



Ground-Source Heat Pumps: Fundamentals, Experiments and Applications

By Ioan Sarbu, Calin Sebarchievici

Download now

Read Online ➔

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications

By Ioan Sarbu, Calin Sebarchievici

Ground-Source Heat Pumps presents the theory and some of the most recent advances of GSHPs and their implementation in the heating/cooling system of buildings. The authors explore the thermodynamic cycle with calculation, operation regimes and economic indicators and GHG emissions of a vapor compression heat pump. They go on to examine substitution strategies of non-ecological refrigerants and types of compressors and heat pumps, before delving into the different GSHP systems, as well as their compared economic, energy and environmental performances using classical and optimized adjustment for various operating modes. Surface water heat pumps and ground water heat pumps are covered, and special focus is given to both vertical and horizontal ground-coupled heat pump systems, for which modelling and simulation is discussed, and experimental systems are described. Due to its advanced approach to the subject, this book will be especially valuable for researchers, graduate students and academics, and as reference for engineers and specialists in the varied domains of building services.

- Explores fundamentals and state-of-the-art research, including ground-coupled heat pump (GCHP) systems.
- Includes performance assessment and comparison for different types of GSHP, numerical simulation models, practical applications of GSHPs with details on the renewable energy integration, information on refrigerants, and economic analysis.

↓ [Download Ground-Source Heat Pumps: Fundamentals, Experiment ...pdf](#)

📖 [Read Online Ground-Source Heat Pumps: Fundamentals, Experime ...pdf](#)

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications

By Ioan Sarbu, Calin Sebarchievici

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici

Ground-Source Heat Pumps presents the theory and some of the most recent advances of GSHPs and their implementation in the heating/cooling system of buildings. The authors explore the thermodynamic cycle with calculation, operation regimes and economic indicators and GHG emissions of a vapor compression heat pump. They go on to examine substitution strategies of non-ecological refrigerants and types of compressors and heat pumps, before delving into the different GSHP systems, as well as their compared economic, energy and environmental performances using classical and optimized adjustment for various operating modes. Surface water heat pumps and ground water heat pumps are covered, and special focus is given to both vertical and horizontal ground-coupled heat pump systems, for which modelling and simulation is discussed, and experimental systems are described. Due to its advanced approach to the subject, this book will be especially valuable for researchers, graduate students and academics, and as reference for engineers and specialists in the varied domains of building services.

- Explores fundamentals and state-of-the-art research, including ground-coupled heat pump (GCHP) systems.
- Includes performance assessment and comparison for different types of GSHP, numerical simulation models, practical applications of GSHPs with details on the renewable energy integration, information on refrigerants, and economic analysis.

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici **Bibliography**

- Sales Rank: #4485376 in Books
- Published on: 2015-10-26
- Released on: 2015-10-12
- Original language: English
- Number of items: 1
- Dimensions: 9.00" h x .49" w x 6.00" l, .0 pounds
- Binding: Paperback
- 216 pages

 [Download Ground-Source Heat Pumps: Fundamentals, Experiment ...pdf](#)

 [Read Online Ground-Source Heat Pumps: Fundamentals, Experime ...pdf](#)

Download and Read Free Online Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici

Editorial Review

About the Author

Ioan Sarbu is a professor and head of the Department of Building Services Engineering at the Polytechnic University of Timisoara, Romania. He obtained a diploma in Civil engineering from the “Traian Vuia” Polytechnic Institute of Timisoara in 1975 and a Ph.D. degree in Civil engineering from the Timisoara Technical University in 1993. His main research interests are related to refrigeration systems and heat pumps. He is also active in the field of solar energy conversion, water distribution systems and numerical simulations and optimizations in building services. He has published books, chapters, and numerous articles in indexed journals and proceedings of international conferences. He is also author of five patent certificates and of up to twenty computer programs.

Calin Sebarchievici is a lecturer of the Building Services Engineering Department at the Polytechnic University of Timisoara, Romania. He obtained a diploma in Building services engineering and a Ph.D. degree in Civil engineering from the Polytechnic University of Timisoara in 2003 and 2013, respectively. His research is focused on heat pumps, refrigeration systems and solar energy conversion. He is co-author of some books, chapters, and journal and conference proceeding articles.

Users Review

From reader reviews:

William Leighty:

This Ground-Source Heat Pumps: Fundamentals, Experiments and Applications book is not really ordinary book, you have it then the world is in your hands. The benefit you get by reading this book is usually information inside this publication incredible fresh, you will get facts which is getting deeper a person read a lot of information you will get. This Ground-Source Heat Pumps: Fundamentals, Experiments and Applications without we understand teach the one who examining it become critical in considering and analyzing. Don't be worry Ground-Source Heat Pumps: Fundamentals, Experiments and Applications can bring when you are and not make your tote space or bookshelves' turn out to be full because you can have it within your lovely laptop even mobile phone. This Ground-Source Heat Pumps: Fundamentals, Experiments and Applications having great arrangement in word along with layout, so you will not feel uninterested in reading.

Cleveland Wheeler:

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications can be one of your nice books that are good idea. Most of us recommend that straight away because this reserve has good vocabulary that could increase your knowledge in vocab, easy to understand, bit entertaining but still delivering the information. The author giving his/her effort to put every word into satisfaction arrangement in writing Ground-Source Heat Pumps: Fundamentals, Experiments and Applications however doesn't forget the main stage, giving the reader the hottest in addition to based confirm resource details that maybe you can be one among it. This great information could drawn you into new stage of crucial thinking.

Adrian Kao:

Are you kind of busy person, only have 10 or perhaps 15 minute in your day time to upgrading your mind ability or thinking skill possibly analytical thinking? Then you are experiencing problem with the book in comparison with can satisfy your short space of time to read it because pretty much everything time you only find guide that need more time to be go through. Ground-Source Heat Pumps: Fundamentals, Experiments and Applications can be your answer given it can be read by you actually who have those short extra time problems.

Ralph Pettie:

As a pupil exactly feel bored to reading. If their teacher asked them to go to the library in order to make summary for some e-book, they are complained. Just minor students that has reading's heart and soul or real their leisure activity. They just do what the trainer want, like asked to go to the library. They go to generally there but nothing reading seriously. Any students feel that reading through is not important, boring in addition to can't see colorful pictures on there. Yeah, it is to become complicated. Book is very important for you personally. As we know that on this period of time, many ways to get whatever we want. Likewise word says, ways to reach Chinese's country. Therefore , this Ground-Source Heat Pumps: Fundamentals, Experiments and Applications can make you sense more interested to read.

**Download and Read Online Ground-Source Heat Pumps:
Fundamentals, Experiments and Applications By Ioan Sarbu, Calin
Sebarchievici #W9RMB0Z7LSK**

Read Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici for online ebook

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici books to read online.

Online Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici ebook PDF download

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici Doc

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici Mobipocket

Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici EPub

W9RMB0Z7LSK: Ground-Source Heat Pumps: Fundamentals, Experiments and Applications By Ioan Sarbu, Calin Sebarchievici