

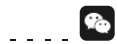
Special Issue "Research Progress on Ocean Observations Technology and Information Systems"

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Special Issue Information

Dear Colleagues,

The oceans play a crucial role in the global ecosystem for shaping climate and weather trends, water management and health, and the biogeochemical cycles, representing valuable sources of oil, food, minerals and renewable energy. Although increasingly mature marine observation technologies have been developed during recent decades for a better understanding of the oceans, the new advances of existing operational observing systems have been constrained by limited cooperation and interaction between the managers of existing ocean networks on earth as well as between the observing units. Furthermore, the development of smart in situ marine sensors to be integrated into existing fixed units (such as landers and mooring buoys) as well as in mobile units (such as AUVs, ROVs, ships of opportunity, marine drones, Argo floats and gliders) are under development in the frame of various European and international projects. In recent years, a lot of progress has been made for the Ocean Observation Technologies and Information Systems by developing cost effective and miniaturized sensing devices with very low power consumption that would be directly integrated as a "plug and play" operational mode in existing sensor networks. Additionally, a lot of effort has been made to develop acoustic communication methods and modules to transmit the data from the deep ocean as well as cellular systems for transmitting the data of the marine sensors in near real-time mode using 4G/5G protocols (especially in coastal areas). In order to improve the processes that take place globally in the oceans (such as weather monitoring and forecasting, climate variability, sea level rise, natural hazards, ocean acidification, health of the ocean, pollution and ecosystem functioning, energy, economic development and coastal management, public safety, security, training and education), new research is ongoing to

improve and optimize infrastructures and updated models at the international level. The state-of-the-art in situ marine sensors with the capability to be easily integrated into ocean platforms combined with innovative communication and information systems for real-time data transmission will emerge as new features of both forecasting methods and smart emergency systems to protect humans.

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Guest Editors

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Manuscripts should be submitted online at www.mdpi.com by [registering](#) and [logging in to this website](#). Once you are registered, [click here to go to the submission form](#). Manuscripts can be submitted until the deadline. All submissions that pass pre-check are peer-reviewed. Accepted papers will be published continuously in the journal (as soon as accepted) and will be listed together on the special issue website. Research articles, review articles as well as short communications are invited. For planned papers, a title and short abstract (about 100 words) can be sent to the Editorial Office for announcement on this website.

Submitted manuscripts should not have been published previously, nor be under consideration for publication elsewhere (except conference proceedings papers). All manuscripts are thoroughly refereed through a single-blind peer-review process. A guide for authors and other relevant information for submission of manuscripts is available on the [Instructions for Authors](#) page. ***Journal of Marine Science and Engineering*** is an international peer-reviewed open access monthly journal published by MDPI.

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Keywords

- ocean observation systems
- fixed platforms
- mobile platforms
- sensors' integration
- ocean networks
- marine information systems
- environmental monitoring
- maritime data processing and modeling