Special Issue

Intelligent Optical Signal Processing in Optical Fiber Communication

Message from the Guest Editor

Optical signal processing has emerged as a significant topic in optical fiber communications, further boosting the system capacity. The linear and nonlinear penalties, such as the fiber dispersion, polarization mode dispersion, and fiber nonlinearity, which pose certain limitations for signal transmission, can be readily overcome via the use of advanced signal processing techniques. Intelligent signal processing aims to exploit the upcoming artificial intelligence tide in order to achieve the more efficient and low-cost realization of the signal processing target. This Special Issue focuses on, but is not limited to, the theory, algorithms, and experimental realization of intelligent optical signal processing, with the aim of sharing the state-of-the-art technology with the broader research community.

Guest Editor

Prof. Dr. Junhe Zhou

College of Electronic and Information Engineering, Tongji University, Shanghai, China

Deadline for manuscript submissions

20 January 2026



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/204956

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

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

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

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

