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.

Guest Editors

Dr. Jing Xie

School of Electrical, Computer and Energy Engineering, Arizona State University, Tempe, AZ 85283, USA

Dr. Ivan Sanchez Esqueda

School of Electrical, Computer and Energy Engineering, Arizona State University, Tempe, AZ 85287, USA

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Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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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 guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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