



The International Maritime Transport & Logistics Conference

# MARLOG 13

Towards Smart Green Blue Infrastructure

# Program

03 – 05 March 2024 **Sunday, 3<sup>rd</sup> March 2024**



# Opening Session

## 10:00 Opening Address

- 🚢 **Prof. Akram Soliman Elselmy**  
Head of the Conference Organizing Committee
- 🚢 **Prof. Ismail Abdel Ghafar Ismail Farag**  
Conference Chairman
- 🚢 **Prof. Maximo Q. Mejia**  
President, World Maritime University (WMU), Malmö, Sweden
- 🚢 **H. E. Ambassador Ali bin Ibrahim al-Malki,**  
Assistant Secretary-General  
Head of the Economic Affairs sector in the Arab League
- 🚢 **H. E. Admiral Osama Rabie**  
Chairman and Managing Director, Suez Canal Authority
- 🚢 **H. E. Major-general: Mohamed Taher Elsherief**  
Alexandria Governor
- 🚢 **H.E. Lieutenant General Kamel Al-Wazir**  
Minister of Transport

- 11:00 ➤ Recognition of **Instrumental Figures**
- 11:15 ➤ Signing a memorandum of understandings
- 11:30 ➤ Opening of the International Maritime Exhibition
- 12:30 ➤ Coffee Break



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 **Green and Blue Economy across the Euro-Mediterranean Region**

**Mr. Nasser Kamel**

Secretary General, Union for the Mediterranean, Spain

12:45 **Port and Waterway Infrastructure of the Future**

**Eng. Francisco Esteban Lefler**

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

13:00 **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

13:15 **Session Discussion**

13:30 **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

**13:45** **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

**14:00** **Decarbonizing Ports: The Valencia Case**

**Mr. Victor Collazos**

Research and Development Manager, Valencia Port Foundation, Spain

**14:15** **Trends and Innovations in Sustainable Port Development and supply chains**

**Mr. Stefan Cassimon**

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

**14:30** **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.

**14:45** **Session Discussion**

**15:00** **Lunch**



**The International Maritime Transport & Logistics Conference**

# **MARLOG 13**

**Towards Smart Green Blue Infrastructure**

**DAY 2**

**Monday , 04<sup>th</sup> March 2024**



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# 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 WSP, 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** **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.
- 10:00** **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**  
M.Eng Student, College of Engineering and Technology, Alexandria, AASTMT.  
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 Sheet 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 Measuring green port management as determinant of port attractiveness and competitiveness**

**Dr. Abdelhamid Adarrab and Prof. 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**



**The International Maritime Transport & Logistics Conference**

# **MARLOG 13**

**Towards Smart Green Blue Infrastructure**

**DAY 3**

**Tuesday, 05<sup>th</sup> 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**  
**Eng. Ahmed Abdallah, Dr. Micheal A. William and Dr. Iham F. Zidane**  
Utilities and Energy Section Head, Veterinary Investment Group Pharmaceuticals  
M.sc Candidate, College of Engineering and Technology, AASTMT, Smart Village Campus, Egypt.
- 09:30 Recovery Braking in Electrified Boats Using Dual Active Bridge Dc-Dc Converter with Ultracapacitor**  
**Prof. Mostafa Hamad, Eng. Ibrahim Gaber and Dr. Ayman Abdel-Khalik**  
Director, Research and Innovation Center.  
Professor, Electrical and Control Eng. Dept., College of Engineering and Technology, 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 Seng**  
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**



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# Session 7 A

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

### Session Chair

**Dr. Dong Yang**

Associate Head of the Department of Logistics and Maritime Studies,  
The Hong Kong Polytechnic University, Hong Kong SAR, China

- 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 o 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, AASTMT

- 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 Din 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**  
**Eng. 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**





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# 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, The Hong Kong Polytechnic University, Hong Kong SAR, 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**





# Closing Session

## Chairman

**Prof. Ismail Abdel Ghafar Ismail Farag**

**Conference Chairman**

- 15:10 Keynote Speech:**  
**Prof. Ismail Abdel Ghafar Ismail Farag**
- 15:20 Proposed Recommendations**  
**Prof. Yousry El Gamal**  
**Head, Conference Technical Committee**
- 15:30 Best Paper Award**
- 15:40 Recognition**
- 15:50 Lunch**

**See you in MARLOG 14**