Special Issue

Energy Aware Scientific Computing on Low Power and Heterogeneous Architectures

Message from the Guest Editors

Energy consumption is becoming one of the most relevant issue for computing platforms running scientific applications and workloads. The use of energy-efficient processors, ranging from many-core architectures, like GP-GPU and Xeon-Phi, to Systems-on-Chip (SoCs) is required to obtain a high performance-per-watt ratio. However, on such systems, careful programming and optimization are needed to reach a high level of computing performances. The driving forces of high computational power demands, power consumption limitations and cost effectiveness are, in fact, leading to a convergence of the scientific computing and mobile/embedded sectors, historically very isolated and confined to specific markets. This Special Issue provides a selection of papers concerning energy aware computing (and storage) on high-end heterogeneous systems, as well as on off-the-shelf low-power Systems-on-Chip, originally designed for the embedded and mobile markets.

Guest Editors

Prof. Dr. Daniele Cesini
INFN-CNAF, 40127 Bologna, Italy

Prof. Dr. Schifano Sebastiano Fabio
Dipartimento di Matematica e Informatica, Università di Ferrara, 44122 Ferrara, Italy

Deadline for manuscript submissions

closed (31 March 2018)

Journal of Low Power Electronics and Applications

an Open Access Journal by MDPI

Impact Factor 1.8
CiteScore 4.3

mdpi.com/si/12694

Journal of Low Power Electronics and Applications
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jlpea@mdpi.com

mdpi.com/journal/jlpea

Journal of Low Power Electronics and Applications

an Open Access Journal by MDPI

Impact Factor 1.8
CiteScore 4.3

mdpi.com/journal/jlpea

MDPI

About the Journal

Message from the Editor-in-Chief

Journal of Low Power Electronics and Applications (ISSN 2079-9268) is an open access journal which provides an advanced forum for the studies of electronics for low power applications. A special emphasize is made on ultralow power bio-medical applications. It publishes reviews, regular research papers and short communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

Editor-in-Chief

Dr. Davide Bertozzi
Reader in Advanced Processing Technologies, Department of Computer Science, University of Manchester, Manchester M13 9PL, UK

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 23.4 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).

Journal Rank:

CiteScore - Q2 (Electrical and Electronic Engineering)