Special Issue

Optics for AI and AI for Optics

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.

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)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/20701

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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

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