Special Issue

The Effect of Thermal Comfort and Indoor Air Quality on Energy Consumption

Message from the Guest Editors

The challenge of maintaining the indoor environment is ever more important nowadays considering the amount of time occupants spend indoors. HVAC control systems increase in complexity over time. While in past decades, maintaining thermal comfort was the primary goal set by building energy management personnel, the issue of healthy indoor air quality (IAQ) added a new paradigm to this optimization problem. Furthermore, the COVID-19 crisis has amplified the necessity of maintaining IAQ. Controlling IAQ from the perspective of health impacts poses new challenges to the HVAC systems and imposes excess energy use. In this Special Issue, we invite researchers to submit high-quality reviews, perspectives, or original research articles on the following topics, among others: Occupant-centric ventilation for improving the indoor environment; Monitoring and assessment requirements to maintain a healthy indoor environment;

The effect of aggressive ventilation on human health; Optimizing energy consumption without compromising the indoor environment;

The role of intelligent building technologies on energy consumption.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

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