

## Special Issue

# Optical Fiber Communication: Challenges and Opportunities

### Message from the Guest Editors

This Special Issue, entitled “Optical Fiber Communication: Challenges and Opportunities”, is dedicated to showcasing the latest explorations and advancements in this research field. We are pleased to invite you to submit your latest research findings to this Special Issue, which welcomes both original research articles and reviews. Topics of interest include, but are not limited to, the following:

- Fiber-optic communications;
- Digital and optical signal processing for optical fiber communications;
- Devices and components for optical fiber communications;
- Subsystems for optical transmission;
- Hybrid fiber/free-space optical communications;
- Optical channel models and characteristics;
- Optical networks;
- 5G/6G fronthaul;
- Passive optical networks;
- Wavelength-division multiplexing techniques;
- Space-division multiplexing techniques;
- Cost- and energy-saving techniques;
- Physical layer security in optical networks;
- Integrated sensing and communication in optical fibers.

We look forward to receiving your contributions.

### Guest Editors

Dr. Zhouyi Hu

Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, The Netherlands

Dr. Yang Hong

Nokia Bell Labs, Paris-Saclay, 91620 Nozay, France

Dr. Xing Ouyang

Tyndall National Institute, University College Cork, Cork, Ireland

### Deadline for manuscript submissions

10 December 2025



## Photonics

an Open Access Journal  
by MDPI

Impact Factor 1.9  
CiteScore 3.5



[mdpi.com/si/201488](https://mdpi.com/si/201488)

*Photonics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[photonics@mdpi.com](mailto:photonics@mdpi.com)

[mdpi.com/journal/  
photonics](https://mdpi.com/journal/photonics)





# Photonics

---

an Open Access Journal  
by MDPI

---

Impact Factor 1.9  
CiteScore 3.5



[mdpi.com/journal/  
photonics](https://mdpi.com/journal/photonics)



## About the Journal

### 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

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPus / SciFinder, and other databases.

#### Journal Rank:

CiteScore - Q2 (Instrumentation)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).