Special Issue

Shallow Geothermal Energy Systems for Heating and Cooling in Existing European Buildings: Challenges and Opportunities

Message from the Guest Editor

The European Union's carbon neutrality goals require significant improvements in the energy efficiency of existing buildings. Shallow geothermal energy (SGE) systems, known for their efficiency and sustainability, have emerged as a promising solution for heating and cooling in buildings.

This Special Issue aims to gather multidisciplinary research to technological advancements, it will focus on the role of incentive mechanisms, the use of game models to address stakeholder interactions, and policy suggestions tailored to promote SGE system adoption. The Special Issue will also highlight case studies from different European climates, offering insights into the regional adaptability of these systems. For further reading, please follow the link to the Special Issue Website at:
https://www.mdpi.com/journal/buildings/special_issues/P9FXKBBR57

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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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