Optical Machine Learning for Communication and Networking

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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.

Special Issue