



Building Thermal Environment: Improving Indoor Comfort by Optimizing Ventilation Systems

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Message from the Guest Editors

Dear Colleagues,

This Special Issue offers an insightful exploration of the critical relationship between indoor thermal comfort and the efficient operation of ventilation systems. With a primary focus on elevating the quality of indoor spaces, this collection of articles brings to the forefront the latest strategies, technologies, and innovative approaches dedicated to optimizing ventilation systems.

Encompassing a wide spectrum of topics, this Special Issue delves into cutting-edge HVAC systems, passive ventilation techniques, and advanced sensor-driven control systems. These components collectively work towards creating healthier and more comfortable indoor environments while simultaneously improving energy efficiency.

The integration of natural ventilation strategies alongside mechanical systems is a central theme, illustrating the harmonious balance between sustainable, energy-efficient building designs and occupant well-being.

For more information about the special issue, please click on the link below:

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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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