Special Issue

Heat Pump Systems and Thermal Technology for Buildings

Message from the Guest Editors

At present, energy utilization and carbon emissions have become important issues on a global scale and have received great attention from the international community. Therefore, how to reduce the energy consumption and carbon emissions of buildings while pursuing higher thermal comfort has become the focus of scholars in the architecture field. Improving the heat transfer performance of buildings, reducing the energy demand for heating and cooling in buildings, and increasing the proportion of renewable energy are effective ways to save energy and reduce carbon in buildings. Despite the existence of many studies dedicated to exploring energy utilization and carbon emissions, there are still many challenges and opportunities for energy saving and emission reduction in building heating and cooling. The Special Issue seeks papers that expand upon the current literature and understanding of the buildings thermal technology and heat pump systems. Papers discussing how to use advanced building technology and envelope high-performance buildings are also welcome. For more information, please visit the link to the Special Issue: https://www.mdpi.com/si/179377.

Guest Editors

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Deadline for manuscript submissions

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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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