

# Sustainable Maritime Propulsion: A NAOME–CMT Collaborative Webinar

## Event Outline

The maritime sector is undergoing a critical transition towards decarbonised and sustainable propulsion systems, driven by IMO net-zero targets and rapid advancements in alternative fuels, digitalisation, and system integration. Achieving these goals requires a holistic approach that connects experimental engine research with system-level modelling and digital technologies.

This joint workshop between the CMT – Motores Térmicos Research Centre (UPV) and the Naval Architecture, Ocean & Marine Engineering (NAOME) Department at the University of Strathclyde aims to bring together leading researchers to explore synergies between high-fidelity experimental combustion studies and advanced marine system modelling and digital twin frameworks.

CMT's expertise in engine testbeds, combustion diagnostics, and emissions characterisation complements NAOME's strengths in marine propulsion system design, hydrodynamics, and digital twin-enabled optimisation. By integrating these capabilities, the workshop will address key challenges such as:

- Digital twins for marine propulsions
- Integration of alternative fuels (ammonia, hydrogen, methanol etc)
- Health management and fault diagnosis of marine engines
- Enhancing efficiency, reliability, and emissions performance

Through a series of focused presentations and discussions, the workshop will identify collaborative research opportunities, promote knowledge exchange, and lay the foundation for joint research initiatives and funding proposals.

**Date:** 10<sup>th</sup> of July 2026 (FRI)

**Location:** CMT, Universitat Politecnica de Valencia

**Time:** 1030 – 1330 (CET)

### Participating Bodies:

- [CMT, Universitat Politecnica de Valencia](#)
- [NAOME, University of Strathclyde](#)

## Agenda

Time (GMT / CET)	Topic	Speaker
0930 – 1010 1030 – 1110	Marine System Intelligence and digital twins	<a href="#">Dr. Chaitanya Patil</a>
1010 – 1040 1110 – 1140	SEAWISE: an AI-enabled real-time port LCA Model	<a href="#">Mr. Yongwoo Hur</a>
1040 – 1100 1140 – 1200	BREAK	
1100– 1130 1200 – 1230	Uncertainty quantification for marine engine modelling	<a href="#">Mr. Mieszko Kaminski</a>
1130 – 1200 1230 – 1300	AI-Driven Propeller Optimisation for Sustainable Marine Propulsion	<a href="#">Dr. Mina Tardos</a>
1200 – 1230 1300 – 1330	Retrofitting Ships for Climate Neutrality: The Green Marine Demonstrator Project	<a href="#">Dr. Yaseen Ahmed</a>