Special Issue

Semiconductor Memory Devices for Hardware-Driven Neuromorphic Systems

Message from the Guest Editor

This Special Issue aims to convey the most recent progresses in hardware-driven neuromorphic systems. The machine learning system and various types of artificial neural networks to realize the learning process have been mainly focused on software technologies. Tremendous advances have been made particularly in the area of recognition, in which humans have great superiority compared to computers. For higher resemblance with the biological nervous system, the upcoming progresses are ought to take power consumption into account and foster revolutions in the electron devices and integrated circuits that make up the neuromorphic system. For this Special Issue, we cordially invite contributions related to state-of-the-art technologies for neuromorphic systems more intimately oriented to hardware developments. Topics of interest include but are not limited to:

- Hardware-driven neuromorphic system
- Machine learning
- Artificial neural network
- Mathematical and physical theories, modeling, and algorithms
- Synaptic electron devices
- Solid-state logic and memory devices
- Neuron circuits
- Neural chip emulation
- Process integration

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About the Journal

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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

