Special Issue

Memristive Neural Architectures and Intelligent Systems

Message from the Guest Editors

Neuromorphic computing was inspired by the biological neural networks in the human brain. Neural architectures for neuromorphic computing can be made area-efficient with memristive devices and networks. Developing efficient hardware for learning and inference tasks is important for neural computing applications. Emerging devices used for building memristive systems often suffer from variability issues, making their implementation challenging. This SI is focused on the emerging devices, algorithms and systems inspired by the biological neural networks. Covering the latest research findings and highlighting hardware implementations in memristors and neural computing, in-memory computing and neural networks, near-sensor neural networks, analog neural networks and sensor fusion, chaotic circuits and stochastic neural networks, cognitive architectures and their hardware implementations, neural circuits and ASIC, FPGA-based neural networks, hierarchal temporal networks, cellular neural networks and spiking neural networks are particularly sought after. Papers should provide experimental evidence and results focusing on energy-efficient implementations of bio-inspired neural networks.

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Deadline for manuscript submissions

closed (31 August 2023)

Brain Sciences

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.6
Indexed in PubMed

mdpi.com/si/136979

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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