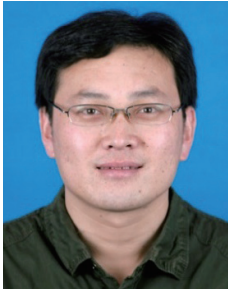


**SPECIAL ISSUE ON ADVANCED GEOAI FOR SMART CITIES:
NOVEL DATA MODELING WITH MULTISOURCE SENSOR DATA**

PREFACE



Multisource sensor data collection and application have become critical trends in smart city research, geospatial science, and social sustainability. With the rapid development of satellite, airborne, IoT, and mobile sensing, urban environments can now be observed through diverse data sources across various scales. These technologies provide unprecedented opportunities to monitor urban dynamics, understand environmental processes, and promote sustainable development.

This special issue focuses on cutting-edge methods and applications of GeoAI, geospatial science, and sensor technologies for smart city studies. The aim is to present recent advances in novel data modeling and intelligent analysis using multisource sensor data. The scope integrates remote sensing, IoT, and urban infrastructure data, covering the entire data processing workflow—from acquisition and fusion to intelligent analysis and 3D visualization.

We have gathered diverse contributions from researchers globally working in GeoAI, remote sensing, and environmental monitoring. This special issue features eight rigorously peer-reviewed high-quality papers broadly classified into two main categories: fundamental technologies and sensor applications.

The technology-oriented papers explore advanced multisource data modeling, information fusion, and intelligent analysis methods. Meanwhile, the application-focused papers address practical challenges in remote sensing interpretation, ecological condition monitoring, and infrastructure-related scenarios. Together, these works highlight critical issues and offer innovative solutions for advancing GeoAI and smart city applications.

Finally, I sincerely thank all authors for sharing their valuable research, the anonymous reviewers for their critical insights, and the editorial staff. Special thanks go to Ms. Naoko Makino for her invaluable help and encouragement and for inviting me to edit this special issue, alongside the editorial team of *Sensors and Materials* for their professional assistance in publishing this collection.

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