Special Issue

Artificial Intelligence Applications in Underwater Sonar Images

Message from the Guest Editors

The processing of underwater sonar image data has always been a fundamental technology for ocean exploration. In recent years, there has been a growing use of artificial intelligence techniques for analyzing sonar images. This Special Issue aims to explore the application of AI technology in underwater sonar imagery to effectively address real-world problems and advance the development of AI in the underwater sonar image industry. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Detection of targets in underwater sonar images by deep learning methods.
- Image segmentation of seabed geomorphological terrain using artificial intelligence techniques.
- Innovative artificial intelligence models.
- Acquisition and production of underwater sonar image datasets.
- Proposing a new paradigm for artificial intelligence techniques.
- New concepts and advanced sonar detection equipment for underwater sonar images.
- Underwater simultaneous localization and mapping based on sonar information perception.
- Underwater acoustic radiation and scattering.

Guest Editors

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Deadline for manuscript submissions

closed (10 May 2025)

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About the Journal

Message from the Editor-in-Chief

The *Journal of Marine Science and Engineering* (*JMSE*; ISSN 2077-1312) is an international peer-reviewed open access journal which provides an advanced forum for studies related to marine science and engineering. The journal aims to provide scholarly research on a range of topics, including ocean engineering, chemical oceanography, physical oceanography, marine biology and marine geosciences. We invite you to publish in our journal sharing your important research findings with the global ocean community.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).