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Collana	Power Systems Series
Disciplina	621.319
Soggetti	Electric power distribution Electric power production Photovoltaic power generation Renewable energy sources Solar energy
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Fundamentals of Solar Energy -- Photovoltaic Cells and Systems -- Battery Technologies -- Concentrators -- Solar PV/T Systems -- Smart Grids and Solar Energy -- Applications of Solar Energy -- Performance Assessment and Profitability.
Sommario/riassunto	Solar Energy Engineering and Applications gives a general and concise presentation of solar energy from a practical engineering perspective. The book provides readers with a comprehensive, accessible, and intuitive introduction to proven methods and tools for designing, implementing, and monitoring of solar energy systems and associated auxiliary technologies without covering detailed in-depth physics. Coverage includes key aspects of solar energy such as photovoltaic solar cells and systems, battery technologies, solar concentrators, and hybrid photovoltaic/thermal systems. Application areas such as homes, buildings, solar farms, street lighting, vehicles, and dryers are discussed. The methods for connecting solar farms and other photovoltaic installations to power distribution systems are explored in the context of smart grid technologies that facilitate such connections.

The book will be a valuable professional reference for practicing engineers and researchers involved in solar energy applications. Offers a practical introduction to solar energy systems without in-depth physics; Covers key application areas; Looks at solar hybrid photovoltaic/thermal systems.

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