# **Special Issue**

## Optical Machine Learning for Communication and Networking

## Message from the Guest Editors

This Special Issue will summarize the state-of-the-art methods so that researchers can validate ML practices for use as a distinctive and effective set of signal processing tools in optic communication systems. It aims to resolve critical issues that cannot be easily explored using conventional approaches. Furthermore, 5G networks will require a more dynamic and optimized network through increasing the implementation of AI and big data in future networks. Thus, such compressive material will become necessary and beneficial for optical communications and networking researchers. **Potential points incorporate yet are not restricted to the accompanying:** 

- Intelligence optical systems;
- Characterization of optical networks using AI/ML;
- Transmission estimation in an optical networks using ML;
- AI and on-board AI in optical networks;
- OML-based failure management in optical networks;
- Future intelligent elastic optical networks;
- OML for routing and resource allocation in optical networks;
- Mitigating nonlinearity issues in optical networks using AI;
- Traffic prediction using OML;
- Optimized photonics-based system;
- OML for free-space optical communication.

#### **Guest Editors**

Dr. Santosh Kumar

Dr. Ali Kashif Bashir

Dr. Ajay Vyas

Deadline for manuscript submissions

closed (30 November 2022)



## Photonics

an Open Access Journal by MDPI

Impact Factor 1.9 CiteScore 3.5



mdpi.com/si/123642

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

mdpi.com/journal/

photonics





# Photonics

an Open Access Journal by MDPI

Impact Factor 1.9 CiteScore 3.5



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, CAPlus / 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).