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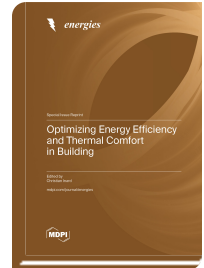
*Special Issue Reprint*

## **Optimizing Energy Efficiency and Thermal Comfort in Building**

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The eight articles proposed in this Special Issue cover various aspects of energy efficiency and thermal comfort optimization, such as simulation, control, multi-objective optimization, and decision making.

First, there are two review papers, which deal with overheating and guidelines embedded in international standards and national building codes, and building performance optimization through the benefits of retrofits, respectively. Then, different control and optimization strategies are developed and discussed in the following four articles. In the first, a multi-objective optimization design method of a university student center based on low energy consumption and thermal comfort is conducted. In the second paper, a decision-making methodology for building thermal design, considering the optimal selection and operation of multi-energy systems focused on renewable energy, is created. The third article is dedicated to the optimization of a hydronic system in a commercial building by using predictive control with limited data. The content of the fourth article describes the development of a smart thermostat with validation thanks to a surrogate model of a climatic chamber. The last two articles of this Special Issue deal with indoor environmental quality (IEQ). To this end, the concentration of CO<sub>2</sub> in a working area with a gas infrared heater and an air-exchange system was studied. Lastly, the effects of exterior glazing on thermal comfort in office buildings were investigated.



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