Special Issue

Unlocking the Brain-Inspired Future: Frontiers in Neuromorphic Computing

Message from the Guest Editors

Contributions are sought in foundational theory and novel computational models, with a particular focus on how these models can achieve unprecedented energy efficiency and scalability. We are also keenly interested in submissions that detail revolutionary hardware and architectures, from innovative ASICs and programmable arrays to advancements in on-chip learning and plasticity that enable systems to learn and adapt autonomously.Beyond hardware, we seek papers on the software and toolchains that are essential for democratizing access to this technology. This includes work on advanced simulation tools, new programming languages tailored for spiking neural networks, and sophisticated data preprocessing techniques. The final section of this collection will look forward, featuring papers that forecast the future trajectory of neuromorphic computing, including the promise of hybrid architectures and the critical ethical considerations surrounding this technology. By bringing together diverse perspectives, this Special Issue aims to illuminate the path forward and inspire the next wave of innovation in brain-inspired AI.

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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.

Editor-in-Chief

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