



CALL FOR PAPERS

IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing Special Issue on “Digital Technologies Facilitate Urban Sustainable Development”

Urbanization is a defining feature of the 21st century, with cities contributing disproportionately to global GDP, energy consumption, and environmental impacts. While urban areas account for less than 1% of the Earth's land surface, they generate 75% of global GDP, consume 60–80% of energy, and produce 75% of global waste and carbon emissions. Rapid urbanization has brought significant challenges, including resource scarcity, environmental degradation, and social inequality. To address these challenges, the United Nations has set ambitious targets for sustainable development through the 2030 Agenda, particularly focusing on SDG 11: Sustainable Cities and Communities. Achieving SDG 11 requires innovative solutions, and digital technologies—such as artificial intelligence, big data, and cloud computing—have emerged as powerful tools for enhancing urban planning, management, and resilience. The goal of this special issue is to provide a platform for researchers and practitioners to share cutting-edge research, innovations, and best practices in leveraging digital technologies to facilitate urban sustainable development. By fostering interdisciplinary collaboration, this special issue aims to advance the application of geospatial technologies, data-driven decision-making, and smart city solutions to address urban challenges and promote long-term sustainability.

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

- Remote sensing and GIS applications in urban monitoring and planning
- Data fusion and integration for urban systems analysis
- Urban resilience and disaster management using digital technologies
- Digital twins and smart city solutions
- Urban carbon neutrality and sustainable infrastructure
- AI-driven decision support systems for urban planning
- Data privacy and ethical considerations in urban digitalization
- Big data applications in urban mobility and energy management
- Urban green spaces and biodiversity conservation
- Urban SDG assessment and benchmarking using digital tools

Schedule

May. 1, 2025 Submission system opening
Dec. 31, 2025 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 “**Digital Technologies Facilitate Urban Sustainable Development**” 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 since Jan. 1, 2025, IEEE J-STARS, as a fully open-access journal, charges a flat publication fee \$1,800 per paper.

Guest Editors

Zhongchang Sun, International Research Center of Big Data for Sustainable Development Goals, China
(sunzc@aircas.ac.cn)

Jie Chen, Central South University, China (cj2011@csu.edu.cn)

Liang Hong, Yunnan Normal University, China (hongliang20433@hotmail.com)

Chao Yang, China University of Geosciences, China (yangchao@cug.edu.cn)

Xiang Zhang, China University of Geosciences, China (zhangxiang76@cug.edu.cn)