



## Energy-Harvesting and Self-Powered Devices

Guest Editors:

**Dr. Alessandro Bertacchini**

Department of Sciences and  
Methods for Engineering — DISMI  
—University of Modena and  
Reggio Emilia, via G. Amendola, 2,  
42122 Reggio Emilia, Italy

**Dr. Pierre Gasnier**

The French Alternative Energies  
and Atomic Energy Commission  
(CEA), Leti, Systems Department,  
MINATEC Campus, 17 rue des  
martyrs, F-38054 Grenoble Cedex,  
France

Deadline for manuscript  
submissions:

**closed (15 December 2022)**

### Message from the Guest Editors

The topics of this Special Issue include, but are not limited to:

- High-efficiency energy harvesting circuits;
- Context-aware power management circuits for energy-neutral devices;
- Ultra-low power front-end electronics;
- Ultra-low power communication interfaces;
- Smart wake-up and self-startup circuits for self-powered devices;
- Smart energy storage circuits or systems;
- Advancements in energy-aware design techniques and energy harvesting solutions;
- Real applications of self-powered devices;
- Ultra-low power hardware architectures for energy-constrained devices;
- Novel and efficient maximum point architectures for energy harvesting devices, including Microcontroller-based power management circuits;
- New extraction techniques for vibration energy harvesting, especially non-linear ones;
- Design methodologies of power management circuits;
- Simulation tools and modelling of power management circuits.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Andrea Acquaviva**

Department of Electrical,  
Electronic, and Information  
Engineering "Guglielmo  
Marconi", University of Bologna,  
33 - 40126 Bologna, Italy

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**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 22.2 days after submission; acceptance to publication is undertaken in 4.7 days (median values for papers published in this journal in the second half of 2023).

## Contact Us

---

*Journal of Low Power Electronics and Applications* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/jlpea](http://mdpi.com/journal/jlpea)  
[jlpea@mdpi.com](mailto:jlpea@mdpi.com)  
[X@JLPEA\\_MDPI](https://twitter.com/JLPEA_MDPI)