



Toward Equitable, Low-Carbon, and Liveable Cities: Quantitation, Effects Analysis, and Optimization of the Indoor and Outdoor Built Environment

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Deadline for manuscript submissions:

closed (22 April 2024)

Message from the Guest Editors

This special issue aims to offer a platform for sharing up-to-date knowledge on promoting equitable, low-carbon, and liveable cities from the perspective of new quantitation, effects analysis, and optimization of the building environment. The findings are expected to carry rich policy or practice implications for sustainable urban planning strategies and green building technologies.

Specifically, we aim to collect high-standard original theoretical or empirical research, case studies, and review papers with potential topics including but not limited to:

1. The relationship between urban geometry/form and building sector energy consumption;
2. Carbon emission reduction strategies in the building sector (construction, operation, and demolition);
3. 3D urban/building morphology and UHI effect;
4. The outdoor and indoor building environment and their health and environmental effect;
5. The spatial characteristics and human perception of the built environment and associated environmental justice.





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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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