

SPECIAL ISSUE ON GEOGRAPHIC SPATIOTEMPORAL ANALYSIS AND SOCIAL SENSING TECHNOLOGY: PART 5

PREFACE



In recent years, the rapid development of information and communication and the Internet of Things technology, the widespread application of wireless sensors, handheld intelligent terminal devices, and people's dependence on the Internet and mobile communication networks have generated a large amount of spatiotemporal big data with individual labels and spatiotemporal semantic information, making it possible to track and observe the spatial movement of individuals over a long time and with high precision. Geospatial artificial intelligence (GeoAI) refers to the interdisciplinary research direction that combines geography, earth sciences, and artificial intelligence. It seeks to solve major scientific and engineering challenges in the huge human–environment interaction system through spatial intelligence in machines to improve the dynamic sensing, intelligent reasoning and knowledge discovery of geographic phenomena and earth science processes. Therefore, with the rapid development of

remote sensing sensors and information communication technology, exploring the application of intelligent sensors, remote sensing, artificial intelligence, social perception, spatiotemporal big data and other technologies in geographic information science can give rise to strong methods and technical support for geographical research.

This special issue focuses on the research and application of multisensor data, remote sensing technology, geographic information technology, and artificial intelligence technology in geographic spatiotemporal data analysis and social perception. Part 1 of this special issue contains 11 papers, which focus on research on ecological environment monitoring and analysis based on multisource remote sensing data, extraction methods of various sensor monitoring data in cities by means of artificial intelligence technology, and the technical methods and applications of intelligent surveying and mapping, providing theoretical and practical basis for intelligent extraction and application of remote sensing images, improvement of urban ecological environment quality, and urban green development. These themes provide theoretical and practical basis for intelligent extraction and application of remote sensing images,

improvement of urban ecological environment quality, and urban green development. It can provide many useful geographic information technologies for practical methods in new basic surveying, urban planning, and green development.

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