

Radiant Cooling and Heating Systems in Buildings

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Message from the Guest Editors

Since the 21st century, increasing attention has been given to energy savings due to emission-reduction goals. This Special Issue aims to gather significant research contributions focusing on and linking both practical applications and scientific research on existing and new methods for radiant cooling and heating systems. We welcome all types of articles reporting original, pioneering research with experimental, theoretical, and numerical findings revealing pertinent aspects of radiant cooling and heating system in buildings. Topics of interest for publication include, but are not limited to:

Deadline for manuscript
submissions:

30 June 2024

- Artificial intelligence methods for prediction the cooling/heating load;
- Existing and new statistical methods to handle radiant systems;
- Advanced building performance analyses for radiant systems;
- Thermal comfort evaluation for radiant asymmetry;
- Condensation risk analyses on radiant cooling surfaces;
- Energy efficiency for thermo-active building systems;
- Assessment and optimization of the operation control strategy;
- Renewable energy utilization in buildings for radiant systems.



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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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