



Smart Sensors and IoT Solutions for Sustainable Agriculture and Aquaculture Practices

Guest Editors:

Dr. Li-Wei Liu

Agriculture Science and Technology Section, General Research and Service Center, National Pingtung University of Science and Technology, Pingtung, Taiwan

Prof. Dr. Yu-Min Wang

Agriculture Science and Technology Section, General Research and Service Center, National Pingtung University of Science and Technology, Pingtung, Taiwan

Dr. Hsin-Wei Kuo

Biotech Medical Section, General Research and Service Center, National Pingtung University of Science and Technology, Pingtung, Taiwan

Deadline for manuscript submissions:

closed (31 January 2026)



mdpi.com/si/216748

Message from the Guest Editors

This Special Issue focuses on the vital role of wireless sensor networks (WSNs) and IoT technologies in advancing sustainability in agricultural and aquacultural systems. These technologies, including NB-IoT, Zigbee, and LoRa, enable the widespread deployment of smart sensors that monitor critical environmental conditions, such as soil moisture, temperature, water quality, and oxygen levels. By providing real-time data, these sensors allow for precise management of resources, which is essential for reducing environmental impacts and promoting sustainable practices.

This Special Issue will cover a broad range of topics, including the following:

- Climate-Smart Agriculture Technologies;
- Machine Learning Applications in Agriculture and Aquaculture;
- Smart Irrigation and Aquaculture Management Systems;
- Environmental Sensing for Sustainable Practices;
- Digital Agriculture and Aquaculture Solutions;
- AIoT in Agri-Aqua Management;
- Wireless Sensor Networks for Agri-Aqua Monitoring;
- Controlled Environment Agriculture (CEA) Technologies;
- UAVs and UASs for Precision Agriculture and Aquaculture;
- Deep Learning and Artificial Intelligence for Data Analysis.



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and
Natural Resources, Ohio State
University, Columbus, OH 43210,
USA

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [RePEc](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)

Contact Us

Sustainability Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sustainability
sustainability@mdpi.com
[X@Sus_MDPI](https://twitter.com/Sus_MDPI)