



Power Management of Energy-Autonomous Nodes and Systems

Guest Editors:

Dr. Andrea Ballo

Department of Electrical,
Electronics and Computer
Engineering (DIEEI), University of
Catania, 95125 Catania, CT, Italy

Prof. Dr. Alfio Dario Grasso

Dipartimento di Ingegneria
Elettrica Elettronica e Informatica
(DIEEI), University of Catania, I-
95125 Catania, Italy

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Message from the Guest Editors

Dear Colleagues,

The Internet of Things (IoT) paradigm is having a pervasive impact on modern society. The ubiquitous character of IoT nodes implies that they must be energy autonomous and untethered. In this regard, power autonomy is achieved by harvesting energy from the environment using transducers, such as photovoltaic (PV) cells, thermoelectric generators (TEG), and vibration transducers. Nevertheless, due to the heavy dependence of their output signal from operating conditions, these transducers are often unsuitable to feed directly to the circuit where they are applied. Therefore, IoT nodes employ a power management integrated circuit (PMIC) to adapt the generated power and maximize conversion efficiency. The main components of a PMIC are power converters, clock generators, and control circuitry (amplifiers, filters, references etc.) that must also enable self-startup in critical conditions, i.e., low voltage and low power levels provided by external energy harvesters.





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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

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MDPI, St. Alban-Anlage 66
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