

Special Issue

Optical Sensing and Optical Communication: Technologies, Systems, and Applications

Message from the Guest Editors

Optical communications process massive bandwidth at the speed of light, outperforming electronic systems in energy efficiency and holding the key to improving high-performance computing and data center interconnect performance. Optical sensing requires no moving parts and offers high sensitivity. Advances in materials and integration technologies are driving the development of optical sensing towards lower loss and higher sensitivity. To meet the demands for ultra-high-speed, ultra-large capacity, and ultra-long-distance transmission, optical communications and sensing technologies continue to evolve towards greater efficiency and integration. This Special Issue seeks to provide a platform for researchers and engineers to present their cutting-edge work. Research areas may include the following topics:

- Optical sensors;
- Optical fiber sensors;
- Optical micro-cavity sensing technology;
- Optical sensors based on functional materials;
- Optical communication;
- Optical wireless communication;
- Optical fiber communication system;
- Underwater optical communication;
- Visible light communication;
- Optical signal processing technology;
- AI and machine learning in optical sensing and optical communication.

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About the Journal

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Optics (ISSN 2673-3269) aims at establishing *Optics* as a leading journal for publishing high impact fundamental research and applications in optics field with a fast processing time and high quality service. The journal particularly welcomes both theoretical (simulation) and experimental research within our journal's scope. We encourage scientists to publish their experimental and theoretical results in as much detail as possible. So, there is no restriction on the length or pages of the papers. The full experimental details must be provided so that the results can be reproduced. Electronic files and software regarding the full details of the calculation or experimental procedure, if unable to be published in a normal way, can be deposited as supplementary electronic material.

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