



CALL FOR PAPERS
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

Special Issue on
“Geospatial Data Science in Remote Sensing and its Impact on Environmental Sustainability”

Recently, in remote sensing research uses of sensors on spacecraft, aircraft, ships, ground, and other platforms to design, gather, process, and analyze geospatial data. To handle complicated problems in a geospatial environment, computational geo-intelligence takes into consideration of artificial intelligence techniques that aim to imitate human intelligence and reasoning. The new frontier research era and convergence of deep machine learning and geospatial data science has three main streams that need to be addressed in the current scenario: public governance, environmental monitoring, and sustainable engineering. This special issue is integrating machine learning, cognitive neural computing, advanced data analytics, and optimization opportunities to bring more computation to the remote sensing problems and challenges for environmental sustainability. Further, it is important to make a note that the convergence of deep machine learning and its intelligence techniques has not been adequately investigated from the perspective of geospatial data science research streams (geospatial imaging, geospatial information, acquisition and processing, and sustainable engineering) and its related research issues. Furthermore, there are many noteworthy issues (location based spatial decision support for security and risk assessment, disaster management, location-based health tracking and monitoring, communicable disease/invasive species monitoring and management, etc.) that need to be addressed in the context of deep machine learning, geospatial data science and geo engineering with relate to environmental sustainability.

This special issue intends to give an overview of the state-of-the-art of issues and solution guidelines in the new era of the deep machine learning paradigm and its recent trends of techniques for geospatial data science on its impact on sustainability engineering.

The broad topics include (but are not limited to):

- Machine Learning and Intelligent Systems for geospatial data and sustainable engineering
- Theoretical results on the convergence of deep ML and geospatial data science for geo-engineering
- Automatic control of geospatial dynamic systems and expert Systems in remote sensing
- Big Data Geo-analytics and Geo-visualization
- AI and Deep Randomized Neural Networks for remote sensing and its applications
- Geographic Information Retrieval and mobility data analysis and Geospatial Data, Text mining
- Spatial Data Infrastructures in remote sensing
- Applications of deep learning for environmental monitoring and assessment
- Geospatial data-driven approaches for urban planning and management
- Novel algorithms and techniques for geospatial big data processing

Schedule

Oct 1, 2023: Submission system opening

Apr 30, 2024: Submission system closing

Format

All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on <http://mc.manuscriptcentral.com/jstars>, using the Manuscript Central interface and select the “**Geospatial Data Science in Remote Sensing and its Impact on Environmental Sustainability**” special issue manuscript type. Prospective authors should consult the site <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced).

Please visit http://www.ieee.org/publications_standards/publications/authors/author_templates.html to download a template for transactions. Please note that as of Jan. 1, 2020, IEEE J-STARS has become a fully open-access journal charging a flat publication fee \$1,250 per paper.

Guest Editors

Arun Kumar Sangaiah, VIT University, India (aksangaiah@ieee.org)

Zhou Huang, Peking University, China (huangzhou@pku.edu.cn)

Chitra Venugopal, Oregon Institute of Technology, United States (chitra.venugopal@oit.edu)

Aniket Mahanti, University of Auckland, New Zealand, (a.mahanti@auckland.ac.nz)