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# Innovations in Urban Sensing and Intelligent Infrastructure Management

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## **Message from the Guest Editors**

Dear Colleagues,

In the ever-evolving landscape of urban development, the integration of smart technologies into city and building management has become paramount. This **Special Issue** aims to explore the forefront of urban sensing, spatial data science and GeoAI, highlighting innovations that are transforming how we collect, analyze and apply data to create more efficient, sustainable and livable urban environments.

This issue invites original research and comprehensive reviews on cutting-edge methodologies and applications of technologies such as big data analytics, LiDAR and Simultaneous Localization and Mapping (SLAM) in the context of smart cities. *Contributions may include, but are not limited to, advancements in urban data collection, high-precision mapping, real-time monitoring and the integration of spatial data into city planning and management*. Through a multidisciplinary lens, we seek to delve into how these technologies can lead to smarter decision-making and optimized resource allocation, thereby enhancing the quality of life for urban residents.







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## **Editor-in-Chief**

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### Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance. interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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