



an Open Access Journal by MDPI

Optics for AI and AI for Optics

Guest Editors:

Dr. Jinlong Wei

Prof. Dr. Alan Pak Tao Lau

Prof. Dr. Lilin Yi

Dr. Elias Giacoumidis

Dr. Qixiang Cheng

Deadline for manuscript
submissions:

closed (30 November 2019)

Message from the Guest Editors

This Special Issue encourages proposals of optical implementations of AI and ML algorithms. Potential topics include, but are not limited to the following:

- Analysis of computing complexity and power consumptions of AI applications;
- Introduction and implementation of optics, such as all-optical signal processing and integrated-photonics implementation of reservoir computing neural networks that can fundamentally improve the computing and power efficiency for AI applications;
- Novel photonic devices that facilitate optical computing for ML applications;
- Photonic integrated circuits for deep neural networks;
- AI for optical communications incorporating digital signal processing in the physical layer;
- AI for optical communications network layer;
- AI for highly-sensitive laser noise characterization;
- AI for optical sensing that might include polarization sensing, OSNR sensing, etc.;
- AI for quantum computation, theory, and communications;
- Review articles which describe the current state of the art of AI and optics.



mdpi.com/si/20701



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

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.

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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](#)