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| Titolo                  | Fundamentals and innovations in solar energy / / Sri Niwas Singh, Prabhakar Tiwari, Sumit Tiwari, editors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| ISBN                    | 981-336-456-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Descrizione fisica      | 1 online resource (viii, 497 pages) : illustrations (some color), charts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Collana                 | Energy systems in electrical engineering, , 2199-8582                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Disciplina              | 621.47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Soggetti                | Solar energy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Nota di bibliografia    | Includes bibliographical references.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Nota di contenuto       | 1. Introduction to solar energy -- 2. Solar photovoltaic (PV) generation -- 3. Solar thermal power generation -- 4. Innovative applications of solar energy -- 5. Smart energy system -- 6. A holistic review of smart grid contribution toward energy sustainability -- 7. Short-term solar PV generation forecast using neural networks and deep learning models -- 8. Off-grid solar lighting testing and reliability -- 9. Thermal energy storage for solar energy -- 10. Solar energy pricing -- 11. Advances in hybrid solar system -- 12. Maximum power point tracking of photovoltaic renewable energy system using a new method based on turbulent flow of water-based optimization (TFWO) under partial shading conditions -- 13. Phase change materials and its applications -- 14. Sensitivity analysis in solar systems -- 15. Environmental feasibility of solar hybrid systems -- 17. Impact of the photovoltaic integration on the hydrothermal dispatch on power systems -- 18. Potential and financial analysis of the floating PV in hydropower dams of Thailand -- 19. Voltage fault ride-through operation of solar PV generation. |
| Sommario/riassunto      | This book covers the basic principles and applications of solar energy systems. Topics include solar PV generation, solar thermal generation, smart grid and sustainability, solar energy forecasting, and thermal storage of solar energy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |