





an Open Access Journal by MDPI

Applications of Remote Sensing and Machine Learning for Digital Soil Mapping

Guest Editors:

Dr. Jing Geng

School of Geospatial Engineering and Science, Sun Yat-Sen University, Zhuhai 519082, China

Dr. Yongsheng Hong

State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing 210008, China

Dr. Yiyun Chen

School of Resource and Environmental Sciences, Wuhan University, Wuhan 430079, China

Deadline for manuscript submissions:

10 December 2024

Message from the Guest Editors

Soil mapping serves as a fundamental activity underpinning numerous environmental and agricultural endeavors. The integration of machine learning with remote sensing technology offers a groundbreaking alternative, enhancing the precision, efficiency, and scope of soil analyses. The aim of this Special Issue is to demonstrate the enhanced capabilities that machine learning and remote sensing technologies bring to digital soil mapping. It seeks to bridge ML and traditional soil science, fostering a multidisciplinary exchange that elevates our ability to forecast, scrutinize, and manage soil resources with accuracy.

We are soliciting original research articles and reviews covering, but not limited to the following topics:

Integration of machine learning algorithms and remote sensing for soil property prediction

Machine learning approaches for soil classification and taxonomy

Soil spectral library

Proximal, airborne, and satellite remote sensing

Advanced analytics in soil science utilizing big data and artificial intelligence

Case studies demonstrating the impact of these technologies in agricultural and environmental contexts



Specialsue







an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Les Copeland

Sydney Institute of Agriculture, School of Life and Environmental Sciences, The University of Sydney, Sydney, NSW 2006, Australia

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, crossdisciplinary and scholarly open access journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. Agriculture is published in an open access format – research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the public have unlimited and free access to the content as soon as it is published.

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, RePEc, and other databases.

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

Contact Us