



The International Maritime Transport & Logistics Conference

MARLOG 13

Towards Smart Green Blue Infrastructure

Program

03 – 05 March 2024 **Sunday, 3rd March 2024**



Translation Available

Session 1

Collaborative Strategies for a Sustainable Resilient Ports

Prof. Yousry Elgamal

Chairman of IT Committee, National Council of Education, Culture, and Science (UNESCO, ISESCO, ALECSO)

Former Minister of Education

Head, MARLOG Conference Technical Committee, AASTMT

12:30 Collaboration is the Fuel of the Future

Mr. Emanuele Grimaldi

Chairman of International Chamber of Shipping,
Managing Director of the Grimaldi Group, Italy

13:00 Green and Blue Economy across the Euro-Mediterranean Region

Mr. Nasser Kamel

Secretary General, Union for the Mediterranean, Spain

13:15 Port and Waterway Infrastructure of the Future

Eng. Francisco Esteban Lefler

President, The World Association for Waterborne Transport Infrastructure (PIANC),
Brussels, Belgium

13:30 No Miracles Requested! How Ports can play an effective role in decarbonizing international trade without disrupting excessively our everyday lives

Mr. Pino Musolino

President of MEDPorts Association

President and CEO of North Central Tyrrhenian Sea Port Authority - Ports of Rome

13:45 Session Discussion

14:00 Break



Translation Available

Session 2

Navigating the Blue Path: Leading the Way to Sustainable Development

Session Chair

Prof. Dana Corina Deselnicu

Director of the Doctoral School of Entrepreneurship, Business Engineering and Management, University POLITEHNICA of Bucharest, Romania

14:15 **Seaports' Contribution Towards Sustainable Development - Potentials and Challenges**

Prof. Burkhard Lemper

President of Global Shipping Think Tank Alliance (GSTTA), Shanghai, China.

Managing Director, Institute of Shipping Economics and Logistics (ISL)

Professor at the Bremen City University of Applied Sciences, Germany

14:30 **Decarbonizing Ports: The Valencia Case**

Mr. Victor Collazos

Research and Development Manager, Valencia Port Foundation, Spain

14:45 **Trends and Innovations in Sustainable Port Development and supply chains**

Mr. Stefan Cassemon

Director, Antwerp/Flanders Port Training Centre, Antwerp, Belgium

15:00 **An Innovative Approach to Port Monitoring: Digital Twin, Strategic Decision Systems and Port Governance**

Dr. Francescalberto De Bari, Dr. Gianluca Dini, Dr. Giovanni Nardini, Dr. Francesco Papucci, Dr. Matteo Paroli, Dr. Manuela Scarsi, Dr. Ivano Toni, and Dr. Mohi-Eldin M. Elsayeh

Head, EU Programs, The North Tyrrhenian Sea Ports System Authority, Italy.

15:15 **Session Discussion**

15:30 **Lunch**



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MARLOG 13

Towards Smart Green Blue Infrastructure

DAY 2

Monday, 04th March 2024



Translation Available

Session 3 A

The Future of Green Ports: Resilience, Sustainability, and Adaptation

Session Chair

Prof. Hossam Moghazay

Former Minister of Water Resources and Irrigation, Egypt

- 09:00 **Key Challenges for the Sustainable Development of Ports and Ongoing Work by IAPH**
Dr. Antonis Michail
Technical Coordinator IAPH and WPSP, International Association of Ports and Harbors, Belgium.
- 09:15 **MEDPorts in the Era of Disruptions. How to Adapt to Uncertainty**
Mr. Jordi Torrent
MEDPorts Association Secretary General, Barcelona, Spain.
- 09:30 **Coping with Shocks, Disruptions and Changing Conditions by Promoting sustainable, Climate-Resilient and Resilient Port Infrastructure.**
Eng. Francesc Carbonell
Head, Transport and Development Sector, Union for the Mediterranean, Spain.
- 09:45 **Maritime Engineering Education: A Cruise School Activity on Board Case**
Ms. Anastasiia Rozhok, Prof. Roberto Revetria, Dr. Ahmad Khursheed and Dr. Tiziano Miroglio
Department of Mechanical Engineering, University of Genoa, Genoa, Italy.
- 10:00 **Assessment of Renewable Energy Supply for Shore Side Electricity in Green Ports**
Eng. Miral Michel, Prof. Akram Soliman and Dr. Ahmed S. Shehata
Marine and Offshore Engineering, College of Engineering and Technology, AASTMT, Alexandria, Egypt.
- 10:15 **Session Discussion**
- 10:30 **Coffee Break**



Session 3 B

Sustainable Maritime Operations: Optimizing Performance Through Technology (1)

Session Chair

Prof. Moustafa Hussien

President Consultant for Alamein Branch,
Professor of Electronics & Communication Engineering, AASTMT

- 09:00** **Optimizing Marine Diesel Engine Maintenance: A Proactive Cost-Efficiency Strategy.**
Eng. Miral Armanious, Eng. Omar M. Alkholy, Eng. Omar K. Mahdy, Eng. Kareem M. Yousef,
Eng. Mohamed N. Abdalazeem, Eng. Omar M. Mowafy and Dr. Ahmed S. Shehata
Head, Marine and Offshoring Department, College of Engineering and Technology,
AASTMT, Alexandria, Egypt.
- 09:15** **Assessment of Ship Fouling Formation, Prevention and Environmental Impact.**
Dr. Fawzy Dekinesh and Dr. Mona Kaamoush
Head, Natural Gas and Petrochemical Dep., Integrated Simulator Complex,
AASTMT, Alexandria, Egypt.
- 09:30** **2D Model for Trim Optimization of Tugboat During Bollard Pull.**
Dr. Emad Mostafa, Dr. Ahmed S. Shehata, Dr. Ahmed Mehanna and Dr. Elsayed Hegazy
Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt.
- 09:45** **Efficient Industrial Wastewater Recycling with IOT**
Dr. Yehia M. Youssef, Dr. Mohamed K. Hassan and Dr. Moamen A. Morsi
Chemical and Petrochemical Engineering Department, College of Engineering and Technology,
AASTMT, Alexandria, Egypt
- 10:00** **The Role of Applying Advanced Cargo Information System on Improving The Performance Of Alexandria Port**
Mr. Karim Ashraf Abdelkarim, Dr. Ahmed Ismail Ahmed Hafez and Mr. Ashraf Ali Abdo Qardash.
Institutional Research Department, AASTMT, Egypt.
- 10:15** **Session Discussion**
- 10:30** **Coffee Break**



Translation Available

Session 4 A

Inland Waterway Connections for a Greener Canals and Rivers Sustainability

Session Chair

Prof. Khaled Elsakty
Dean, College of International Transport & Logistics,
AASTMT, Cairo

- 11:00** **Navigating Green: The Impact of IMO's Environmental Policies on Global Shipping and the Suez Canal.**
Mr. Ahmed Hussein Selim and Prof. Adla Ragab
Economic Researcher, Department of Economics - Faculty of Economics and Political Science - Cairo University, Egypt.
- 11:15** **Analyzing the Impacts of a Suez Canal Logistics Hub on the Global Shipping Industry: A Case Study of the Steel Sector**
Mr. Omar Mokhtar and Dr. Khaled El Sakty
College of International Transport and Logistics,
Arab Academy for Science, Technology and Maritime Transport, Cairo, Egypt.
- 11:30** **The Efficiency of River Port Logistics and Its Role in Improving Inland Water Transport Operations in Egypt**
Dr. Dalia Hosni Eldeasty, Mr. Mostafa Mohamed Saber, Mr. Omar Mostafa Mohamed Ahmed and Mr. Ahmed Mohamed Omar Ibrahim
Port Training Institute, Port Said Branch, AASTMT
- 11:45** **Improving the River Nile Sustainability through Recycling Retrieved Plastic Waste**
Dr. Mohamed K. Hassan, Dr. Yehia M. Youssef and Dr. Ahmed A. Ghoneim
Professor of Industrial and Management Engineering, College of Engineering and Technology,
Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt.
- 12:00** **Session Discussion**
- 12:30** **Coffee Break**



Session 4 B

Smart, Green, Blue Infrastructure – Case Studies and Best Practices

Session Chair

Eng. Francisco Esteban Lefler

President, The World Association for Waterborne Transport Infrastructure
(PIANC), Brussels, Belgium

- 11:00** **The Role of Improving the Infrastructure of Multimodal Transport to Enhance the Efficiency of seaports using Interpretive Structural Modeling. (Case Study Damietta port)**
Mr. Islam Abdallah, Dr. Ahmed Ismail, Mr. Ahmed Mansour, Mr. Ahmed Mohamed Omar and Dr. Ahmed Mostafa Dr. Mahmoud Yassine
Lecturer at College of International Transport and Logistics, Egypt.
- 11:15** **Energy Management Optimization Based on Facilities Layout Planning for Port Construction: Mediterranean Region Case Study**
Eng. Alaa Mamdouh, Dr. Elbadr Osman, Prof. Akram Soliman Elselmy and Dr. Ahmed. S. Shehata
Construction and Building Engineering Department, College of Engineering and Technology, AASTMT, Alexandria, Egypt.
- 11:30** **Medicanes and its Metrological Effects in the Mediterranean Sea: Case Study of Medicane Ianos**
Eng. Mohamed Abouelnasr and Prof. Akram Soliman Elselmy
Senior Coastal Engineer, NEOM.
- 11:45** **Effect of Human Interventions on Hydro-dynamics of Sidi-Abdel Rahman Bay “North Western Coast of Egypt”**
Eng. Nada Moghazy, Prof. Akram Soliman and Prof, Maysara Eltahan
Teaching Assistant, Construction Engineering and Management Department, Pharos University, Alexandria, Egypt.
- 12:00** **Optimization of Retrofitting an Anchored Şığeş Pile Quay Wall Using Separated Relieving**



Platform

Eng. Mahmoud Roushdy, Dr. Mohamed Elnaggar and Dr. Ahmed Abdelaziz
Marine Engineer, Hill international, North Africa

- 12:15 **Session Discussion**
12:30 **Break**

Translation Available

Session 5 A

Emerging Technologies and Strategies in Maritime industry – The Gateway to Optimization and Sustainability

Session Chair

Mr. Pino Musolino

President of MEDPorts Association

President and CEO of North Central Tyrrhenian Sea Port Authority, Ports of Rome, Italy

- 13:00 **Discrete event simulation of truck appointment systems in container terminals: A dual transactions approach**
Dr. Davies Bett, Dr. Islam Ali, Dr. Mohamed Gheith and Prof. Amr Eltawil
Egypt - Japan University of Science and Technology,
- 13:15 **Ncos Online and The Future of Port Operations: Insights from the Digital Integration at the Port of Hamburg, Germany**
Dr. Hisham Elsafti, Dr. Stefan Leschka, Dr. Prema Bhautoo and Dr. Christian Heitmann
Senior Consultant Ports & Terminals in Europe and the Middle East DHI WASY GmbH, DHI Group Bremen, Germany.
- 13:30 **PREDICTIVE SIMULATION OF ONSHORE POWER SUPPLY (OPS) REQUIREMENTS FOR PORTS**
Mr. Raul Redondo, Mr. Raul Atienza, Ms. Jose Ramon Iribarren, Mr. Arturo Medio and Mr. Luis Ulla.
Director, Maneuvering and Nautical Studies Area, Siport21, Spain.
- 13:45 **Experimental Assessment to Reduce Emission of Compression Ignition Engine Via Diesel/Biodiesel/Water Blends.**
Dr. Loay M. Aboud, Dr. A.H Abdelbaky Elbatran, Dr. Adel A. Tawfik and Dr. A. E. Elwardany
Senior Maritime Lecture, Marine Engineering Department, Maritime Transport and Technology College, AASTMT, Alexandria, Egypt.
- 14:00 **Session Discussion**



14:30 Lunch

Session 5 B

Modern Strategies for Green Blue Infrastructure Project Management

Session Chair

Mr. Jordi Torrent

MEDPorts Association Secretary General, Barcelona, Spain.

13:00 Securing the Maritime Industry

Dr. Mohamed Abdel Fattah

Regional Subject Matter Expert- OT- Fortinet

13:15 How to Measure Green Port Management as Determinant of Port Attractiveness and Competitiveness?

Mr. Abdelhamid Adarrab and Mr. Mohamed Mamad

Laboratory of Economics and Management of Organizations, Ibn Tofail University, Kénitra, Morocco.

13:30 Comparative Analysis of Port Governance Models for Green Energy Transition

Capt. Ahmed M. Ismail, Capt. Mahmoud M. Attia and Capt. Anas S. Alamoush

Maritime Safety Institute, AASTMT, Alexandria, Egypt

13:45 A Bibliometric Analysis of Maritime HR Competitiveness Research

Ms. Nirmeen Elsayed, Mr. Mahmoud Hamza, Mr. Muhammad A. Arfee, Mr. Ahmed Omar and Mr. Ahmed Atef

Lecturer at College of International Transport and Logistics, AASTMT, Aswan, Egypt

14:00 Investigating the Impact of Maritime Trade New Trends on The Egyptian Maritime Performance

Prof. Sahar Elbarky, Dr. Hebatallah Mohamed Elmesmary, Dr. Sarah El Gamal, and Eng. Marwa Mahfouz

Head, Website Electronic News Department, Information and Documentation Center (IDC)

Arab Academy for Science and Technology and Maritime Transport, Egypt.

14:15 Session Discussion

14:30 Break



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DAY 3

Tuesday, 05th March 2024



Translation Available

Session 6 A

Sustainable Maritime Operations: Optimizing Performance Through Technology (2)

Session Chair

Prof. Aziz Ezzat

President's Advisor of Education Affairs,
Professor of Industrial and Management Engineering, AASTMT

- 09:00** **The Future of Ports: To be More Efficient, Smart and Resilient**
Dr. Zhao Nan
Deputy Secretary-General of Shanghai International Shipping Institute, China
- 09:15** **Elevating Wind Energy Harvesting with J-shaped Blades: A CFD-driven Analysis of H-Darrieus Vertical Axis Wind Turbines**
Dr. Ahmed Abdallah, Dr. Micheal A. William and Dr. Iham F. Zidane
Electrical Energy Engineering Department, College of Engineering and Technology, Arab Academy for Science, Technology and Maritime Transport, Smart Village Campus, Egypt.
- 09:30** **Recovery Braking in Electrified Boats Using Dual Active Bridge Dc-Dc Converter with Ultracapacitor**
Dr. Mostafa Hamad, Eng. Ibrahim Gaber and Dr. Ayman Abdel-Khalik
Researcher, Research and Innovation Center, AASTMT, Alamein, Egypt.
- 09:45** **The Impact of Differences Between Tide Guage and RTK Tide Data on Dredging Calculations in Hydrographic Survey**
Mr. Ahmed Ghareeb, Dr. Eman Hamdan and Dr. Ahmed Magdy
Chief Surveyor at National Marine Dredging Company (NMDC).
- 10:00** **Numerical Analysis of Enhancing Water-drop Fairing Design to Mitigate Vortex-induced Vibrations by Applying Angular Slot**
Eng. Michael Adel Shafik, Eng. Mina G. Mourad, Eng. Osama E. Abdellatif and Dr. Ahmed S. Shehata
College of Engineering and Technology, Arab Academy for Science, Technology and Maritime



Transport, Smart Village Campus, Egypt.

10:15 **Session Discussion**
10:30 **Coffee Break**

Session 6 B

Sustainable Maritime Development Through Technological Innovation

Session Chair

Dr. Elsenousy Balbaa
Vice President for Maritime Affairs, AASTMT

- 09:00 **Digitalization Journey towards a Green and Smart Port**
Mr. Chan Fook
Senior Director, CrimsonLogic Pte Ltd, Singapore.
- 09:15 **Artificial Intelligence and Geospatial Technologies for Sustainable Maritime Logistics**
Dr. Alexandra Ioanid and Eng. Nistor Andrei
Associate Professor, University POLITEHNICA of Bucharest, Romania.
- 09:30 **Greening Maritime Energy: A Sustainable Approach to Hydropower Generation Through Mathematical Modelling in Graving Dock Flooding**
Eng. Miral Armanious, Eng. Omar K. Mahdy, Eng. Omar M. Alkholy, Eng. Kareem M. Yousef, Eng. Yousef M. Shaban, Eng. Amir M. Abu Bakr and Dr. Ahmed S. Shehata
Marine and Offshore Engineering Department, College of Engineering and Technology, AASTMT, Alexandria, Egypt.
- 09:45 **Data and Model Dual Driven Approach Optimizing Appointment Quota of External Container Truck**
Dr. Cuijie Diao, Dr. Huiyun Yang and Dr. Zhihong Jin
Professor, College of Transportation Engineering, Dalian Maritime University, China.
- 10:00 **Simulation-Optimization Model in Managing the Empty Container Movements Problem Through Repositioning Strategies**
Prof. Tomaž Kramberger and Dr. Alaa Abdelshafie
Vice Dean, Faculty of Logistics, University of Maribor, Slovenia.
- 10:15 **Session Discussion**



10:30 **Coffee Break**

Translation Available

Session 7 A

Sustainable Logistics: Leveraging Innovation to Improve Quality, Efficiency, and Environmental Impact

Session Chair

Prof. Stanisław Ślusarczyk
Dean, International University of Logistics and Transport,
Wroclaw, Poland

- 11:00** **Stability Analysis of Maritime Logistics Alliance Based on Blockchain**
Prof. Lixin Shen, Dr. Jinglin Lin, Dr. Yanan Wang and Dr. Xueqi Qian
Vice Dean, School of Maritime Economics and Management, Dalian Maritime University, China.
- 11:15** **Logistics Cooperation In The Far-East: Prioritizing Supply Chain Requirements To Strengthen Intra-Regional Integration Of Maritime Transport Networks**
Dr. Enrico D'Agostini, Prof. Dana Corina Deselnicu, Prof. Frank Bezzina and Dr. Antonietta Rosiello
Senior Lecturer in Logistics - Department of Business & Enterprise Management,
University of Malta, Malta
- 11:30** **Improving The Quality of Services in a Logistic Company Using the Pareto Analysis**
Prof. Dana Corina Deselnicu and Dr. Sandra Hamy Haddad
Director of the Doctoral School of Entrepreneurship, Business Engineering and Management,
University Politehnica of Bucharest, Romania.
- 11:45** **Logistics Performance as Facilitator to Trade Performance: An Indian Perspective**
Dr. Mrinal Kumar Dasgupta, Dr. Toorban Mitra and Dr. Krushna Mohan Pattanaik
Assistant Professor, Indian Maritime University, Kolkata Campus, India.
- 12:00** **Achieving Sustainable Development in Logistics: A Path to Environmental and Economic Efficiency**



Dr. Karolina Wnuk and Prof. Stanisław Ślusarczyk

Logistics and Transport Department, The International University of Logistics and Transport in Wrocław, Wrocław, Poland.

12:15 **Session Discussion**

12:30 **Break**

Session 7 B

Embracing Innovation: Ship Design and Operation

Session Chair

Dr. Mohi El Din Mohamed El Sayeh

Dean, College of Maritime Transport and Technology

11:00 **A Novel Dynamical Route Optimization Method to Improve Ship's Voyage Time Regarding Involuntary Speed Reduction: Time Boundary Semicircles**

Mr. Ahmad A. Moussa, Mr. Amman A. Ali, Dr. Ahmed S. Shehata and Dr. Mohi El Sayeh

Institute of Maritime of upgrading studies, Arab Academy for Science Technology and Maritime Transport

11:15 **The Readiness of Mena Shipyards to Adopt an Integration of Lean Manufacture with Digital Technology in Ship Repair**

Mr. Ahmed Samir Ghowel

PhD Student, University of Technology (UTM) Malaysia

11:30 **Autonomous ships in Confined Areas**

Dr. Thibaut Van Zwijnsvoorde

PhD, Civil Engineer, Nautical Researcher at Flanders Hydraulics Research, Belgium.

11:45 **Incorporating Green Ship Recycling Regulations into the Early Design Stage of Ships**

Capt. Walid Bahgat, Dr. El-Sayed Hegazy, Dr. Heba S. El-Kilani, Dr. Amman Ali and Dr. Mostafa M. Mostafa

Second Lecturer, Institute of Maritime Upgrading Studies, AASTMT, Egypt.

12:00 **Analyzing the Impact of Various Geometries on The Operability of Crew Transfer Vessels**

Dr. Tahsin Tezdogan and Dr. Liam Barbour

Associate Professor in Maritime Engineering, Maritime Engineering Research Group
Department of Civil, Maritime, and Environmental Engineering, University of Southampton
United Kingdom.



12:15 **Session Discussion**
12:30 **Break**

Translation Available

Session 8

Optimizing Maritime Operations Through AI and Technology

Session Chair

Prof. Alaa Abdel-Barry

Vice President for Post Graduate Studies and Scientific Research, AASTMT

- 13:00 **Integrating Artificial Intelligence and Geospatial Technologies for Supply Chain Optimization**
Mr. Nistor Andrei, and Prof. Cezar Scarlat
Doctoral School of Entrepreneurship, Business Engineering & Management, National University for Science and Technology POLITEHNICA Bucharest, Bucharest, Romania.
- 13:15 **A Real-Time Port Performance Monitoring System and Its Application**
Dr. Dong Yang
Associate Professor and Associate Head of the Department of Logistics and Maritime Studies, China
- 13:30 **Development of a Proactive Maintenance Plan for Failure Identification in Ship Engine System**
Eng. Miral Armanious, Dr. Ahmed Mehanna, Dr. Sherine Nagy and Dr. Ahmed S. Shehata
Associate Professor, Computer Engineering Department, College of Engineering and Technology, AASTMT, Alexandria, Egypt.
- 13:45 **Pilot-Assisted Underwater Acoustic Channel Estimation for MIMO OFDM Systems Using Sparse Bayesian Learning Algorithm**
Ms. Asmaa Yahia and Dr. Eman Hamdan
Associate Professor, Electrical Engineering,
Vice Dean, Postgraduates Studies and Scientific Research,
College of Maritime Transport and Technology AASTMT, Alexandria, Egypt.
- 14:00 **Session Discussion**



14:15 **Break**