

**Call for Papers**  
**Special Issue of Journal of Microprocessors and Microsystems**  
<http://www.journals.elsevier.com/microprocessors-and-microsystems/editorial-board/>

**Issue Title:** Sustainable Processor Architectures and Applications

**Guest Editors:**

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**Theme:**

This special issue attempts to create a platform to foster new ideas and technical insights in the fields of energy-efficient and sustainable processor architectures and systems and their scientific, engineering, biomedical, and commercial applications. In particular, we would like to focus on issues on sustainable multi/many-core computing and programming, cloud computing, system-on-chip architectures/systems, application-specific multiprocessor architectures/systems, and application support. We invite submissions of regular papers with unpublished original results and, by invitation, the revised and extended version of the papers presented in the High-Performance Computing Architectures (HPCA) Track at the 12th International Conference on Information Technology: New Generation (ITNG) and Euromicro DSD'2015 Conference.

**Specific Topics:**

Topics of interest include, but are not limited to, the following:

- Power- and thermal-aware multi/many-core processor architectures
- Low-power system-on-chip (SoC) and network-on-chip (NoC) architectures
- Energy-efficient application-specific multiprocessor architectures/systems
- Power- and thermal-aware algorithms and software for on-chip applications
- Power and temperature modeling and monitoring mechanisms for on-chip systems
- Energy-efficient application modeling and mapping schemes for on-chip systems
- Energy-efficient parallelization and scheduling methodologies for multi/many-core systems
- Parallel programming models and compiler design for multi/many-core systems
- High performance computing and its scientific, engineering, biomedical, and commercial applications
- MapReduce and cloud computing for data-intensive processing
- System/application support for power and thermal management
- System/application support for multithreading, synchronization, and parallelism
- Debugger and performance analysis tools for multi/many-core processors

**Journal Guide for Authors:**

All submitted papers will be *peer-reviewed*. Accepted manuscripts must conform to the journal guide for Authors on:

<http://www.elsevier.com/journals/microprocessors-and-microsystems/0141-9331?generatepdf=true>

**Important Deadlines**

Submission of special issue manuscript: Sep. 1, 2015

Notification of special issue acceptance: Nov. 1, 2015

Submission of final journal version: Jan. 1, 2016