



## Global Gridded Soil Information Based on Machine Learning

Guest Editors:

**Dr. Brigitta Szabó (Tóth)**

**Prof. Dr. Eyal Ben-Dor**

**Dr. Yijian Zeng**

**Dr. Salvatore Manfreda**

**Dr. Madlene Nussbaum**

Deadline for manuscript  
submissions:

**closed (31 May 2022)**

### Message from the Guest Editors

Dear Colleagues,

Recent technological advances in both remote sensing and soil mapping approaches and progress in establishing harmonized soil profile datasets have opened up the potential to derive global gridded soil information. Machine learning algorithms are among the most frequently used tools for data preprocessing and describing the complex relationship between soil properties and environmental covariates with the ability to assess the uncertainty of the predictions. This Special Issue is dedicated to machine learning-based methods in:

- proximal and digital global mapping of soil properties;
- computing systems/algorithms/approaches using Earth observation data to derive global gridded soil datasets;
- preprocessing Earth observation data to feed into global soil mapping;
- data-intensive computing methods for incorporating Earth observation data for predictive soil mapping;
- optimizing temporal resolution to globally track the changes of soil properties;
- uncertainty assessment of the derived gridded soil information;
- specifying algorithms to local soil specificities;
- the engagement of remote sensing data with digital soil mapping;
- other related topics.





an Open Access Journal by MDPI

## Editors-in-Chief

### **Dr. Prasad S. Thenkabail**

Senior Scientist (ST), U. S.  
Geological Survey (USGS), USGS  
Western Geographic Science  
Center (WGSC), 2255, N. Gemini  
Dr., Flagstaff, AZ 86001, USA

### **Prof. Dr. Dongdong Wang**

Institute of Remote Sensing and  
Geographic Information Systems,  
Peking University, Beijing, China

## Message from the Editorial Board

*Remote Sensing* is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

## 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), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

**Journal Rank:** JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)

## Contact Us

---

*Remote Sensing* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/remotesensing](http://mdpi.com/journal/remotesensing)  
[remotesensing@mdpi.com](mailto:remotesensing@mdpi.com)  
[X@RemoteSens\\_MDPI](https://twitter.com/RemoteSens_MDPI)