HELMEPA ACADEMY

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WEBINAR **27 November 2025 | 10:00 - 12:00 EET**

Cyber-Defense Strategies & Applied AI in Maritime Operations

10.00 - 11.00	**Cybersecurity Incidents in the Maritime & Shipping Industry and Defensive Approaches** Microsoft
11.00 - 11.10	Break
11.00 - 11.50	**Empowered Implementation Solutions Onboard using AI Toolkit** Danaos Research Center
11.50 - 12.00	Q&A

Addressed to crew officers (deck & engine) and office personnel of HELMEPA Member companies

Level of knowledge

Beginner to Intermediate

Participants will receive a HELMEPA Academy Certificate of Attendance

2025 REFRESHER TRAINING PROGRAM

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WEBINAR OUTLINE | LEARNING OBJECTIVES

Cybersecurity Incidents in the Maritime & Shipping Industry and Defensive Approaches

Upon completion of the session, the participants will be able to:

- Recognize the unique cyber risks in maritime operations.
- Understand why vessels, ports, and logistics systems are increasingly targeted and what makes maritime environments vulnerable.
- Learn practical cyber-defense strategies for shipping companies.
- Explore layered security approaches, IMO compliance requirements, and best practices for protecting operational technology (OT) and IT systems.
- Understand the role of AI in maritime cybersecurity.
- Discover how AI-powered threat detection, anomaly monitoring, and automated incident response can strengthen cyber resilience.
- Identify emerging trends and regulatory expectations.
- Gain high level overview of upcoming international cybersecurity regulations and how they impact shipping operations.
- Develop an actionable roadmap for implementation.
- Walk away with practical steps for integrating cyber-defense and AI-driven security tools into existing maritime workflows.

Empowered Implementation Solutions Onboard using AI toolkit

Upon completion of the session, the participants will be able to:

- Monitor energy efficiency and detect anomalies using machine learning, deep learning, gray-box modeling, and Internet of Things (IoT) technologies.
- Understand the applications of robotics, including autonomous drones and crawlers for inspection, maintenance, and safety operations.
- Optimize navigation and enhance decision-making through AI-powered systems, leveraging navigation assistance tools and Earth Observation data to improve situational awareness, reduce collision risks, and increase safety at sea.