

# Hot Technical Topics for Modern Electro-Technical Officers (ETOs)

19 - 20 December 2023

10.00 - 14.00 EET

**2023**  
REFRESHER  
TRAINING  
PROGRAM

**From our  
members  
for our  
members**

## WEBINAR

Addressed to tanker and bulk carrier vessels'  
Electro-Technical Officers (ETOs)

### Schedule

#### Day 1

10.00 - 14.00 Using electrical drawings  
for troubleshooting & Troubleshooting  
of complex automation systems

Breaks | 11:20 - 11:30 and 12:50 - 13:00

14.00 Closure

#### Day 2

10.00 - 14.00 Using Industrial data communications,  
networks and telemetry system &  
Maintenance of the electrical systems

Breaks | 11:20 - 11:30 and 12:50 - 13:00

14.00 Closure



**George TSIVGOULIS**

Electrical Supervisor  
**Thenamaris (Ships Management) Inc.**

George I. Tsivgoulis received the Bachelor degree in marine engineering from the Hellenic Naval Academy (HNA) in 2001 and the M.Sc in electrical engineering and the electrical engineer Degree from the U.S Naval Postgraduate School (NPS) in 2009. He is currently working towards his Ph.D in telecommunications in the Intelligent Communication and Broadband Networks Laboratory of the National Technical University of Athens (NTUA). Mr. Tsivgoulis served as electrical and electronics engineer and as chief engineer onboard various warships of the Hellenic Navy and as deputy technical manager in the Hellenic Navy's Frigate Command. In 2015 he joined

Thenamaris Ships Management Inc., Athens, where he is holding the position of the Electrical Supervisor leading a team of electrical superintendents responsible for the electronics, radio navigation, telecommunications, OT computer and networks, electrical and automation systems of the managed vessels.

His research interests include: transmission techniques in MIMO/OFDMA systems, Wi-Fi networks in high reverberant spaces, Smart ships, VSAT communications, wireless sensor networks and digital signal processing. Mr. Tsivgoulis is a Registered Electrical Engineer and member of the Technical Chamber of Greece.



# WEBINAR Outline | Learning Objectives

## Hot Technical Topics for Modern Electro-Technical Officers (ETOs)

The 2-day webinar which is addressed to tanker and bulk carrier vessels' Electro-Technical Officers (ETOs), aspires to provide insights to ETOs on troubleshooting technically challenging electrical and automation issues that frequently occur onboard and to familiarize them with new technical concepts such as industrial networks, IoT systems and OT cybersecurity. The specific training uses material from the systems used onboard and attempts to synthesize effectively theory with the practical experience accumulated over the years.

### Day 1:

- Electrical circuits & drawings
- AC power distribution systems
- 24VDC & battery systems
- Alternators & ACBs
- Power management systems

### Day 2:

- Automation systems basics
- Controllers, sensors & actuators
- Automation systems case studies
- Industrial networks, communications and IoT systems
- OT systems cybersecurity

2023

REFRESHER TRAINING PROGRAM

**From our members for our members**

# Hot Technical Topics for Modern Electro-Technical Officers (ETOs)

19 - 20 December 2023

10.00 - 14.00 EET