



Power Systems Engineering: An online reading list from the IET Library



These ebooks and ejournals, available via the <u>IET Virtual Library</u> have been selected on the topic of power systems engineering. They cover the production, distribution and consumption of energy and power.

Ebooks (provided by EBSCO and Knovel)

Carbon Dioxide Emission Management in Power Generation, Lars O. Nord and Olav Bolland. (2020). This book offers a clear understanding and overview of thermal power plants in particular and of carbon dioxide capture and storage in general, for graduate students and practicing process engineers.

Thermodynamic Analysis and Optimization of Geothermal Power Plants, Can Ozgur Colpan, Mehmet Akif Ezan and Onder Kizilkan. (2021). This book guides engineers on the analysis and optimization of geothermal power plants through conventional and innovative methods.

Cogeneration Power Plants - Planning and Evaluation, Joel K. Wilson. (2019). This book is intended to help those interested in cogeneration power plants by laying out a thorough and proven planning methodology for new facilities, as well as an evaluation methodology for existing facilities.

Smart Hybrid AC/DC Microgrids: Power Management, Energy Management, and Power Quality Control, Farzam Nejabatkhah, Hao Tian and Yunwei Ryan Li. (2023). This book addresses smart hybrid microgrids power management, energy management, communications, power converter control, power quality, renewable generation integration, energy storage, and more.

Optimal Planning of Smart Grid With Renewable Energy Resources, Naveen Jain et al. (2022). Covering topics such as electric drives and energy systems, this publication is ideal for researchers, academicians, industry professionals, engineers, scholars, instructors, and students.

<u>Green and Smart Technologies for Smart Cities, Pradeep Tomar and Gurjit Kaur. (2020).</u> The book starts with an overview of the role of cities in climate change and environmental pollution worldwide, followed by the concept description of smart cities and their expected features, focusing on green technology innovation.

Smart Grid Systems: Modeling and Control, N. Ramesh Babu. (2019). This book provides a comprehensive discussion from a number of experts and practitioners and describes the challenges and the future scope of the technologies related to smart grids.

Wind and Solar Power Systems: Design, Analysis, and Operation, Mukund R. Patel and Omid Beik. (2021). This book provides technological and socio-economic coverage of renewable energy. It discusses wind power technologies, solar photovoltaic technologies, large-scale energy storage technologies, and ancillary power systems.

Electric System Operations: Evolving to the Modern Grid, Mani Vadari. (2020). This book presents the convergence of the systems used in the grid operations of today and addresses the emerging needs of the smart grid operations of tomorrow.

Energy Storage for Power System Planning and Operation, Zechun Hu. (2020). Written for power system engineers and researchers, this book introduces the application of large-scale energy storage for the optimal operation and planning of power systems.

<u>Electric Power System Fundamentals, Savador Acha Daza. (2016).</u> This comprehensive resource presents the fundamentals of power systems, including the theory, practical steps, and methods used in the design and management of energy systems.

Energy Storage: Systems and Components, Alfred Rufer. (2018). This book will provides an overview of the development of new solutions and products that address key topics, including electric/hybrid vehicles, ultrafast battery charging, smart grids, renewable energy, and reduction of energy consumption.

Ejournals (provided by EBSCO)

<u>Energies.</u> (Covers topics related to energy sources, systems, policy, and management.)

Energy Future. (Innovations in energy and power.)

<u>Journal of Power Technologies</u>. (Covers all aspects of the science, technology and developing of turbomachinery, boilers, hydro power, nuclear energy, fuel cells, renewable energy, thermodynamics.)

<u>Wind Engineering.</u> (Devoted to the technology of wind energy; includes papers on the aerodynamics of rotors and blades, machine subsystems and components.)

<u>Energy, Sustainability & Society.</u> (Covers various aspects of energy production, energy sources and power generation with a focus on sustainability.)

<u>International Journal of Sustainable Energy.</u> (Covers biomass, wave generators and wave power. Examines experimental, theoretical, and applied results.)

<u>Worldwide Energy.</u> (Provides news & information on all types of energy sources and applications including renewables.)

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- Communities and Networks
- Factfiles
- IET Academy
- IET Digital Library
- IET Renewable Power Generation
- Technical Webinars

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