Special Issue

Intelligent Computing Technology Based on New Types of Memristors

Message from the Guest Editors

Memristors, with their ability to mimic synaptic functions and their unique resistance-switching properties, have emerged as a groundbreaking technology and hold immense potential for next-generation computing architectures. This Special Issue of *Electronics* aims to compile original research that explores the latest developments in intelligent computing technologies based on new types of memristors. The aim of this Special Issue is to foster a deeper understanding of how memristor-based architecture can revolutionize and impact high-performance computing architecture, promoting breakthroughs in areas such as neuromorphic systems, in-memory computing, and the implementation of AI.

- Memristor-based neuromorphic system;
- In-memory computing;
- Memristor for spiking neural networks;
- Hybrid memristor-transistor architectures;
- Modeling and simulation of memristor devices;
- Memristors for edge and IoT applications;
- Emerging materials for memristors;
- Security and reliability in memristor computing systems;
- Artificial intelligence;
- Machine learning.

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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 guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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