Special Issue

The Role of Windows and Building Facades in Energy Efficiency and Indoor Environments

Message from the Guest Editors

We are pleased to announce this Special Issue of Buildings, entitled "The Role of Windows and Building" Facades in Energy Efficiency and Indoor Environments". Windows and building facades play critical roles in determining the environmental performance of buildings and, as the demand for zero-energy buildings and comfortable and healthy indoor environments continues to rise, the design and operational technologies of highperformance building envelopes have become indispensable. This Special Issue aims to present stateof-the-art research, advanced methodologies, and innovative technologies related to window systems, façade performance, and their impact on building energy consumption and indoor environmental quality. Potential topics of interest include, but are not limited to, the following thematic areas:

- High-performance façade systems;
- Advanced window, glazing, and shading technologies;
- Dynamic and smart windows;
- Thermal environment assessment;
- Daylighting and visual environment analysis;
- Ventilation and indoor air quality;
- Zero-energy and low-energy buildings;
- Façade control algorithms and integrated optimization;
- Building performance simulation.

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Deadline for manuscript submissions

30 September 2026



an Open Access Journal by MDPI

Impact Factor 3.1 CiteScore 4.4



mdpi.com/si/263537

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About the Journal

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.

Editor-in-Chief

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