Special Issue

Advances in Electronic Circuits for Energy Harvesting Based Wireless Sensor Networks

Message from the Guest Editor

Wireless sensor networks (WSNs) devices are frequently employed in environments or infrastructures where a wired energy supply is not present or its distribution is not economically convenient. Energy harvesters (EHs) are able to convert otherwise wasted forms of energy into electricity, are an effective solution for energy supply. However, the use of EHs is strongly limited by the low electrical power that they are able to generate. Therefore, the energy challenge emerges as one of the most critical issues in WSN design. As every sensor node requires power for data collection, processing, and communication, designing WSNs requires the optimization of efficiency from both the supply and the consumption points of view. With reference to supply efficiency, it is required to optimize both energy harvesting devices and the electronic interface placed between the energy harvester and the load, for maximum power point tracking (MPPT) purposes. With reference to consumption efficiency, it is required to optimize sensor node electronics, as well as network configuration, organization, and routing.

Guest Editor

Dr. Alessandro Lo Schiavo

Dipartimento di Ingegneria, Università degli Studi della Campania "Luigi Vanvitelli", Via Roma, 81031 Aversa, CE, Italy

Deadline for manuscript submissions

closed (15 November 2021)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/91311

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)