AIRPORTS

(24) Marina Zanne, Elen Twrdy, Bojan Beškovnik, Elena Cocuzza, Michela Le Pira and Matteo Ignaccolo

MARITIME PASSENGER TRANSPORT CONNECTING URBAN AREAS: THE CASE STUDY OF CATANIA BASED ON TRIESTE EXPERIENCE

(84) Tiziana Campisi, Antonio Russo, Elen Twrdy, Marina Zanne and Giovanni Tesoriere

SOME CONSIDERATIONS ON THE ANALYSIS OF PORT CENTRALITY IN THE ADRIATIC BASIN FOR TOURIST TRANSPORT PURPOSES

(97) Senka Šekularac-Ivošević

TOWARDS A SUSTAINABLE MARITIME DESTINATION: DOES WELL-BEING MAKE IT MORE ATTRACTIVE?

**1.3 PORTS AND THEIR IMPACTS (8): 13<sup>30</sup> - 16<sup>00</sup> Mediteranea II, Moderator: Arnaud Serry**

(12) Arnaud Serry, Ronan Kerbirou and Yann Alix

ADRIATIC PORTS IN THE EVOLVING DYNAMICS OF THE MEDITERRANEAN MARITIME LANDSCAPE

(106) Olutola Akinsolu and Evelin Krmac

ANALYSES OF THE TEU CONTAINER THROUGHPUT: CASE STUDY ON THE SELECTED PORTS OF EUROPE AND CHINA

(52) Mozhgan Mansouri Kaleibar and Evelin Krmac

EFFICIENCY OF CONTAINER PORTS: COMPARISON OF ITALIAN AND OTHER ADRIATIC PORTS USING NON-RADIAL DEA

(62) Elena Valionienė, Erika Župerkienė

MODELLING SYSTEM OF MANAGERIAL INTERVENTIONS FOR ENHANCEMENT RESILIENCE OF PORT ORGANIZATIONAL ECOSYSTEMS

(26) Marko Golnar and Bojan Beškovnik

ENVIRONMENTAL DYNAMIC OF PORT CONGESTION IN EXTRAORDINARY SITUATIONS: A STUDY OF IMPACTS IN LUKA KOPER

(110) Vincenza Torrisi, Elena Cocuzza and Matteo Ignaccolo

SIMULATION MODEL TO ASSESS FREIGHT FLOW EFFECTS IN THE URBAN-PORT ROAD INTERFACE: A PRACTICAL USE-CASE FOR THE COMMERCIAL PORT IN CATANIA (ITALY)

(79) Jure Srše, Marko Perkovič, Peter Vidmar, Andrej Androjna and Tanja Brcko Satler

SMALL CRAFT PORT DESIGN IN SLOVENIA

(111) Peričin Ljiljana and Grbić Luka

THE INFLUENCE OF THE PORT OF GAŽENICA ON THE DEVELOPMENT OF MARITIME INFRASTRUCTURE OF ZADAR COUNTY



## 2.1 PROJECTS (7): 16<sup>30</sup> - 19<sup>00</sup> Emerald I, Moderator: Violeta Jurkovič

(89) Zorica Đurović and Tatijana Dlabac

LEXICAL PROFILING AND BUILDING TECHNICAL GLOSSARIES

(15) Violeta Jurkovič and Tanja Brcko Satler

ADVANCING NAVIGATIONAL SAFETY: DIGIMAR'S PROJECT FOCUS ON ROUTINE MARITIME COMMUNICATION

(63) Elisa Maria Vittoria Bertolini, Caterina Caramuta, Lorenzo Castelli, Giovanni Longo and Caterina Vidulli

MAY INFO-MOBILITY SOLUTIONS CONTRIBUTE TO INCREASE SUSTAINABLE TRANSPORT CONNECTIVITY? LESSONS LEARNED FROM E-CHAIN PROJECT

(116) Blaž Luin, Patricija Bajec, Vivien Lorenčič, Marina Zanne, Danijela Tuljak-Suban and Elen Twrdy

ADMIRAL'S MULTIMODAL DIGITAL MARKETPLACE IN THE LOGISTICS INDUSTRY: ADDRESSING CORPORATE SUSTAINABLE DEVELOPMENT REPORTING DIRECTIVE (CSRD)

(35) Afrodit Anagnostopoulou

POLICY IMPLICATIONS OF THE "CORPORATE SUSTAINABILITY DUE DILIGENCE DIRECTIVE" IN THE INDUSTRY OF LOGISTICS

(118) Monika Bak, Przemyslaw Borkowski, Krzysztof Grzelec and Dariusz Tloczynski

SOCIAL IMPACT SURVEY IN THE COMPREHENSIVE EVALUATION OF ROAD PROJECTS

(100) Daniela Koltovska Nechoska, Renata Petrevska Nechoska, Renata Duma and Mimoza Bogdanovska Jovanovska

AI-BASED TRAFFIC CONTROL AND MANAGEMENT SYSTEMS A SYNTHESIS OF MACEDONIAN RESEARCH EXPERIENCES

## 2.2 CHALLENGES IN UNDERWATER TRANSPORT (5): 16<sup>30</sup> - 19<sup>00</sup> Mediteranea I, Moderator: Piotr Szymak

(90) Radosław Kiciński

THE INFLUENCE OF HYDROSTATIC PRESSURE LOAD ON THE LOSS OF SUBMARINE BUOYANCY

(95) Maciej Szymkowiak

USING RECURRENT NEURAL NETWORKS TO BUILD A DATA-DRIVEN MODEL OF AN AUTONOMOUS UNDERWATER VEHICLE

(93) Maksymilian Wrzesień and Jakub Stalica

SONAR HANDLING AND DATA FILTERING SYSTEM FOR THE DETECTION OF OBJECTS BY AN UNDERWATER VEHICLE

(92) Piotr Szymak and Tomasz Praczyk

CONTROL OF AUV SWARM IN THE FIXED COLUMN FORMATION USING EXPERT SYSTEM

(94) Stanisław Hożyń

LOCALISATION OF UNDERWATER AUTONOMOUS VEHICLES IN A SWARM FORMATION BASED ON COMPUTER VISION

## 2.3 MARITIME SAFETY I (7): 16<sup>30</sup> - 19<sup>00</sup> Mediteranea II, Moderator: Špiro Ivošević

(41) Vladimir Brozović, Danko Kezić, Rino Bošnjak and Filip Brozović

AVOIDANCE ROUTE CALCULATION AND CHECK FOR OBSTACLES

(36) Luka Mihanović, Ivona Balić Dorić, Ante Sršen and Dražen Brkić

SEA MINES IN THE ADRIATIC SEA; THE ASYMETRICS THREAT

(37) Zvonimir Lušić, Tony Pinčetić, Mirko Čorić and Miro Petković

THE CITY PORT OF SPLIT - ASSESSMENT OF THE RISK OF COLLISIONS AND GROUNDINGS

(17) Dejan Žagar and Franc Dimc

THE MARITIME SAFETY PARADIGM: INTEGRATING BIOMETRIC READINGS WITHIN THE SHIP'S BRIDGE INFRASTRUCTURE, INVOLVING VDES SYSTEMS

(27) Tonči Biočić, Nermin Hasanspahić, Ivica Đurđević-Tomaš and Miho Kristić

USAGE OF SLIM METHODOLOGY FOR IMPROVING THE SAFETY OF LIFEBOAT DRILLS PERFORMANCE

(86) Blagovest Belev and Dimitar Komitov

EFFICIENCY OF ECDIS TYPE SPECIFIC EDUCATION AND TRAINING

(43) Špiro Ivošević and Nataša Kovač

CORROSION DEGRADATION IMPACT ON CARGO HOLD MAIN FRAMES OF SINGLE SKIN BULK CARRIERS



### 3.1 ENVIRONMENTAL ASPECT OF MARITIME TRANSPORT (6): 10<sup>00</sup> - 12<sup>00</sup> Emerald I, Moderator: Vidmar Peter

(13) Ronan Kerbiriou, Arnaud Serry and Yann Alix

ESTIMATING POLLUTANT EMISSIONS FROM SEA CRUISE IN THE ADRIATIC SEA IN 2023 AND REGULATORY MEASURES

(81) Marin Hero, Peter Vidmar, Patrick Vlačić and Marko Perkovič

LIMITING GREENHOUSE GAS EMISSIONS IN THE MARITIME TRANSPORT SECTOR

(115) Maciej Gućma

A CRITICAL ANALYSIS OF THE UTILIZATION OF FOSSIL FUELS BY THE MARITIME SECTOR CONCERNING THE DECARBONIZATION PROCESS

(14) Attila Akac, Afroditi Anagnostopoulou and Vassilios Kappatos

INVESTIGATION OF METHANOL AS LONG-TERM ENERGY EFFICIENCY SOLUTION FOR MARITIME DECARBONIZATION IN CONTAINER VESSELS

(29) Danijela Tuljak-Suban, Urban Pegan, Vinko Bandelj, Jure Demšar, Marko Perkovič and Valter Suban

IMPORTANCE OF ENVIRONMENTAL FACTORS IN COASTAL VULNERABILITY IN NORTHERN ADRIATIC

(9) Ruth García-Llave, Fabio Héctor Echeverry Andrade and Ciro Jaramillo Molina

MARITIME SPACES AS A STRATEGIC ENVIRONMENT FOR THE CLIMATE SECURITY OF THE EUROPEAN UNION

### 3.2 SCIENCE IN TRANSPORT (6): 10<sup>00</sup> - 12<sup>00</sup> Mediteranea I, Moderator: Andrzej Grządziela

(3) Mišo Bilobrk, Tina Perić, Ladislav Stazić and Branko Lalić

ANALYSIS OF COMPLEX RELIABILITY, CASE STUDY

(53) Ivica Skoko, Mario Musulin, Hrvoje Nenad Musulin and Zlatko Boko

IMPACT ASSESSMENT OF EXTERNAL FACTORS ON THE CONSTANT RADIUS TURN TECHNIQUE IN THE CALCULATION OF WHEEL OVER POINT

(45) Vivien Lorenčič and Milan Batista

VEHICLE ACCELERATION MODELING WITH CONSTANT POWER: MANUAL, AUTOMATIC AND ELECTRIC TRANSMISSION

(58) Alex Coiret and Pierre-Olivier Vandanjon

ROAD FORCE SENSOR FOR VEHICLE GRIP ESTIMATION AND ROAD MONITORING DEVICES VERIFICATION

(28) Saša Ahac, Maja Ahac, Igor Majstorović and Silvio Bašić

THE INFLUENCE OF GEOMETRIC PARAMETERS ON THE ENTRY CAPACITY OF TWO-GEOMETRY ROUNDABOUTS

(102) Andrzej Grządziela and Stanisław Hożyń

SIMULATION MODEL OF THE HIGH-SPEED BOAT

### 3.3 A LITTLE BIT OF EVERYTHING (6): 10<sup>00</sup> - 12<sup>00</sup> Mediteranea II, Moderator: Lidija Runko Luttenberger

(68) Tomislav Skračić, Luka Vukić and Roko Glavinović

KEY MESSAGES OF ADVERTISING SLOGANS IN THE MARITIME INDUSTRY

(54) Roko Glavinović, Luka Vukić and Ivan Peronja

ELECTRIFICATION OF FERRY LINES IN CROATIA: ANALYZING INTEGRATION FACTORS

(23) Peyman Asmari and Stefano Ricci

TRACK ACCESS CHARGE IN EUROPEAN RAILWAYS: COMPARATIVE APPROACH TO IMPROVE EFFECTIVENESS

(101) Lidija Runko Luttenberger, Ivica Ančić and Axel Luttenberger

ENVIRONMENTAL IMPACT ASSESSMENT PROCEDURE IN TRANSPORT CONSTRUCTION PROJECTS

(10) Tomasz E. Burghardt, Darko Babić, Ivana Kučina and Dario Babić

EROSION OF ROAD MARKINGS IN CROATIA AND ESTIMATE OF CONTRIBUTION TO MICROPLASTIC POLLUTION

(114) Adam Torok and Mohammad Maghrour Zefre

CONSUMER PREFERENCES FOR AUTONOMOUS VEHICLES: A LITERATURE REVIEW



#### 4.1 ROAD TRANSPORT (5): 13<sup>30</sup> - 15<sup>00</sup> Emerald I, Moderator: Darko Babić

(1) Filip Zivković, Boris Antić and Tomislav Petrović  
URBAN ROAD SAFETY IN THE REPUBLIC OF SERBIA

(83) Julijan Jurak, Mario Ćosić, Antonijo Tišljar and Ivan Nemet

PROMOTING SAFER AND MORE SUSTAINABLE URBAN MOBILITY: EXPLORING REDUCED SPEED LIMITS FOR IMPROVED ROAD SAFETY IN URBAN ENVIRONMENTS

(87) Marin Žunac, Marija Ferko, Darko Babić and Mario Fiočić

INFLUENCE OF ALCOHOL ON YOUNG DRIVERS' PERFORMANCE: A DRIVING SIMULATOR STUDY

(46) Victoria Gitelman and Etti Doveh

DEVELOPMENT OF SUPPORTING TOOLS FOR SAFETY MANAGEMENT OF NON-URBAN ROADS, IN ISRAEL

(117) Tomasz Figlus and Piotr Szafranec

ANALYSIS OF THE EXPOSURE OF A MOTORCYCLE DRIVER TO VIBRATION IN NON-STATIONARY TRAFFIC CONDITIONS

#### 4.2 MARITIME SAFETY II (4): 13<sup>30</sup> - 15<sup>00</sup> Mediteranea I, Moderator: Stefano Ricci

(19) Stefano Ricci and Luca Rizzetto

IMPROVING SAFETY OF MARITIME CONTAINERS SHIPPING

(85) Marko Perkovič, Milan Batista, Maciej Gućma and Peter Vidmar

BREAKAWAY OF LARGE UNEVENLY LOADED CONTAINER SHIPS

(112) Lucjan Gućma and Marko Perkovič

WAITING FOR THE NEXT CATASTROPHE; CASE STUDY ON THE ACCIDENT IN BALTIMORE

(113) Agnieszka Nowy

MODELLING OF VESSEL TRAFFIC FLOW NEAR THE VICINITY OF OFFSHORE WIND FARMS BASED ON AIS DATA

#### 4.3 AIR TRANSPORT (3): 13<sup>30</sup> - 15<sup>00</sup> Mediteranea II, Moderator: Zvonimir Rezo

(5) Anja Stamenić, Olja Čokorilo, Jelica Petrović Vujačić and Nebojša Radojković

CIVIL AVIATION SECURITY AND THE ECONOMY

(105) Tomo Bagarić, Zvonimir Rezo and Sanja Steiner

HIGH-ALTITUDE PSEUDO-SATELLITE PLATFORMS AS SUPPORT TO AIR TRAFFIC MANAGEMENT

(30) Zvonimir Rezo, Sanja Steiner, Andrea Tikvica and Dario Fakleš

AIRCRAFT ENGINE EMISSIONS REPORTING INFORMATION SYSTEM

#### Closing of the conference: 15<sup>00</sup> - 15<sup>15</sup> Emerald I