

Special Issue on
**Underwater Wireless Communications
and Networks**

CALL FOR PAPERS

Future underwater communications are expected to provide high speed and ultra-reliable communication for large-scale coverage of emerging underwater applications. This includes sea exploration, conservation biology, and marine security.

Underwater communications and networks need to integrate more advanced technologies and innovations for more robustness of large-scale underwater network deployment and high data-rate underwater communication. The advanced technologies include the physical design of the new modulation method for the channel estimation for the time-varying underwater channel, to the transceiver design with spatial diversity, as well as the medium access control (MAC) protocol design for the full-duplex or multiuser multiple-input (MU-MIMO) underwater system. The artificial intelligence (AI) techniques also have been emergent technologies to satisfy the future communication and network requirement. Through the deep integration of more complex communication system, more varying communications, underwater wireless communication, and network can effectively improve performance. It helps cope with different demands of application with great robustness, system capacity. Furthermore, it enables deeper sea exploration.

This Special Issue aims to bring together researchers from academia and industry to identify and discuss the major technical challenges, recent breakthroughs, and novel applications related to the design and optimized of underwater communication and networks. We welcome both original research and review articles.

Potential topics include but are not limited to the following:

- ▶ Transceiver design for underwater acoustic communications
- ▶ Full duplex and interference management techniques for underwater acoustic communications
- ▶ Underwater optical communications
- ▶ Underwater Internet of Things
- ▶ Underwater noise modelling
- ▶ Underwater communications
- ▶ MIMO-based underwater acoustic communications
- ▶ Machine learning for communications and networks
- ▶ MAC design for underwater sensor networks
- ▶ Underwater wireless channel modeling

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.hindawi.com/submit?specialIssue=398043>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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