

Call for Papers

Special Issue on Neuromorphic Devices and Circuits for Next Generation Flexible Electronics

It is intriguing how our body acquires massive, multimodal sensory information from a large number of receptors all over the body and promptly integrates them for decision-making in day-to-day activities while maintaining an ultra-low energy consumption and cognitive load. Such a “bio-like” sensory information processing paradigm shows unparalleled advantages to the traditional von Neumann architecture because of its extreme power efficiency, fault tolerance, adaptation, etc. Inspired by this, the scope of the Special Journal Issue focuses on the development of emerging neuromorphic devices and circuits, especially in the flexible form factor, and their applications in smart sensing and edge computing. Authors are invited to submit papers on the theoretical, technological and experimental aspects of the topics detailed below. Perspective and review articles are also welcomed.

Topics

- Emerging neuromorphic devices (memristors, synaptic transistors, etc)
- Novel neuromorphic circuits and systems
- Material-device-circuit co-design for neuromorphic hardware
- Novel sensors and algorithms for smart sensing
- Edge computing for various applications such as the internet-of-things, robotics, etc.
- Flexible and Printed Electronics

Important dates (tentative)

MonthYear1: Oct 2022	Call for Papers
MonthYear2: April/2023	Deadline for Paper Submission
MonthYear3: July/2023	Completion of First Review
MonthYear4: Oct/2023	Completion of Final Review
MonthYear5: Dec/2023	Publication

Guest Editors

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Submission and Peer Review of Papers

All papers shall undergo the standard IEEE J-FLEX peer-review process. Manuscripts must be submitted online, via the *IEEE Manuscript Central*TM, see <https://mc.manuscriptcentral.com/jflex>. When submitting, please indicate in the “Manuscript Type” roll down menu, and also by e-mail to John Wright, john.wright@ieee.org, that the paper is intended for the “**Neuromorphic Devices and Circuits for Next Generation Flexible Electronics**” Special Issue. Authors are particularly encouraged to **suggest names of potential reviewers** for their manuscripts in the space provided for these recommendations in *Manuscript Central*. For manuscript preparation and submission, please follow the guidelines in the *Information for Authors* at the IEEE J-FLEX web page, <https://ieee-jflex.org/guidelines-for-authors/>.