

## Special Issue

# Ultra-Low-Power ICs for the Internet of Things

### Message from the Guest Editor

Ultra-low-voltage/power analog and digital IC, powered by energy harvesters, faces the challenges of small area occupation, low design effort, and technology/design portability, which are needed in this Internet-of-Things (IoT) era that, in itself, has experienced exponential growth in relation to interconnected sensor nodes. In this framework, the aim of this Special Issue is to attract original research outcomes related to the design and application of ultra-low-voltage/power, digital-based and fully synthesizable ICs. The topics of this Special Issue include but are not limited to:

- Ultra-low-power interfaces for the Internet of Things: energy-efficient and power/voltage scalable, analog, mixed-signal IC;
- Inverter- and digital-based design methodologies of ultra-low power ICs;
- IC solution for ultra-low-voltage, energy and standby power consumption systems;
- Automated design methodology to fasten the time-to-market;
- Energy harvesting and power management circuit for IoT devices;
- Ultra-low-power/voltage ICs for instrumentation and communication applications.

---

### Guest Editor

Dr. Orazio Aiello

Department of Electrical and Computer Engineering, National University of Singapore (NUS), Singapore 117583, Singapore

---

### Deadline for manuscript submissions

closed (30 October 2022)



## Journal of Low Power Electronics and Applications

---

an Open Access Journal  
by MDPI

---

Impact Factor 1.8  
CiteScore 4.3



[mdpi.com/si/86133](https://mdpi.com/si/86133)

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

[mdpi.com/journal/  
jlpea](https://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](https://mdpi.com/journal/jlpea)



## 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)