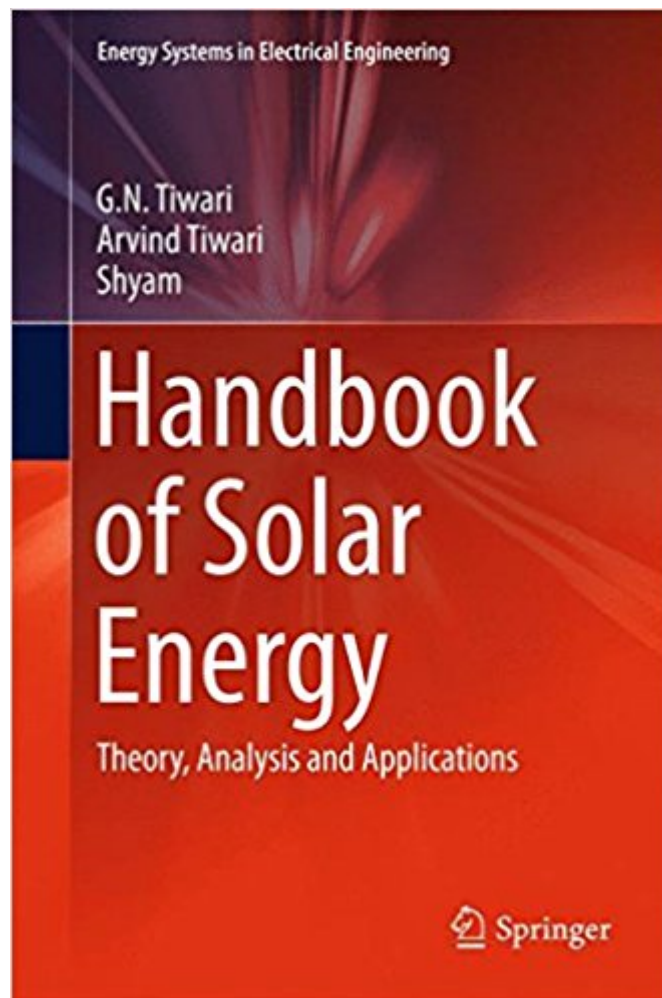




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Handbook Of Solar Energy: Theory, Analysis And Applications (Energy Systems In Electrical Engineering)



Synopsis

This handbook aims at providing a comprehensive resource on solar energy. Primarily intended to serve as a reference for scientists, students and professionals, the book, in parts, can also serve as a text for undergraduate and graduate course work on solar energy. The book begins with availability, importance and applications of solar energy, definition of sun and earth angles and classification of solar energy as thermal and photon energy. It then goes onto cover day lighting parameters, laws of thermodynamics including energy and exergy analysis, photovoltaic modules and materials, PVT collectors, and applications such as solar drying and distillation. Energy conservation by solar energy and energy matrices based on overall thermal and electrical performance of hybrid system are also discussed. Techno-economic feasibility of any energy source is the backbone of its success and hence economic analysis is covered. Some important constants, such as exercises and problems increase the utility of the book as a text.

Book Information

Series: Energy Systems in Electrical Engineering

Hardcover: 764 pages

Publisher: Springer; 1st ed. 2016 edition (July 29, 2016)

Language: English

ISBN-10: 9811008051

ISBN-13: 978-9811008054

Product Dimensions: 6.2 x 1.8 x 9.2 inches

Shipping Weight: 3.3 pounds (View shipping rates and policies)

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