



New Development in Smart Farming for Sustainable Agriculture

Guest Editors:

Prof. Dr. Katarzyna Pentos

Institute of Agricultural Engineering, Wrocław University of Environmental and Life Sciences, 37b Chełmńskiego Street, 51-630 Wrocław, Poland

Prof. Dr. Gniewko Niedbała

Department of Biosystems Engineering, Faculty of Environmental and Mechanical Engineering, Poznań University of Life Sciences, Wojska Polskiego 50, 60-627 Poznań, Poland

Dr. Tomasz Wojciechowski

Department of Biosystems Engineering, Faculty of Environmental and Mechanical Engineering, Poznań University of Life Sciences, Wojska Polskiego 50, 60-627 Poznań, Poland

Deadline for manuscript submissions:

20 October 2024

Message from the Guest Editors

Smart farming is a relatively new farming management concept. It combines precision agriculture with digital technology. Many techniques and tools, such as Artificial Intelligence, the Internet of things, big data analysis, machine learning, modern communication technologies, development of GNSS and Earth observation systems, drones, robots and automation systems, are employed to make modern agriculture more “intelligent” and “smart”.

The Smart Farming approach is becoming an essential step toward sustainable agriculture by reducing the environmental impact of farming, and increasing consumer acceptance of agricultural technologies and products. Modern sensors collect information about parameters of crops, soil, water, etc. The acquired data are stored, processed, and analyzed, and valuable knowledge is extracted. Control and decision support systems use knowledge for the optimization and automatization of agricultural processes.

This Special Issue aims to present state-of-the-art papers related to a wide range of reviews, research papers, communications, technical papers, research concepts, and perspectives of smart farming in sustainable agriculture.





an Open Access Journal by MDPI

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

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.

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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](#)