

# Emerging Technologies, Digital Awareness and Cybersecurity in Shipping

30 Apr. - 1 May 2024

10.00 - 13.00 EEST

## WEBINAR

Addressed to deck and engine officers, port workers and administrators and office personnel of HELMEPA Member companies

Learning level: Beginners to Intermediate

Supported by

 **metavasea**

This webinar is part of project METAVASEA (2023-2028), which is coordinated by HELMEPA along with 6 partners and 12 associate partners in Greece and Cyprus, with the kind support of Lloyd's Register Foundation (LRF)\*. For more information, please visit [www.helmepa.gr/metavasea](http://www.helmepa.gr/metavasea)

(\*) Lloyd's Register Foundation is an independent global charity that supports research, innovation, and education to make the world a safer place. Its mission is to use the best evidence and insight to help the global community focus on tackling the world's most pressing safety and risk challenges. For more information, please visit [www.lrfoundation.org.uk](http://www.lrfoundation.org.uk)

### Day 1

- 10.00 - 11.30 **Changing the Mindset to Embrace Emerging Technologies**  
Oriani
- 11.30 - 11.45 **Break**
- 11.45 - 12.45 **Emerging Technologies, Progression Autonomy and the Law of the Sea**  
World Maritime University
- 12.45 - 13.00 **Q&As/Wrap up/Closure**

### Day 2

- 10.00 - 11.30 **Cybersecurity awareness (part I): tools and best practices to minimize cyber threats**  
Oriani
- 11.30 - 11.45 **Break**
- 11.45 - 12.45 **Cybersecurity awareness (part II): effective SMS policies to address cyber risks ashore and on board per ISM Code**  
Danaos Shipping
- 12.45 - 13.00 **Q&As/Wrap up/Closure**



MARITIME TRAINING CENTER  
for Pollution Prevention  
Safety at Sea and  
Environmental Awareness

2024

REFRESHER TRAINING PROGRAM  
**From our members for our members**





**Philip Nielsen**

Co-founder  
Oriani

Philip Uhrskov Nielsen is a multilingual and multicultural European. Born in Denmark, educated in England, working from Greece over the last 14 years in the Maritime sector. He has worked with large multinationals across various industries and geographical locations. He is passionate about using technology to address business challenges and has created various start-ups. In 2018 he co-founded Oriani Hellas a company riding on the wave of Maritime Digital Transformation, assisting shipping companies in their exciting digital transformation journey. Today he works with a number of vendors that offer digital and AI powered solutions aiming to increase operational efficiency and safety of forward-thinking shipping companies. He is an active member of various business associations and maritime clubs, frequently invited as a speaker in international conferences, if he is not out running or skiing on mountains.



**Dr. Tafsir JOHANSSON**

Assistant Professor  
World Maritime University

Tafsir is an Associate Research Officer at the World Maritime University- Sasakawa Global Ocean Institute (GOI). His duties include ocean governance and ocean policy research (including those that have been funded by Transport Canada) and teaching, and developing innovative statistical and mathematical models to better assess drivers and indicators relevant to ocean research agenda. He is currently acting as Co-PI (on behalf of the GOI) on a European Union Horizon 2020 Funded Project (under grant agreement No. 871260) titled BUGWRIGHT2: Autonomous Robotic Inspection and Maintenance on Ship Hulls.



**Dr. Aspasia PASTRA**

Assistant Professor  
World Maritime University

Aspasia has been appointed as a Post-Doc Fellow and Maritime Policy Analyst at the World Maritime University in Malmö, Sweden. To date, Dr. Pastra has been involved in a number of State-of-the-Art Regulatory Projects in maritime policy, environmental protection, ocean technology and port governance, including those that have been funded by the government of Canada. Dr. Pastra has published extensively in the field of Corporate Social Responsibility, Maritime Robotics and techno-regulatory advancements, trustworthy Remote Techniques and global environmental change (GEC).



**Alex STATHOPOULOS**

IT Manager  
Hellas Confidence  
Shipmanagement S.A.

Alex joined the ICT Shipping industry in 2005. Currently with 17 years of experience, as an IT Manager with Hellas Confidence Shipmanagement S.A., he is responsible for the daily support of the fleet in IT/OT matters along with the management of enhancement or regulation-driven IT projects and the IT infrastructure of the company's premises. Holds an MSc from the University of Piraeus in the field of network-centric systems along with CCNA and CEH certifications.



**Capt. Nikolaos POLYMERIS**

Deputy Training Manager  
HR & Training Department  
Danaos Shipping Co. Ltd.

Nikolaos started working at Sea in 1998, HELMEPA Member since 2004, 2 years experience as a Master on Containerships (Danaos Shipping Co), 5 years a SOE/Marine Superintendent in (Eastern Mediterranean Maritime), 4 Years a Deputy Training Manager in (Danaos Shipping Co), Pgd in Executive Maritime Management at WMU. He is the current President of the HELMEPA Training Committee.





## Webinar Learning Objectives | Outline

### Changing the Mindset to Embrace Emerging Technologies

- This seminar will point out some of the key applications of emerging technologies and discuss the benefits they produce.
- It will also touch on the difficulties we humans have in change and give specific examples on how to facilitate the change of mindset in the Maritime Digital Transformation era.

#### Learning Objectives:

- Increase awareness of Maritime Digital Transformation.
- Give participants some practical guidance of how to become part of this change.

### Emerging Technologies, Progression Autonomy, and the Law of the Sea

- Introduction: 4th Industrial Revolution;
- Synthesis: Impacts of Emerging Technologies in the Maritime Domain;
- Redux: Take-aways from "Autonomous Vessels" & Corresponding Regulatory Developments;
- Touch-base: Law of the Sea Nexus
- Silence of the Sentinels: Niche technologies for Vessel Hull Inspection & Maintenance
- Highlights on Critical Developments: Remote Inspection during Pandemic
- Lessons Learned: BUGWRIGHT2 Disruptive Technologies (Trust, Liability & Degrees of Autonomy)
- Conclusions: Unleashing Full Potential for Techno-Regulatory Balance

#### Learning Objectives

- Participants will be able to evaluate the role of competent international organizations in current regulatory developments;
- Participants will be able to assess emerging technologies with crucial insights from a Triple Helix perspective (academia-industry-government);
- Participants will be able to identify stakeholders, crucial bottlenecks as well as solutions that could optimally pave the best way forward for a good techno-regulatory balance
- Participants will have the opportunity to brainstorm through out-of-the-box polling questions; and
- Based on presentation and self-analysis, participants will be able to interpret the trajectory of emerging technologies in the maritime domain.

### Cybersecurity awareness (part I): tools and best practices to minimize cyber threats

- Identifying and mitigating cyber risks in daily vessel operations
- Emerging cyber threats and technologies in the maritime industry: Attendees will gain insight into the latest cyber threats and trends affecting the maritime industry, such as the use of IoT devices and the increasing prevalence of ransomware attacks, as well as new technologies and strategies for mitigating these risks
- Learning Objectives:
- Participants will learn best practices for securing shipboard systems against cyber attacks and training crew members on cyber security awareness
- Attendees will gain an understanding of the regulatory requirements for maritime cyber security and the potential consequences of non-compliance

### Cybersecurity awareness (part II): effective SMS policies to address cyber risks ashore and on board per ISM Code

The main purpose of this presentation is the demonstration of the Cyber Security Resources and practices for a safe operation and Cyber environment.

#### Learning Objectives:

- Description of Cyber Security Management
- Documentation & Risk Assessment
- Roles, Responsibilities & Cyber Security Awareness
- Asset Management / Access Control
- Physical Access, Operations, Communications Security
- System Acquisition, Development & Maintenance
- Security Incident Management & Compliance

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