The International Maritime Transport & Logistics Conference

MARLOG 14

Artificial Intelligence Implementations

Towards Shaping the Future of the Digital World

Program

23 – 25 February 2025

Sunday, 23rd February 2025

Translation Available

Opening Session

10:00 Opening Address

##### Prof. Akram Soliman Elselmy

**Head of the Conference Organizing Committee**

##### Prof. Ismail Abdel Ghafar Ismail Farag

**Conference Chairman**

**President, AASTMT**

#####  H. E. Ambassador Ali bin Ibrahim al-Malki,

##### Assistant Secretary-General

##### Head of the Economic Affairs Sector in the Arab League

##### H. E. Vice Admiral. Osama Rabie

**Chairman and Managing Director, Suez Canal Authority**

##### H. E. Vice Admiral. Ahmed Khaled Hassan Said

**Alexandria Governor**

##### H.E. Lieutenant General Kamel Al-Wazir

**Minister of Transport**

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| **11:00** | Recognition of Instrumental Figures |
| **11:15** | Signing a memorandum of understandings |
| **11:30** | Opening of the International Maritime Technology Exhibition (MarTech 2025)  |
| **12:30** | Coffee Break |

Translation Available

Session 1

#### Driving Economic Growth in the Maritime Sector Using Technological Innovation

**Session Chair**

**Dr. Babak Banijamali**

**Vice-Chairman of Maritime Navigation Commission (MarCom)**

 **PIANC, Belgium**

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| **13:00** | **The Digital Transformation and its Impact on Maritime Transport Geoeconomy, Case study:** **DCHC as a Hub Terminal in Damietta Port/Egypt/East Mediterranean****Admiral Dr. Rafik Galal Ibrahim and Ahmed Abbas Badie Eltobshy**Chairman, Damietta Container and Cargo Handling, Damietta, Egypt. |
| **13:15** | **The application of AI in the Port Management: The case of Algeciras Port.****Mr. Gerardo Landaluce** Chairman of the Algeciras Bay Port Authority,Vice President of MEDPorts Association, Spain. |
| **13:30** | **Technological Innovation in Ports: A Catalyst for Economic Growth”****Mr. Pino Musolino**President, MEDPorts Association President and CEO, North Central Tyrrhenian Sea Port Authority - Ports of Rome, Italy. |
| **13:45** | **Technological Innovation and Economic Growth in the Port of Valencia: Challenges and AI Projects in the Port Environment"****Mr. Javier Cubas Rodríguez**Senior Port Cluster Development Consultant, Valencia Port Foundation, Valencia, Spain |
| **14:00** | **Session Discussion**  |
| **14:15** | **Break** |

Translation Available

Session 2

**Smart Port Solutions Through Digitalization, AI, and Sustainable Practices**

**Session Chair**

**Prof. Ismail Abdel Ghafar Ismail Farag**

**President, AASTMT**

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| **14:45** | **The Future of Mobility: Pathways to Sustainable and Smart Transport** **Prof. Alexandros Nikitas**Professor, Sustainable Transport Futures, Future Mobility Centre, Huddersfield Business School, University of Huddersfield, UK |
| **15:00** | **Navigating Complexity: Harnessing the Power of Emerging Technologies in a Port Environment****Mr. Danny Van Dessel,** Digital Transformation Manager, Port of Antwerp, Antwerp, Belgium. |
| **15:15** | **Envisioning Ports as Smart Grid: Optimization of the Energy Infrastructure for a Sustainable Growth of the Maritime Sector****Prof. Lina Montuori**Applied Thermodynamics Department of the Polytechnic University of Valencia, Spain**.** |
| **15:30** | **Session Discussion**  |
| **16:00** | **Lunch** |

**Chairman, MARLOG Conference**

The International Maritime Transport & Logistics Conference

MARLOG 14

Artificial Intelligence Implementations

Towards Shaping the Future of the Digital World

DAY 2

**Monday, 24th February** 202**5**

Translation Available

Session 3 A

**The Role of AI in Enhancing Maritime Efficiency and Sustainability:**

**A Multi-Disciplinary Approach**

**Session Chair**

**Prof. Alexandros Nikitas**

**Professor, Sustainable Transport Futures,**

**Future Mobility Centre, Huddersfield Business School,**

**University of Huddersfield, UK**

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| **09:00** | **A Proposed Workflow to Fostering Academic Teaching Practices Using Generative AI Chatbots: Marine Electrification as a Guide Course Example****Prof. Hamdy Ahmed Ashour**Professor, Electrical and Control Engineering Department, College of Engineering and Technology, AASTMT, Egypt. |
| **09:15** | **Application of AI in Logistics Training, Education, and Skill Development****Mr. Eduard Rodes**Director, Escola Europea for Intermodal Transport, Spain. |
| **09:30** | **Empowering Maritime Training with AI: How Maritime Trainer Leverages Artificial Intelligence****Eng. Aashish Puri** Chief Revenue Officer, Maritime Trainer Institute and Simulator Center, Turkey. |
| **09:45** | **Comparative Study for Training Using Virtual Reality Simulating and Conventional Firefighting****Prof. Alaa Morsy, Eng. Mohamed Abdelaziz and Dr. Mona M. Awad**Head, Scientific Research Department, Port Training Institute, AASTMT. |
| **10:00** | **Enhancing Connectivity and Sustainability: Leveraging AI in Passenger Terminals of Port Cities in Egypt**. **Dr. Nader Gharib, Dr. Mo’men Abdelqader, and Dr. Hager Mohamed**Assistance Professor, Sustainable Environmental Architecture, College of Engineering & Technology, AASTMT, Egypt. |
| **10:15** | **Session Discussion**  |
| **10:30** | **Coffee Break** |

Session 3 B

#### Building Resilient Maritime Supply Chains: The Role of AI

**Session Chair**

**Mr. Pino Musolino**

 **President, MEDPorts Association**

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

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| **09:00** | **AI and Technology-Enabled Supply Chain Security****Prof. Puay Guan Goh, Mr. Hee Lye Jason Teo, Mr. Rong Sheng Lim and Ms. Syahirah Muyassarah Binte Aziz**NUS Business School, Department of Analytics and Operations Academic Director, MSc Industry 4.0, Track Leader, Centre for Maritime Studies National University of Singapore, Singapore |
| **09:15** | **Blockchain Adoption for Mitigating Maritime Supply Chain Disruptions:** **Challenges and Opportunities** **Dr. Mahira Abdel-Shafie, and Dr. Yasmine Rashed**Logistics and Supply Chain Management Program, College of Administrative Sciences,Galala University, Egypt. |
| **09:30** | **Establishment an Amazon Hub in Oman****Ms. Jumana Al Hadadi, Dr. Mehdi Kamran and Dr. Khaled S Abdallah**Department of Logistics, Tourism, and Services Management, German University of Technology in Oman, Oman |
| **09:45** | **Enhancing Supply Chain Resilience Through AI Chatbot Service Quality****Dr. Ashrakat Osama, and Prof. Khaled Elsakaty**Assistant Lecturer, College of International Transport and Logistics, Smart Village, Arab Academy for Science, Technology, and Maritime Transport, Egypt. |
| **10:00** | **Session Discussion** |
| **10:30** | **Coffee Break** |

Translation Available

Session 4 A

Data-Driven Insights in Maritime Engineering:

Utilizing AI and Advanced Modeling

**Session Chair**

**Prof. Nikitas Nikitakos**

**Professor of Shipping Informatics and New Technologies,**

**Department of Shipping Trade and Transport, University of the Aegean, Greece**

**Visiting professor, World Maritime University, Sweden.**

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| **11:15** | **Integrating Continuous Pollutant Measurements with Time-Lapse Photography to Evaluate Inland Vessel Surroundings' Influence on Wheelhouse Indoor Air Quality****Dr. Olivier Schalm**Antwerp Maritime Academy, Antwerp, Belgium. |
| **11:30** | **A Study of Passive Flow on NATO-GD Ship Model AIRWAKE Using Computational Fluid Dynamics** **Eng. Abd Elmenaim H. Alaktaa, Eng. Salaheldin A. Mohamad, Dr. Ahmed S. Shehata,** **and Dr. Khaled Elsherbiny**Assistant Professor, Marine and Offshore Engineering Department, College of Engineering and Technology, AASTMT, Alexandria, Egypt |
| **11:45** | **Optimizing the Draft of a Quay Wall to the Anchor Length Ratio Using Finite Element Numerical Model****Eng. Omar Kamel,** **Prof. Tareq Mostafa, Prof. Akram Soliman, and Prof. Maysara El-Tahhan**Teaching Assistant, Building and Construction Engineering Department, College of Engineering and Technology, AASTMTSenior Geotechnical Engineer, CMC Engineering Office, Alexandria, Egypt. |
| **12:00** | **A Parametric Analysis to Investigate the Soil-Structure Interaction on Quay Walls Using Finite Element Modeling**Prof. Alaa M. Morsy, Prof. Akram Soliman Elselmy, and Eng. Amany S. RamadanSenior Maritime Civil Engineer, M.Sc. Student, College of Engineering and Technology, AASTMT |
| **12:15** | **Behavior of Footing Group Resting on Collapsible Soil Based on Experimental and Numerical Study****Prof. Tareq Abdelaziz, Dr. Ashraf Nazir, Dr. Ahmed Ragheb and Eng. Gehad Saad**Structural Engineer, Ph.D. Student, College of Engineering and Technology, AASTMT, Alexandria, Egypt. |
| **12:30** | **Session Discussion** |
| **12:45** | **Break** |

Session 4 B

**AI and Sustainability in Maritime:**

**Exploring Innovations in Ports, Waterways, and Coastal Zones**

**Session Chair**

**Prof. Lina Montuori**

**Applied Thermodynamics Department, Polytechnic University of Valencia, Spain**

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| **11:15** | **Unlocking AI: Navigating Challenges in Ports and Waterways****Prof. Mark Van Koningsveld**Professor, Ports and Waterways, Faculty of Civil Engineering and Geosciences,Delft University of Technology, Netherlands. |
| **11:30** | **Navigating the Future of Inland Waterways: Embracing Unmanned Barges and AI Technologies****Mr. David Edwards-May**Former President, Managing Editor, Membership Secretary, IWI, France. |
| **11:45** | **Dynamics of Oscillating Turbulent Flow Over Coastal Buildings in Ports Using AI Techniques****Eng. Miral Michel, Eng. Adham Eladly, Eng. Shehab Mostafa, Eng. Gerges Refaat, Eng. Belal Tarek, Eng. Mohamed Hussein Shokry, Eng. Mahmoud Ismail, Eng. Ibraheem Gamal and Dr. Ahmed S. Shehata**.Marine and Offshore Engineering Department, College of Engineering and Technology, AASTMT, Alexandria, Egypt. |
| **12:00** | **An Integrated Approach to Assess Lee Side Erosion in Rubble Mound Groin Systems: A Case Study****Eng. Donna Alaa Ayad Habib, Dr.Youssef Khairy and Prof. Akram Soliman**Ms.c Student, College of Engineering and Technology, AASTMT.Coastal Engineering Company, Dubai. |
| **12:15** | **Session Discussion** |
| **12:45** | **Break** |

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Session 5 A

#### The Evolving Port: Addressing Climate Change, Energy Transition, and Technological Advancements

**Session Chair**

**Prof. Ahmed Amin**

**Professor, Civil Engineering Department, Suez Canal University**

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| **13:15** | **Can AI Address the Shortcomings of the Current Port Emissions Inventory Practices?****Ms. Flóra Zsuzsanna Gulyás**Research Associate, Institute of Shipping Economics and Logistics, Bremen, Germany |
| **13:30** | **Digitalization of Marine Power Sources: From Theory to Practice** **Eng. Giuseppe Giannino, Dr. Francesco Maione, Dr. Guido Maione and Dr. Paolo Lino** Electronic and Telecommunication Engineer, the Innovation and Development Centre, Isotta Fraschini Motori Company, Italy. |
| **13:45** | **A Comparative Analysis Between Wave and Solar Energy for Sustainability in Coastal zones; Case Study: Alexandria Port, Egypt****Prof. Wael A. Kamel, Dr. Youssef M. Khairy, Prof. Ahmed M. A. Moussa and Eng. Youssef A. Ebeid**M.Sc. Student, College of Engineering and Technology, AASTMT.Planning Engineer, MBL, Jeddah, Kingdom of Saudi Arabia. |
| **14:00** | **Emission Reduction Using Ammonia/Diesel Dual Fuel for Marine Diesel Engines in Green Port Application** **Eng. Miral Michel, Eng. Abdallah Ahmed, Eng. Mohamed Omran, Eng. Farida Sharkas, Eng. Abanoub Youssif, Prof. Akram Soliman and Dr. Ahmed S. Shehata**Marine and Offshore Engineering Department, College of Engineering and Technology, AASTMT, Alexandria, Egypt. |
| **14:15** | **Session Discussion**  |
| **14:45** | **Lunch** |

Session 5 B

**Sustainable Port Development in Egypt:**

**Case Studies on Green Hydrogen, Smart Port Operations, and Transportation Optimization**

**Session Chair**

**Prof. Khaled Elsakaty**

**Dean, College of International Transport and Logistics, AASTMT**

**Cairo, Egypt**

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| **13:15** | **Environmental Impact of Intelligent Transportation Schedule for Electric Vehicle in Al-Sokhna Port** **Dr. Shahira I. Karbouna, Dr. Noha H. El-Amary and Dr. Islam** **S. Elhosin**Assistant Professor, College of International Transport and Logistics (CITL), AASTMT, Cairo, Egypt. |
| **13:30** | **Analyzing the Implementation of Terminal Operating System on Enhancing the Efficiency of Alexandria Container Terminal****Prof. Islam Elnakib and Dr. Ahmed Ismail**Dr. Ahmed Ismail Ahmed Hafez, Institutional Research DepartmentArab Academy of Science, Technology & Maritime Transport, Egypt., AASTMT |
| **13:45** | **A Proposed Technique for Producing Green Hydrogen, in a suggested Hydrogen Supply Center at Alsokhna, Gulf of Suez****Dr. Ayman El – Nahrawy and Mr. Mohamed Safwat**Head, Ports and Logistics Programs, Port Training Institute, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt  |
| **14:00** | **Proposing a Framework for Establishing a Green Energy Logistic Hub: An Empirical Study in Egypt****Capt. Shady Magdy Mahmoud, Dr. Mostafa Abdel Geliel, and Prof. Sara El Gazzar**PhD student, Maritime Postgraduate Studies Institute, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt. |
| **14:15** | **Session Discussion**  |
| **14:45** | **Lunch** |

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DAY 3

**Tuesday, 25th February** 202**5**

Translation Available

Session 6 A

#### Smart Energy Solutions for Maritime Growth:

#### Optimizing Port Infrastructure

**Session Chair**

**Prof. Holmer Savastano Junior**

**Full Professor, University of São Paulo, Brazil**

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| **09:00** | **AI-Driven Optimization of Hydrogen and Methane Fuel Strategies for Sustainable Maritime Decarbonization****Eng. Ali Salah, Dr. Adel A. Banawan, Prof. Amira Zaki, and Dr. Ahmed S. Shehata**Marine Consultant, PhD Candidate, College of Engineering and Technology, AASTMT |
| **09:15** | **Seanergy Project Master Plan for Port Energy Transition****Dr. Anas Saleh Mohammad Alamoush and Dr. Fabio Ballini** **and Dr. Monica Canepa**Research Associate, Maritime Energy Management, World Maritime University, Sweden. |
| **09:30** | **Improving the Energy Efficiency of Port Facilities and Their Sustainable Development Using Solar Energy: Evidence from Romania****Dr. Laura-Alexandra Doroftei and Prof. Gheorghe Militaru**Professor, Management and Industrial Engineering, University POLITEHNICA of Bucharest, Romania. |
| **09:45** | **Layout Optimization for Offshore Wind Farms Construction in Egypt: Achieving Maximum Energy Efficiency****Eng. Abdallah M. Gobara, Dr. Elbadr O. Elgendi, Prof. Akram S. Elselmy, and Dr. Ahmed. S. Shehata**Proposals Engineer, Leading Construction Consultancy Firm,Teaching Assistant at the Arab Academy for Science, Technology, and Maritime Transport, Alexandria, Egypt. |
| **10:00** | **Session Discussion**  |
| **10:15** |  **Coffee Break** |

Session 6 B

#### Advances in Maritime Engineering:

#### From Simulations to AI-Driven Solutions

**Session Chair**

**Prof. Roberto Revetria**

**Professor of Mechanical Engineering, University of Genoa, Italy.**

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| **09:00** | **The Opportunity of a Benchmarking Tool for Obstacle Avoidance in Autonomous Shipping****Dr. Kuderna-Iulian Benta, and Prof. Dana-Corina Deselnicu** Assistant Professor, Department of Computer Science, Faculty of Mathematics and Informatics Babes-Bolyai University, Cluj-Napoca, Romania. |
| **09:15** | **Enhancing Maritime Search and Rescue (SAR) Operations Using UAV-Based Flight Control Systems: Opportunities, and Challenges****Capt. Eslam Ramadan Badry** **and Mr. Moaaz Noureldin**Lecturer, Basic Nautical Studies, College of Maritime Transport and Logistics, AASTMT. |
| **09:30** | **Enhancing Maritime Safety: Optimizing Fairway Design Through Multi-Arc Configurations****Eng. Miral Michel, Eng. Gerges Refaat Fawzy, Eng. Youssef Wael Hamed, Eng. Zeyad Eng. Ayman Soliman, Eng. Mohamed Elnegouly, Dr. Ahmed Mehanna, and Dr. Ahmed S. Shehata**Student, Marine and Offshore Engineering, College of Engineering and Technology, AASTMT, Alexandria, Egypt. |
| **09:45** | **Utilizations of Mobile Applications in Maritime Search and Rescue Operations****Ms. Nahed Mohamed Reyad Hashesh, Mr. Mohamed Anwar Eldwaik, Dr. Karim Mohamed Aboul-Dahab, Mr. Hussein Elsherif Hussein**Senior Specialist, Maritime Telecom ServicesThe National Telecom Regulatory Authority, Egypt. |
| **10:00** | **Session Discussion**  |
| **10:15** |  **Coffee Break** |

Translation Available

Session 7A

#### The Impact of AI on Society and the Maritime Sector:

#### Ethical Considerations, Leadership, and Intellectual Property,"

**Session Chair**

**Prof. Yousry Elgamal**

**Chairman, IT Committee, National Council of Education, Culture, and Science**

**(UNESCO, ISESCO, ALECSO)**

**Former Minister of Education**

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| **10:45** | **AI and Big data at Sea: Their Potential Impacts on Seafarers****Dr. Khanssa Lagdami and, Dr. Eslam Ramadan Badry Gad** Associate Professor of Maritime Labour Law and Policy (ITF Seafarers Trust), World Maritime University, Sweden. |
| **11:00** | **Ethical Dilemmas of Using Artificial Intelligence for Leadership Improvement****Prof. Liliana M. Rogozea, Prof. Florin G Leașu, and Prof. Angela Repanovici** Vice-Rector, Public Relations and University Image, Transylvania University of Brasov, Romania. |
| **11:15** | **How to Consider Industrial Property and Patents When Using Artificial Intelligence for Creation****Prof. Călin Roșca, and Prof. Angela Repanovici**Dean, Mechanical Engineering Faculty, Transylvania University, Romania. |
| **11:30** | **Industrial Property of Patents Generated by Artificial Intelligence: A Scientometric and Qualitative Analysis** **Prof. Angela Repanovici, and Ms. Gabriela Ivanus** Faculty of Product Design and Environment, Transylvania University of Brasov,President, Information Literacy Section, Romanian Library Association, Romania. |
| **11:45** | **Session Discussion** |
| **12:15** | **Break** |

Session 7B

**Navigating the Next Wave:**

**AI and Industrial Shifts in the Maritime Sector**

**Session Chair**

**Dr. Mohi El Din Mohamed El Sayeh**

**Dean, College of Maritime Transport and Technology**

**MARLOG Conference Organizing Committee member**

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| **10:45** | **Port Industry Perception on the Use of Artificial Intelligence. The Case of Greek Ports****Dr George Vaggelas and Dr Kassiani Stathaki**Department of Port Management and Shipping, National and Kapodistrian University of Athens, Greece. |
| **11:00** | **GenAI in Bridge’s Ship Operation****Prof. Nikitas Nikitakos, and Dr. Dimitrios Papachristos and Dr. Sofia Kallou**Professor of Shipping Informatics and New Technologies,Department of Shipping Trade and Transport, University of the Aegean, Greece.Visiting professor, World Maritime University, Sweden. |
| **11:15** | **New Challenges for a Low-Carbon Future: A Materials Perspective****Dr. Ana Carolina Constâncio Trindade, Dr. Adriano Galvão de Souza Azevedo, Dr. Leo Maia do Amaral, and** **Prof. Holmer Savastano Junior** Full Professor, University of São Paulo, Brazil. |
| **11:30** | **Industrial Relocation of Manufacturing Companies** **Prof. Dana Corina Deselnicu, Dr. Beatrice Alexandra Lupu, Prof. Frank Bezzina, and Dr. Sandra Samy George Haddad** Director of the Doctoral School of Entrepreneurship, Business Engineering and Management, University POLITEHNICA of Bucharest, Romania. |
| **11:45** | **Session Discussion** |
| **12:15** | **Break** |

Translation Available

Session 8

#### Supply Chain Transformation:

#### Leveraging Technology for Resilience, Efficiency, and Sustainability"

**Session Chair**

**Prof. Sara Elgazzar**

**Dean, College of International Transport and Logistics, Alexandria**

**MARLOG Conference Organizing Committee member**

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| **12:30** | **Building Resilient Maritime Supply Chains Through Mediterranean Ports** **Mr. Jordi Torrent** Head of Strategy, Port of Barcelona,MEDPorts Association Secretary General, Barcelona, Spain. |
| **12:45** | **Analyzing Vulnerabilities in the Oil and Gas Supply Chain of Oman via FMEA****Dr. Waad Al Balushi, Dr. Mehdi Kamran, and Dr. Khaled S. Abdallah,**Logistics and Supply Chain Management, College of International Transport and Logistics, Arab Academy for Science Technology and Maritime Transport, Cairo, Egypt. |
| **13:00** | **Integrating Simulation and Optimization for Sustainability Assessment in Complex Supply Chains: A Unified Framework with AI****Eng. Anastasiia Rozhok, Eng. Khursheed Ahmad and Prof. Roberto Revetria,**Department of Mechanical Engineering, University of Genoa, Genoa, Italy. |
| **13:15** | **Unlocking the Future: How Blockchain Influences Sustainable Supply Chain Performance:** **An Empirical Study on the Maritime Industry** **Dr. Miran I. Hussien, Dr. Randa F. Talaat, and Dr. Ayat Y. Moustafa**Business Information Systems (BIS) Department, College of Management and Technology,AASTMT, Alexandria, Egypt. |
| **13:30** | **Session Discussion**  |
| **13:45** | **Break** |

Closing Session

#### Chairman

##### Prof. Ismail Abdel Ghafar Ismail Farag

**Conference Chairman**

 **14:00 Keynote Speech:**

 **Prof. Ismail Abdel Ghafar Ismail Farag**

 **Chairman, Conference**

 **President, AASTMT**

**14:30 Proposed Recommendations**

**14:45 Best Paper Award**

**15:00 Recognition**

**15:30 Lunch**

See you in MARLOG 15

2026