SORBONNE UNIVERSITY ABU DHABI

Année de L'IA
Year of AI
عام الذكاء الاصطناعي

Symposium

Marine AI and Robotics for Innovation and Sustainability:
Advancing Intelligence to Preserve Marine Biodiversity (MARIS-AI)

Wednesday 21 - Thursday 22 January 2026
9:00 am - 4:00 pm

SUAD Campus

An officially endorsed United Nation Ocean Decade Activity

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

IEEE **Oceanic Engineering Society** OES

◆ **IEEE** United Arab Emirates Section

IEEE **Robotics & Automation Society** TECHNICAL COMMITTEE FOR **MARINE ROBOTICS**

OPEN TO THE COMMUNITY · OPEN TO THE COMMUNITY

RESEARCH · RESEARCH · RESEARCH · RESEARCH

OCEAN YEAR · OCEAN YEAR · OCEAN YEAR · OCEAN YEAR

ARTIFICIAL INTELLIGENCE · ARTIFICIAL INTELLIGENCE

SUSTAINABILITY · SUSTAINABILITY · SUSTAINABILITY · SUSTAINABILITY

Summary

The two-day symposium "Marine AI and Robotics for Innovation and Sustainability: Advancing Intelligence to Preserve Marine Biodiversity" (MARIS-AI) is designed to bring together experts and stakeholders from academia, industry, and public institutions to explore the role of cutting-edge technologies in addressing key challenges in marine ecosystems.

Every day, the event will open with distinguished invited international and regional speakers, offering strategic perspectives on the integration of robotics, AI, and data science in marine monitoring and conservation. Throughout the symposium, contributed presentations (selected after abstract submission) will cover a wide range of topics, including Machine Learning and Artificial Intelligence, Autonomous Underwater Vehicles (AUVs), Bio-Inspired Robotics, Soft Robotics, Swarm Robotics, edge AI for real-time monitoring, energy-efficient solutions, and predictive modeling of marine biodiversity.

The symposium also aims to foster multidisciplinary dialogue, with a dedicated panel focused to sustainability issues and international regulations concerning data sharing, and inter-governmental cooperation to enhance the GCC and Middle East ecosystem of marine science and innovation.

A poster session and competition dedicated to students will be included to support knowledge sharing and training of the next generation of ocean technologists.

This Symposium is at the intersection of SCAI (Sorbonne Center for AI) and Ocean Institute, two leading Research Centers at Sorbonne University, Abu Dhabi.

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Programme

Wednesday 21 January 2026

09:00 - 09:30
Registration and Breakfast

09:30 - 09:45
Welcome and Opening Remarks
Prof. Nathalie Martial-Braz, Chancellor , Sorbonne University Abu Dhabi

09:45 - 10:30
"Motion Tomography: Learning Ocean Flow from Marine Vehicle Trajectories"
Prof. Fumin Zhang, Hong Kong University of Science and Technology

10:30 - 11:00
"Underwater 3D Navigation with a Novel AUV Enabling Efficient, Reliable, and Safe Operation Across Shallow and Deep Waters"
Prof. Cesare Stefanini, MBZUAI (Mohamed bin Zayed University of Artificial Intelligence), UAE,

11:00 - 11:30 - Coffee Break

11:30 - 12:15
"Marine Robotics for Ocean Decade Initiative
Dr. Francesco Maurelli, Constructor University, Bremen, Germany

12:15-13:45 - Lunch buffet – Oval Room

13:45-14:30 - Panel

"Aligning Strategies: Policy, Innovation, and Conservation for a Sustainable Ocean"

Ms. Khaloud Al Subaihi, Manager Abu Dhabi Maritime**; Dr. Richard Perry,** Advisor, Environmental Agency Abu Dhabi**; Dr. Elise Marquis,** Senior Director, Yas SeaWorld Research & Rescue, Yas Island, Abu Dhabi**; Dr Daniel Mateos Molina,** Head of Marine Conservation at Emirates Nature

Moderator - **Dr Aude Solveig-Epstein**, Provost, Sorbonne University Abu Dhabi

14:30 - 15:00

"Cooperative Autonomy and Edge AI: Enabling Persistent Underwater Monitoring with Multi-Robot Systems"

Dr. Giulia De Masi, Associate Professor, Sorbonne University Abu Dhabi

15:00 - 15:30

A distributed motion planning approach to cooperative underwater acoustic source tracking

Dr. Andrea Tiranti, University of Genoa, Italy

15:30 - 16:00

"AI-Enabled Monitoring of the Invasive Pearl Oyster (Pinctada radiata) in the Eastern Mediterranean Using Underwater Surveys"

Dr. Dimitrios Politikos , National Center for Scientific Research, Greece

Thursday 22 January 2026

08:30 - 09:00
Welcome and Breakfast

09:00 - 09:15
Opening Remarks

Dr. Clio Chaveneau, Head of SAFIR , Sorbonne University Abu Dhabi

09:15 - 10:00 - Keynote

"Reliable bio-inspired autonomous robot swarms for marine sustainable development"

Dr. Enrica Zereik, Institute of Marine Engineering (INM), Genova, Italy

10:00 - 10:45 - Panel

"AI & Sustainability: A Mid-Decade Assessment"

Dr. Beatriz Garcia, Associate Professor and Sustainability spokesperson, Sorbonne University Abu Dhabi**; Dr. Samuel Feng,** Associate Professor Department of Mathematics, Sorbonne University Abu Dhabi; **Dr. Francesco Maurelli,** Associate Professor of Robotics, Constructor University, Bremen

Moderator - **Dr. Giulia De Masi,** Associate Professor, Sorbonne University Abu Dhabi

10:45 - 11:15 - Coffee Break

11:15 - 12:00

"Design, Modeling, and Control of Underwater Soft Robots"

Dr. Federico Renda, Khalifa University, Abu Dhabi, UAE

*12:00 - 13:45 - Lunch buffet and **Poster Session** – Oval Room*

13:45 - 14:15 - Panel on Women in AI and Robotics: Challenges and Perspectives

Dr. Lama Tarsissi, Associate Professor, Sorbonne University Abu Dhabi and Ambassador of the Committee of the Women in Mathematics (CWM) **; Dr. Enrica Zereik,** Institute of Marine Engineering (INM), Genova, Italy

Moderator - **Dr. Francesco Maurelli,** Associate Professor of Robotics, Constructor University, Bremen

14:15 - 15:00

"From Uninhabited Underwater Vehicles (UUVs) to Underwater Vehicle-Manipulator Systems (UVMS): From Surveillance to Interaction"

Prof. Kostas Kriakopoulos, New York University Abu Dhabi, UAE

15:00 - 15:45 - Keynote

"Semantic 3D Underwater Scene Analysis for Ecological Monitoring"

Prof. Jorge Dias, Khalifa University, Abu Dhabi, UAE

15:45 - 16:00 - Poster Award and Conclusion

Dr. Giulia De Masi, Associate Professor, Sorbonne University Abu Dhabi