Special Issue

Memristor Devices and Semiconductor: Models, Developments and Applications

Message from the Guest Editor

Since the start of the fourth industrial revolution, neural process-based artificial intelligence and internet of things have rapidly increased the demand for data processing. Modern computing systems have encountered a “bottleneck” and high-power consumption due to a number of the sequential data processing. In this context, a novel design of computing architectures (or system) based on memristors have shown excellent potential in replacing conventional computing systems and the emergence of new hardware such as memristors is a necessary and interest and efforts in related research are needed. Considering this situation, the aim of this Special Issue is to gather the most recent research and structural developments of memristors for models, developments, and applications, including the following topics:

- Electrical characteristics for memristors;
- Nanomaterials and nanocomposites for memristors;
- Two-dimensional structures for memristors;
- Crossbar array of memristors;
- Neuromorphic-behaving memristors;
- Integration and neuromorphic computing system based on memristors;
- Low-power consumption of memristors.

Guest Editor

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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

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