Special Issue

Novel Design of Solar Assisted Ground Source Heat Pump Systems

Message from the Guest Editors

Awareness of the increase in the global temperature continuously grows, and a new target has been set by the Paris Agreement. The use of hydrocarbon-based fuels forms the lion's share of CO2e emissions. The building sector is one of the largest energy consumers globally, with the majority used for heating ventilation and air conditioning (HVAC) systems. Currently, solar and shallow geothermal systems can be used to displace conventional energy systems based on hydrocarbons. Although both technologies are well developed, the combined concept of the solar-assisted ground source heat pump (SAGSHP) system has not been thoroughly investigated. In recent decades, effort has been made to evaluate the SAGSHP systems for different climatic conditions, but no line can be drawn regarding their best design practice. This Special Issue of *Energies,* "Novel design of solar assisted ground source heat pump systems", is focused on the new methodologies, operation strategies, system topologies, optimization frameworks and techniques that can assist the applicability of the SAGSHP systems.

Guest Editors

Prof. Dr. Axaopoulos Petros

Department of Mechanical Engineering, University of West Attica, Campus II. Thivon 250, 12241 Aegaleo, Greece

Dr. Evangelos Sakellariou

Department of Mechanical Engineering, University of West Attica, Campus II. Thivon 250, 12241 Aegaleo, Greece

Deadline for manuscript submissions

closed (15 April 2022)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/79310

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/journal/energies

About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)