Special Issue

Development of Indoor Environment Comfort

Message from the Guest Editors

Indoor air quality and thermal comfort significantly affect the wellbeing of indoor occupants; however, creating healthy and comfortable indoor environments consumes a large proportion of building energy. New developments in indoor comfort and health are emerging, such as the following: non-uniform thermal environments, personalized thermal comfort, thermal adaptations, interactions of thermal comfort with other comfort domains, AI-powered thermal comfort models, intelligent algorithm-based control methods, advanced air distribution, graded ventilation, interactive cascaded ventilation, vortex ring ventilation, intermittent demand-controlled ventilation, and airborne infection risk control. These advanced developments not only contribute to occupants' satisfaction and health but also save energy, a prospect that is of particular interest in this Special Issue. Relevant topics covered by this Special Issue include, but are not limited to, the following subjects:

- Thermal comfort;
- Indoor air quality;
- Airborne infection risk control;
- Advanced air distribution;
- Building ventilation;
- Radiant cooling;
- Radiant heating.

Guest Editors

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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.

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