



The Applications of Deep Learning in Smart Agriculture

Guest Editors:

Dr. Borja Espejo-García

Department of Natural Resources and Agricultural Engineering, Agricultural University of Athens, 75 Iera Odos St., 11855 Athens, Greece

Dr. Spyros Fountas

Department of Natural Resources Management and Agricultural Engineering, Agricultural University of Athens, 11855 Athens, Greece

Dr. Georgios Leontidis

Interdisciplinary Centre for Data and AI, School of Natural and Computing Sciences, University of Aberdeen, Aberdeen AB24 3FX, UK

Deadline for manuscript submissions:

31 July 2024

Message from the Guest Editors

Advancing toward smart agriculture has become an unavoidable step. This means that new emerging technologies should be integrated within important agricultural tasks (e.g., phenotyping, disease detection, yield prediction, harvesting, spraying, etc.). Many of these emerging technologies are related to deep learning.

The relationship between agriculture and deep learning has become rather promising in recent years; specifically, positive results have been reported by implementing deep-learning-based techniques, such as transfer learning, domain adaptation/generalization, transformer-based architectures, generative adversarial neural networks, knowledge distillation, neural architecture search, etc. These techniques, which directly favor the improvement of the current methods used in precision agriculture, could boost the value of different types of data: from images or videos to the texts found in regulatory documents, without forgetting about tabular data containing vegetation indexes along the growing season.

Thus, this Special Issue aims to provide a place for submitting all papers scoped under the agricultural domain and the use of deep learning-based techniques.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture,
Water and Environment
Research, Charles Sturt
University, Wagga Wagga, NSW
2678, Australia

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet. *Agronomy* is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

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), PubAg, AGRIS, and other databases.

Journal Rank: JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Agronomy and Crop Science)

Contact Us

Agronomy Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/agronomy
agronomy@mdpi.com
X@Agronomy_Mdpi