



ΕΛ.Ι.Ν.Τ.

**ΕΛΛΗΝΙΚΟ ΙΝΣΤΙΤΟΥΤΟ ΝΑΥΤΙΚΗΣ ΤΕΧΝΟΛΟΓΙΑΣ
HELLENIC INSTITUTE OF MARINE TECHNOLOGY**



**2021
PROGRAMME**

ANNUAL CONFERENCE OF MARINE TECHNOLOGY

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2 DECEMBER 2021 *VIRTUAL

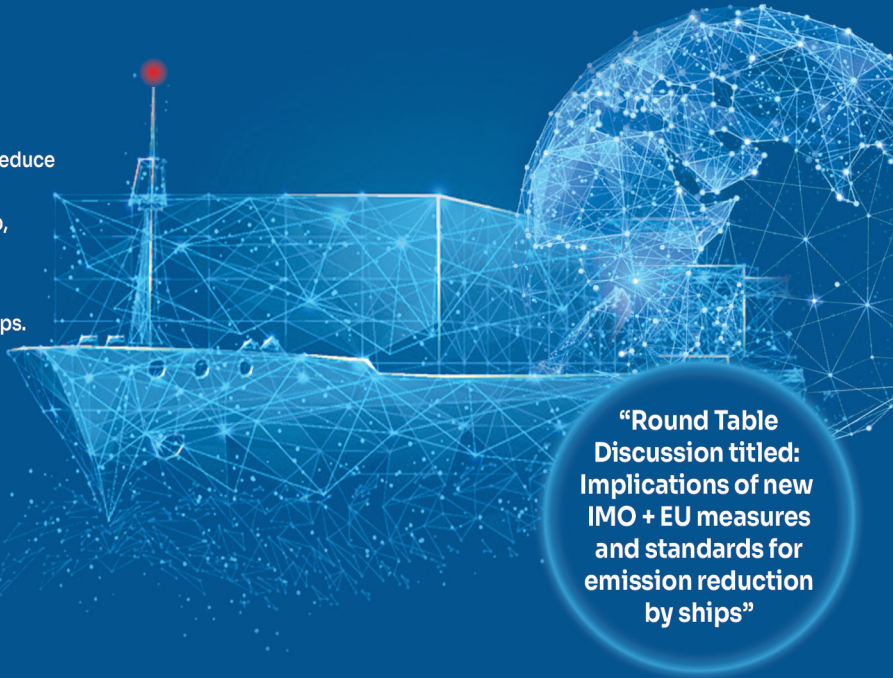
The Challenges of 2030. Technologies & Regulations



H.I.M.T.
HELLENIC INSTITUTE
OF MARINE TECHNOLOGY

TOPICS:

1. Design and operation of ships and offshore structures.
2. Autonomous ships and smart applications in the maritime industry: challenges and opportunities.
3. Recent and forthcoming guidelines of international organizations to reduce the emissions of the Green House Gases (GHG) and applications.
4. Management, evaluation and optimization of the operation of the ship, its subsystems and the port facilities.
5. Technologies and materials for enhancing maritime safety.
6. Novel technologies for the construction, conversion and survey of ships.
7. Innovative ship propulsion systems.
8. Improving the energy efficiency of ships.
9. New resources to supply energy to ships, including hybrid systems.
10. Methods for the remote inspection of ships
11. Scheduling of fleet maintenance and repair.
12. Examples of good practice for sustainable shipping.
13. Digitalization, digital data transfer, cybersecurity in shipping: challenges and opportunities.
14. Ship recycling: challenges and prospects.
15. Protection of the marine environment.



“Round Table Discussion titled: Implications of new IMO + EU measures and standards for emission reduction by ships”

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PROGRAMME

ANNUAL CONFERENCE OF MARINE TECHNOLOGY 2021

Thursday, 2 December 2021

09:00 - 09:05 **Welcome**

Chair: G. Vozikis, *G. Secretary of Hellenic Institute of Marine Technology*

Gr. Grigoropoulos, *Chairman of Hellenic Institute of Marine Technology*

09:05 - 09:30 **Opening Addresses**

I. Plakiotakis, *Ministry of Mercantile Marine and Insular Policy*

G. Alexandratos, *Vice-President of Hellenic Chamber of Shipping*

Ch. Simantonis, *Hellenic Shortsea Shipowners Association*

D. Monioudis, *International Association of Dry Cargo Shipowners*

L. Dimitriadis - Eugenides, *Chairman of the Eugenides Foundation & IMO Goodwill Maritime Ambassador representing Greece*

09:30 - 10:30 **Session 1**

Moderator: S.A. Zolotas, *RINA Hellas Ltd.*

Development of an intelligent marine engines health assessment system based on digital-twins and data-driven models

K.M. Tsitsilonis¹, G. Theotokatos², A. Coventry³

^{1,3}*Datum Electronics Ltd.*, ²*Univ. of Strathclyde*

An innovative way for monitoring and optimisation of energy resource management in commercial vessels

D.V. Lyridis¹, L. Nakos², G. Gardikis³, O. Tsouvalis⁴, G. Kougioumtzoglou⁵

^{1,4}*National Technical Univ. of Athens*, ^{2,5}*Hydrus Engineering S.A.*, ³*Space Hellas S.A.*

A comparison study of ship fuel oil consumption based on theoretical and data-driven models

Z. Zervos, N. Themelis

National Technical Univ. of Athens

10:30 - 11:30 **Session 2**

Moderator: N. Themelis, *National Technical Univ. of Athens*

Redesigning mega containerhips to accommodate cargo handling from both sides: a techno-economic study

L.N. Tsaganos¹, V.W. Nevsimal², N. Tsouvalis³, D.V. Lyridis⁴

^{1,3,4}*National Technical Univ. of Athens*,

²*International Engineering and Project Management Consultant*

Mixed-fidelity design optimization of hull form using CFD and potential flow solvers

G. Grigoropoulos, G. Papadakis, C. Bakirtzoglou, D. Ntouras

National Technical Univ. of Athens

Mean second order wave drift forces and wave drift damping in a floating wind turbine structure

Th. P. Mazarakos¹, S.A. Mavrakos²

¹*Univ. of West Attica*, ²*National Technical Univ. of Athens*

11:30 - 11:40

Break

11:40 - 12:30

Session 3

Technical presentations

Moderator: A. Vamvakaris, *Vamuaship Maritime S.A.*

Setting the course to low carbon shipping- regulatory challenges

M. Kyratsoudi, *ABS*

Maritime forecast to 2050

I. Stefanatos, *DNV HELLAS S.A.*

Overview of mooring equipment guidelines 4th edition, according to OCIMF & technological developments in the construction of marine ropes

A. Morozinis, *Katradis Marine Ropes IND S.A.*

General thoughts about the future advantages of choosing electric energy over conventional methods

D. Lamprinakos, *Marichem Marigases Worldwide Services*

12:30 - 13:30

Session 4

Moderator: A. Syrigos, *ex- Commandant of HCG*

Automated Lifeboat Manifesting Embarkation System (ALMES): The utilization of RFID/NFC in passenger manifestation during ship evacuation

A. Andreadakis¹, T.F. Sloane², A. Dalaklis³, N. Nikitakos⁴

^{1,2}*World Maritime Univ.*, ³*Henley Business School*, ⁴*Univ. of the Aegean*

Mass evacuation of large passenger ships: a state-of-the-art analysis- setting the foundations for the intelligent evacuation ecosystem PALAEMON

A. Koimtoglou, K. Louzis, A. Michelis, M. Koimtoglou

National Technical Univ. of Athens

Maritime education 4.0: The impact on maritime digital transformation and autonomous ship technologies

G. Sarantopoulos¹, D. Papachristos², N. Nikitakos³

¹*Univ. of West Attica*, ^{2,3}*Univ. of the Aegean*

13:30 - 14:00

Lunch break

14:00 - 15:00

Session 5

Moderator: P. Yannoulis, *Oceanking Technical & Trading S.A.*

Statistical and spatial analysis of groundings in Greek waters

N. Ventikos, A. Ramos, A. Koimtoglou, E. Trifonopoulos, E. Samuelides

National Technical Univ. of Athens

Development of an optical sensor for assessing the quality of diesel fuels

I. Dermentzoglou¹, Ch. Spandonidis², N. Vordos³, N. Galiatsatos⁴

^{1,3}*International Hellenic Univ.*, ^{2,4}*Prisma Electronics*

Challenges and advantages for conducting and maintaining a proper inventory of hazardous materials (IHM)

K. Galanis, *International Ship Recyclers Association*

15:00 - 15:30

Session 6

Technical presentations

Moderator: Ch. Georgousopoulos, *Ariston Navigation Corp.*

Service agreements and Condition monitoring, basic tools for minimizing maintenance costs and optimizing operation of machinery equipment

D. Zambetakis, *Oceanking Technical & Trading S.A.*

The future is electric

A. Arvanitakis, *Phoenix Register of Shipping S.A.*

15:30 - 17:00

Session 7

Round Table Discussion

"Implications of new IMO + EU measures and standards for emission reduction by ships"

Moderator: H. Psaraftis, *Technical Univ. of Denmark*

S. Fradelos, *DNV HELLAS S.A.*

I. Kokarakis, *BV*

Ch. Kontorouchas, *Ministry of Mercantile Marine and Insular Policy*

T. Koutris, *Roxana Shipping S.A.*

M. Synefias, *Pleiades Shipping Agency S.A.*

A. Trakakis, *RINA Hellas Ltd.*

17:00 - 17:45

Session 8

Technical presentations

Moderator: N. Liapis, *ELINOIL S.A.*

Cybersecurity focus in a fast changing digital environment

M. Vrettos, *RINA HELLAS S.A.*

Robotic application in proactive hull cleaning - an energy saving device, for decarbonizing shipping

D. Kyritsis, *Scruffy PC & D.Koliaroudakis, Technava S.A.*

Challenges of ammonia fueled ships and how to address them

V. Dimoulas, *BV*

NAVTOR performance and digital logbooks

V. Vakalopoulos, *NAVTOR*

How to prepare for CII with the VAF IVY Propulsion Performance Solution

E. van Ballegooijen, *VAF Instruments B.V.*

Wima's holistic approach on ships' conversions and repairs

H. Hatziefremidis, *WIMA*

Carbon capture and storage for the maritime industry and overview of lco2 carriers - technology and regulatory update

Th. Kourmpelis, *Lloyds Register S.A.*

17:45 - 18:25

Session 9

Moderator: D. Lyridis, *National Technical Univ. of Athens*

Business & data analytics in shipping sector a strategic choice for high performed ship operators

S. Meidanis, *Shipping Executive*

Anomaly detection: missing variable from cluster

D. Anagnostopoulos, D. Theodossiou

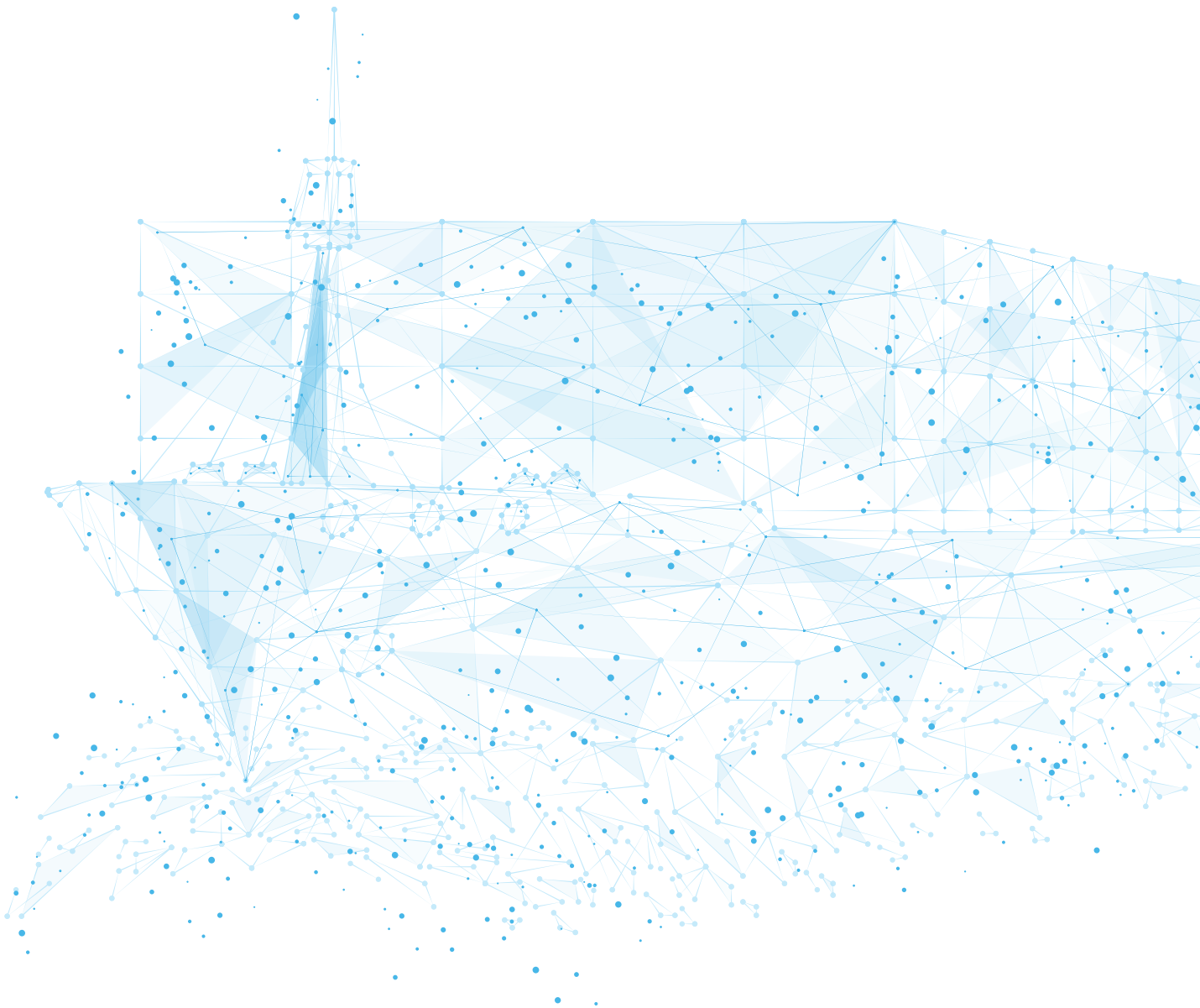
Danaos Management Consultants

18:25 - 18:30

Closing of the conference

Chair: G. Vozikis, *G. Secretary of Hellenic Institute of Marine Technology*

Gr. Grigoropoulos, *Chairman of Hellenic Institute of Marine Technology*





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