# Reconstruction of 3D Buildings Models and 3D Buildings Extraction from High-Resolution Geospatial Data

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## Message from the Guest Editors

Dear Colleagues,

Recently, there has been considerable demand for 3D building models in several applications, including the design and construction of infrastructure in the urban environment, 3D/city modeling, and building information modeling (BIM). Additionally, the availability of high-resolution, multi-source geospatial data, such as vertical and oblique terrestrial imagery, LIDAR data, UAV data, etc., has facilitated the high-quality reconstruction of 3D object models. Furthermore, this has led to the development of automated algorithms for the robust extraction of buildings from high-resolution imagery and LIDAR data.

In this Special Issue, we aim to compile research articles that address various aspects of building extraction from high-resolution geospatial data, 3D building reconstruction, as well as building extraction from imagery and LIDAR data. Review contributions and papers describing new data/concepts are also welcomed.

**Special** Issue

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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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