



AI-Environment2025

Special Session on Innovational Handling of Artificial Intelligence for Marine Environment (AI-Environment2025)

at the **2nd IEEE Afro-Mediterranean Conference on Artificial Intelligence (2025 IEEE AMCAI)**

Valenciennes, France, October 14-16, 2025

Conference website: <https://amcai-atia.tn/>

Special Session Organizers

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Objectives and topics

The marine environment is a vital component of the Earth's ecosystem, providing essential resources, regulating climate, and supporting a vast diversity of life. However, it faces increasing threats from human

activities, climate change, and pollution, leading to habitat degradation, biodiversity loss, and disruptions in marine food chains. Sustainable management and conservation efforts are crucial to maintaining the health of ocean ecosystems and ensuring the balance between human development and environmental protection. Advances in science and technology (including artificial intelligence, remote sensing and ecological monitoring) play a key role in understanding marine dynamics and mitigating environmental challenges. By promoting responsible fishing practices, reducing pollution, and enhancing marine conservation policies, we can protect ocean biodiversity, sustain coastal economies, and preserve the critical functions that the marine environment provides for life on Earth.

This Special Session on **Innovational Handling of Artificial Intelligence for Marine Environment (AI-Environment2025)** at the **2nd Afro-Mediterranean Conference on Artificial Intelligence (AMCAI2025)** aims to bring together two typically distinct disciplines: computer scientists specializing in artificial intelligence and machine learning, and researchers focused on marine and environmental sciences.

Submissions presenting real-world case studies demonstrating scientific relevance and original AI applications are highly encouraged, alongside novel methodological contributions. The scope of **AI-Environment 2025** includes, but is not limited to, the following topics:

Marine and Environment AI Research

- AI-driven oceanographic modeling and simulation
- Remote sensing and satellite imagery for marine ecosystem monitoring
- Detection and prediction of harmful algal blooms (HABs)
- AI applications in marine biodiversity conservation
- Sustainable fisheries management using AI
- Climate change impact assessment on marine environments
- AI for monitoring and mitigating ocean acidification
- Underwater robotics and AI-driven autonomous marine exploration

- AI-enhanced water quality monitoring and pollution detection
- Predicting and mitigating coastal erosion and sea-level rise
- Marine plastic waste tracking and removal using AI
- AI-driven habitat restoration and coral reef conservation

Environmental Monitoring and Sustainability

- AI-based early warning systems for environmental disasters
- Predicting and managing oil spill using machine learning
- AI applications in marine meteorology and storm prediction
- Smart aquaculture and AI-driven resource optimization
- Real-time monitoring of marine protected areas (MPAs)
- AI for detecting illegal fishing and maritime security threats
- AI-powered decision-making in environmental policy and regulation
- Sustainable ocean energy and AI-driven resource optimization
- Environmental impact assessment and predictive modeling
- AI-powered eco-tourism and sustainable coastal development

Important dates

Paper Submission Deadline: April 15, 2025
 Authors Notification: June 15, 2025
 Camera Ready and Registration: July 05, 2025
 Conferencedate: October 14-16, 2025

Program Committee (to be invited)

Yosr Ghazzi, University of Sfax, Tunisia
 Rim Ktari, University of Kairouan, Tunisia
 Farah Khemakhem, University of Sfax, Tunisia
 Hajer Ben Daya, University of Sfax, Tunisia
 Malika Belhassen, INSTM, Tunisia,
 Ali Harzallah, INSTM, Tunisia
 Asma Hamza, INSTM, Tunisia
 Yousra Khammeri, INSTM, Tunisia
 Ismail Boudriga, INSTM, Tunisia
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Salma Jamoussi, University of Sfax, Tunisia
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Nawres Khalifa, University of Tunis El Manar, Tunisia
Bilel Marzouki, University of Mannouba, Tunisia
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Olfa Jemai, University of Gabès, Tunisia
Farah Barika, University of Sousse, Tunisia
Olfa Belkahla, University of Mannouba, Tunisia
Yousri Kessentini CRNS, Tunisia
Soufiene Jaffali, Imam Abdurrahman ben Faisal University, SaudiArabia
M.Riad YAGOUBI, University of Boumerdes, Algeria
Abdelhak SAOULI, University of Boumerdes, Algeria
Sahbi Chaibi, University of Monastir, Tunisia
Ali Wali, University of Sfax, Tunisia

Submission

All contributions should be original and not published elsewhere or intended to be published during the review period. The contributions should address research questions that relate to one of the topics listed above.

Authors are invited to submit their papers electronically in pdf format, through EasyChair at <https://easychair.org/conferences/?conf=amcai2025>. All the special sessions are centralized as tracks in the same conference management system as the regular papers. Therefore, to submit a paper please activate the following link and select the track: **AI-Environment2025: Special Session on Innovational Handling of Artificial Intelligence for Marine Environment.**

Manuscripts should be prepared in 10-point font using the IEEE 8.5" x 11" two-column conference format
<https://www.ieee.org/conferences/publishing/templates.html>

Submitted regular papers are written in English, between 6 to 8 pages (including all figures, tables, and references).

Submissions not following these guidelines may be rejected without review. Also,

submissions received after the due date, exceeding the length limit, or not appropriately structured may also not be considered.

To ensure high quality, all submissions are blind peer-reviewed by at least three reviewers from the ***AI-Environment2025Program Committee***.

All accepted papers must be presented by one of the authors who must register for the conference and pay the fee.

All accepted and presented papers will be submitted to IEEE Xplore for inclusion.