Special Issue

Challenges and Opportunities in Free Space Optical Communication

Message from the Guest Editors

Free-space optical communication (FSO) has been applied in scenarios such as inter-satellite communication, satellite-ground communication, and 5G fronthaul networks due to its enormous spectrum resources compared to radio frequency communication. This Special Issue aims at presenting original, state-of-the-art research articles dealing with methods to improve the capacity and stability of the FSO system. Specifically, papers are solicited dealing with channel compensation methods. Researchers are invited to submit their contributions to this Special Issue. Topics include, but are not limited to, the following:

- Acquisition, tracking, and pointing (ATP);
- Measurement of atmospheric turbulence;
- Modulation format, forward error correction coding, interleaving, and retransmission;
- Spatial diversity and mode diversity;
- Channel monitoring and prediction;
- FSO/RF cooperative transmission and adaptive transmission;
- Relay-assisted transmission;
- Coherent detection;
- Spatial division multiplexing FSO systems
- Superconducting nanowire single photon detector, single photon avalanche photodiode, and other detectors suitable for FSO systems.

Guest Editors

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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