Special Issue

Next-Generation Digital Signal Processing for 6G-Enabled Optical Communication

Message from the Guest Editors

This Special Issue focuses on the latest developments and theoretical advancements in digital signal processing (DSP) for 6G-enabled optical communication. It seeks to explore novel DSP methods, algorithms, and architectures that address the unique challenges of next-generation optical systems, with a particular emphasis on their integration into 6G networks. Research areas may include (but are not limited to) the following:

- Signal processing techniques for coherent optical communications;
- Machine learning in optical signal processing;
- High-speed error correction and coding techniques;
- Optical modulation formats and their dsp requirements;
- Photonics-aided DSP for terabit-per-second data rates;
- Low-power DSP architectures for optical communication;
- Digital pre-distortion techniques for optical transmitters;
- Optical signal processing for quantum communication networks;
- DSP for secure optical communication;
- DSP algorithms for joint optical communication and sensing.

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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