

Special Issue

Ultra-Low-Power ICs for the Internet of Things (3rd Edition)

Message from the Guest Editor

Ultra-low-voltage/power analog and digital ICs, powered by energy harvesters, face the challenges of small area occupation, low design effort, and technology/design portability, which are needed in this Internet-of-Things (IoT) era, which, in itself, has experienced exponential growth in relation to interconnected sensor nodes. This Special Issue aims to attract original research articles related to the design and application of ultra-low-voltage/power, digital-based, and fully synthesizable ICs in this framework. 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, and 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 decrease 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

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About the Journal

Message from the Editor-in-Chief

Journal of Low Power Electronics and Applications is an open access journal which provides an advanced forum for rapid dissemination of innovative research and important results in all aspects of low power electronics and design.

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. The full experimental details must be provided so that the results can be reproduced.

Editor-in-Chief

Dr. Davide Bertozzi

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

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 24.2 days after submission; acceptance to publication is undertaken in 3.8 days (median values for papers published in this journal in the second half of 2025).

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