1. Record Nr. UNINA9910155445103321

| | |
|---|---|
| Autore | Reda Francesco |
| Titolo | Solar Assisted Ground Source Heat Pump Solutions : Effective Energy Flows Climate Management / / by Francesco Reda |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017 |
| ISBN | 3-319-49698-0 |
| Edizione | [1st ed. 2017.] |
| Descrizione fisica | 1 online resource (XX, 56 p. 36 illus., 22 illus. in color.) |
| Collana | SpringerBriefs in Applied Sciences and Technology, , 2191-530X |
| Disciplina | 697.7 |
| Soggetti | Renewable energy resources<br>Energy systems<br>Building construction<br>Renewable and Green Energy<br>Energy Systems<br>Building Physics, HVAC |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters. |
| Nota di contenuto | 1. Ground source heat pump -- 2. Solar thermal collectors -- 3. Solar assisted ground source heat pump -- 4. Performance assessment in different climates -- 5. Conclusion. |
| Sommario/riassunto | This book analyses solar-assisted ground-source heat pump systems, a technology meant for producing heating and cooling energy for buildings. It focuses on ground source heat pump, reversible central heating and cooling system that transfer heat from or to the ground, applications which use solar thermal collectors. Providing deep insights into energy-saving, solar thermal system operating strategies, it illustrates examples of useful configurations and controlling approach for different climates for different vertical ground heat exchanger depths. Offering an overview of solar assisted ground source heat pump systems, including design principles and energy-performance data for different climates, it is a valuable resource for designers and scientists who focus on building heating and cooling technologies. |

2. Record Nr. UNINA9910557148003321

| | |
|---|---|
| Autore | Citarella Roberto |
| Titolo | Fatigue and Fracture Behaviour of Additively Manufactured Mechanical Components |
| Pubbl/distr/stampa | Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 |
| Descrizione fisica | 1 online resource (150 p.) |
| Soggetti | History of engineering and technology |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Sommario/riassunto | The advent of additive manufacturing (AM) processes applied to the fabrication of structural components creates the need for design methodologies supporting structural optimization approaches that take into account the specific characteristics of the process. While AM processes enable unprecedented geometrical design freedom, which can result in significant reductions of component weight, on the other hand they have implications in the fatigue and fracture strength due to residual stresses and microstructural features. This is linked to stress concentration effects and anisotropy that still warrant further research. This Special Issue of Applied Sciences brings together papers investigating the features of AM processes relevant to the mechanical behavior of AM structural components, particularly, but not exclusively, from the viewpoints of fatigue and fracture behavior. Although the focus of the issue is on AM problems related to fatigue and fracture, articles dealing with other manufacturing processes with related problems are also be included. |