

May 2024

Power Generation and Transmission:

An online reading list from the IET Library



These eBooks and eJournals, available via the [IET Library](#), have been selected on the topics of power generation and transmission. They cover topics such as grids, nuclear power, and smart technologies.



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Contents

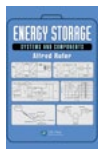
– eBooks

- [Energy Storage](#)
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- [Smart Technologies](#)

– eJournals

eBooks

Energy Storage



[Energy Storage : Systems and Components, Alfred Rufer. \(2018\).](#) This book provides an overview of the development of new solutions and products in energy storage.



[Energy Storage for Power System Planning and Operation, Zechun Hu. \(2020\).](#) An authoritative guide to large-scale energy storage technologies and applications for power system planning and operation.

Grids



[Distributed Power Resources : Operation and Control of Connecting to the Grid, Ruisheng Li. \(2019\).](#) Presents research and development, lists relevant technologies, and draws on experience to tackle practical problems in the operation and control of distributed power.



[Electric System Operations: Evolving to the Modern Grid, Mani Vadari. \(2020\).](#) APresents the systems used in the grid today and addresses the emerging needs of the smart grid.

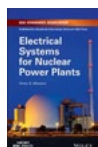


[Microgrid Planning and Design : A Concise Guide, Hassan Farhangi and Geza Joos. \(2019\).](#) A practical guide to microgrid systems architecture, design topologies, control strategies and integration approaches.



[Power After Carbon : Building a Clean, Resilient Grid, Peter Fox-Penner. \(2020\).](#) Provides actionable recommendations for anyone involved with or relying on the electric power system.

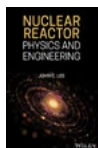
Nuclear Power



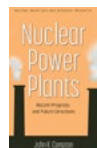
[Electrical Systems for Nuclear Power Plants, Dr. Omar S. Mazzoni. \(2018\).](#) Covers all aspects of electrical systems for nuclear power plants.



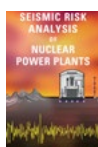
[Nuclear Power Explained, Dirk Eidemüller. \(2021\).](#) This book explains everything you would want to know about nuclear power in a compelling and accessible way.



[Nuclear Reactor : Physics and Engineering, John C. Lee. \(2020\).](#) An introductory text for broad areas of nuclear reactor physics that offers information on the operation of nuclear reactors.



[Nuclear Power Plants: Recent Progress and Future Directions, John K. Compton. \(2022\).](#) Presents recent research on nuclear power plants.



[Seismic Risk Analysis of Nuclear Power Plants, Wei-Chau Xie et al. \(2019\).](#) Offers a systematic and comprehensive introduction to seismic risk analysis of critical engineering structures focusing on nuclear power plants.

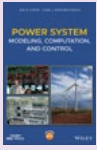
Power Systems



Power Electronics Handbook, Muhammad H. Rashid, (2023). Examines the foundations of power electronics, power semiconductor devices, and power converters.

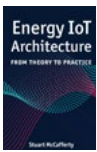


Power Generation Technologies, Paul Breeze. (2019). Explores the economic and environmental costs and risk factors of various energy sources.

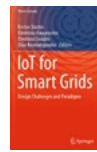


Power System Modeling, Computation, and Control, Joe H. Chow and Juan J. Sanchez-Gasca. (2020). Provides readers with an understanding of the modeling and practice in power system stability analysis and control design.

Smart Technologies



Energy IoT Architecture: From Theory to Practice, Stuart McCafferty. (2022). This book explores transforming the electricity industry to meet clean energy goals.



IoT for Smart Grids : Design Challenges and Paradigms, Kostas Siozios et al. (2019). This book explains the fundamentals of control theory for Internet of Things (IoT) systems and smart grids and its applications.



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



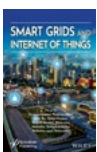
Power Systems & Smart Energies, Fauzi Derbel. (2020). This volume is devoted to power electronics in renewable energy systems as well as to hybrid renewable energy systems.



Smart Grid and Enabling Technologies, Shady S. Refaat et al. (2021). Discover foundational topics in smart grid technology as well as an exploration of the current and future state of the industry.



Smart Grid Control : Overview and Research Opportunities, Jakob Stoustrup et al. (2019). Focusing on the current and future development of smart grids in the generation and transmission of energy.



Smart Grids and Internet of Things : An Energy Perspective, P. Sanjeevikumar et al. (2023). Covers the challenges in energy harvesting and sustainable solutions for IoTSGs and their solutions for practical applications.

eJournals

Energies. (Covers topics related to energy sources, systems, policy, and management.)

Energy Future. (Innovations in energy and power.)

Journal of Power Technologies (Covers all aspects of the science, technology and developing of turbomachinery, nuclear energy, fuel cells, renewable energy, thermodynamics.)

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

International Journal of Sustainable Energy (Covers biomass, wave generators and wave power.)

Worldwide Energy (Provides information on energy sources and applications.)