Special Issue

Neuromorphic Device, Circuits, and Systems

Message from the Guest Editors

Neuromorphic computing has become an attractive candidate for emerging computing platforms. Using principles from biology, neuromorphic computing creates engineered circuits and systems that function like living organisms. Despite their VLSI origins, neuromorphic circuits that use VLSI semiconductors are advancing increasingly and moving further away from the von Neumann generation. Artificial intelligence and learning can be demonstrated along with the evolution of emerging devices, circuits, and systems that more closely resemble their biological prototypes. As neuromorphic devices, circuits, and systems continue to develop, they mimic the brain's computational primitives more closely in terms of efficiency, functionality, and plasticity. The purpose of this Special Issue is to discuss the state of the art in terms of devices, circuits, architecture, analysis, and optimization for neuromorphic computing systems. It also discusses the design and development of neuromorphic computing devices and hardware and neuromorphic learning algorithms using emerging circuits and devices.

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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 guestedited by leading experts in selected topics of interest.

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