

Special Issue

Perpetual Sensor Nodes for Sustainable Wireless Network Applications

Message from the Guest Editors

Over the last few years, there has been an increasing interest in the development of wireless sensor networks (WSNs) for a variety of applications, such as structural health monitoring, smart homes and buildings, agriculture and environmental monitoring, among others. However, the widespread adoption of WSN technology has been limited partly due to sustainability and maintenance cost concerns. Therefore, there is a necessity to explore different approaches for the extension of battery life in sensor nodes. This *Technologies* Special Issue is focused on addressing energy harvesting, energy conservation, and wireless power transfer approaches to the development of sustainable and cost-effective wireless sensor nodes. Potential topics include (but are not limited to) ultra-low-power hardware architectures and communication protocols for sensor nodes, wireless-power-transfer-enabled sensor nodes, novel energy harvesting transducers, energy harvesting circuits for sensor nodes, predictive energy harvesting techniques, energy-saving and energy-aware battery management techniques, and low-power machine learning algorithms for wireless networks.

Guest Editors

Dr. Johan Jair Estrada-López

Prof. Dr. Alejandro A. Castillo Atoche

Dr. Javier Vázquez-Castillo

Deadline for manuscript submissions

closed (30 September 2024)



Technologies

an Open Access Journal
by MDPI

Impact Factor 3.6
CiteScore 8.5



mdpi.com/si/128514

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

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





Technologies

an Open Access Journal
by MDPI

Impact Factor 3.6
CiteScore 8.5



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



About the Journal

Message from the Editor-in-Chief

Technologies, provides a single focus for reporting on developments of all technologies, regardless of their application. It is our intention that *Technologies* becomes the journal of choice for both researchers wanting to publish their work and technologists wishing to exploit the high quality research across a wide range of potential applications. Through its open access policy, its quick publication cycle, *Technologies* will facilitate the rapid uptake and development of the research presented, ultimately providing benefit to the wider society.

Editor-in-Chief

Prof. Dr. Manoj Gupta

Department of Mechanical Engineering, National University of
Singapore, Singapore 117576, Singapore

Author Benefits

High Visibility:

indexed within ESCI (Web of Science), Scopus, Inspec, Ei
Compendex, INSPIRE, and other databases.

Journal Rank:

JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1
(Computer Science (miscellaneous))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 21.8 days after
submission; acceptance to publication is undertaken in 3.9
days (median values for papers published in this journal in
the first half of 2025).