

Special Issue

Ground Source Heat Pump and Renewable Energy Hybridization

Message from the Guest Editors

Although research on geothermal energy has progressed over the years, the coupling of this renewable energy resource to energy systems, such as heat pumps, continues to develop. This is further stimulated by the drive to achieve decarbonization while meeting the heating and cooling demands of buildings and other structures. This open access Special Issue aims to provide an effective channel for scholars to share their innovative research work, focusing on coupling ground-source heat pumps to the geothermal field, as well as their integration to other renewable energy sources and systems to facilitate the hybridization of heating and cooling processes and to achieve overall very low, or zero, carbon emissions. Some of the suggested themes may include, but are not limited to, the following:

- Small-scale shallow-ground heat pump systems for the space heating and cooling of buildings;
- Hybrid solar/geothermal systems for industrial processes;
- Centralized and decentralized district heating and cooling using ground-source heat pumps;
- Long-term performance analysis of geothermal heat pump systems;
- Environmental and cost/benefit analysis of ground-source heat pump systems.

Guest Editors

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