Special Issue

Challenges and Opportunities in Wireless Optical Communication

Message from the Guest Editors

Wireless optical communication (WOC) is an emerging field that leverages light for high-speed data transmission, being a promising partner and, in some special situations, a reliable alternative to traditional radio frequency (RF) communication systems. The rapid growth of data demand, driven by the proliferation of internet-connected devices and services, has imposed the exploration of new communication paradigms. WOC presents several significant opportunities, including huge bandwidth availability, high data rates, enhanced security, and immunity to electromagnetic interference. Exploring these challenges and opportunities will be essential for realizing the full potential of WOC in next-generation communication networks. Topics include, but are not limited to, the following:

- Indoor positioning systems based on VLC;
- OWC systems applied in industry;
- OWC systems applied in medical facilities and devices;
- Underwater OWC systems;
- FSO between ground and unmanned aerial vehicles (UAV);
- Current implementation and further developments of Li-Fi technology;
- OCC technology with its key characteristics and further developments.

Guest Editors

Dr. Simona Riurean

Department of System Control and Computer Engineering, University of Petrosani, 332006 Petrosani, Romania

Dr. Monica Leba

Department of System Control and Computer Engineering, University of Petrosani, 332006 Petrosani, Romania

Deadline for manuscript submissions

1 August 2025

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Photonics

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Impact Factor 1.9
CiteScore 3.5

mdpi.com/si/210414

Photonics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
photonics@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Nelson Tansu
School of Electrical and Electronic Engineering (EEE), The University of Adelaide, Adelaide, SA 5005, Australia

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