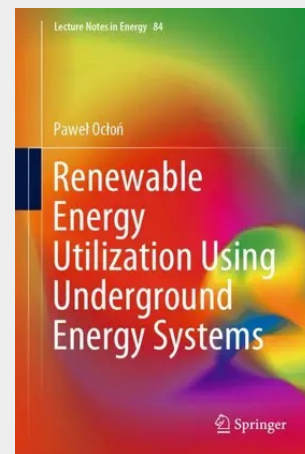


Renewable Energy Utilization Using Underground Energy Systems

This book discusses heat transfer in underground energy systems. It covers a wide range of important and practical topics including the modeling and optimization of underground power cable systems, modeling of thermal energy storage systems utilizing waste heat from PV panels cooling. Modeling of PV pannels with cooling.

While the performance of energy systems which utilize heat transfer in the ground is not yet fully understood, this book attempts to make sense of them. It provides mathematical modeling fundamentals, as well as experimental investigation for underground energy systems. The book shows detailed examples, with solution procedures. The solutions are based on the Finite Element Method and the Finite Volume Method. The book allows the reader to perform a detailed design of various underground energy systems, as well as enables them to study the economic aspects and energy efficiency of underground energy systems. Therefore, this text is of interest to researchers, students, and lecturers alike.

This book discusses heat transfer in underground energy systems. It covers a wide range of important and practical topics including the modeling and optimization of underground power cable systems, modeling of thermal energy storage systems utilizing waste heat from PV panels cooling. Modeling of PV pannels with cooling. While the performance of energy systems which utilize heat transfer in the ground is not yet fully understood, this book attempts to make sense of them. It provides mathematical modeling fundamentals, as well as experimental investigation for underground energy systems. The book shows detailed examples, with solution procedures. The solutions are based on the Finite Element Method and the Finite Volume Method. The book allows the reader to perform a detailed design of various underground energy systems, as well as enables them to study the economic aspects and energy efficiency of underground energy systems. Therefore, this text is of interest to researchers, students, and lecturers alike.



160,49 €

149,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783030752279

Medium: Buch

ISBN: 978-3-030-75227-9

Verlag: Springer

Erscheinungstermin: 26.06.2021

Sprache(n): Englisch

Auflage: 1. Auflage 2021

Serie: Lecture Notes in Energy

Produktform: Gebunden

Gewicht: 453 g

Seiten: 173

Format (B x H): 160 x 241 mm

