

Special Issue

Innovative Underwater Robotics for Ocean Observance

Message from the Guest Editors

About 71% of the Earth's surface is water-covered. However, the exploration of the ocean is still inadequate. Unmanned underwater vehicles (UUVs) are automated and operate independently of direct human input. With the development of artificial intelligence technologies, the application of underwater robotics has aroused the interest of researchers. It can assist with ocean observation, deep-sea exploration, offshore inspection, surveillance, and reconnaissance. Different from ground or aerial vehicles, UUVs operate in a marine environment, which is usually unknown, dynamic, hostile, and unconstructed. In such a complex and uncertain environment, it is difficult for UUVs to accomplish one or multiple missions and to realize full autonomy. In particular, the harshness of the underwater environment and the nature of the signal make navigation, guidance, and control challenging. In this Special Issue, innovative and frontier research in navigation and decision making for underwater robotics is addressed, with emphasis on the sensing, data fusion, target detection, motion planning, task management, and cooperative control and application of UUVs.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Journal of Marine Science and Engineering (JMSE, ISSN: 2077-1312) focuses on research in the fields of Ocean Engineering, Coastal Engineering, Physical Oceanography, Geological Oceanography, Marine Biology, and Marine Environmental Science. It publishes reviews, regular research papers, and short communications, as well as Special Issues on particular subjects. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the maximum length of the papers.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi

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