

# IET Library Reading List: Smart Grids



These ebooks and ejournals, available via [the IET Virtual Library](https://theiet.org/virtual-library), focus on the topic of smart grids, covering design, implementation, renewables and smart appliances.

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## Ebooks (provided by EBSCO and Knovel)

**Green and Smart Technologies for Smart Cities, Pradeep Tomar and Gurjit Kaur. (2020).** 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.

**Electric System Operations: Evolving to the Modern Grid, Mani Vadari. (2020).** 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.

**Distributed Power Resources : Operation and Control of Connecting to the Grid, Li Ruisheng. (2019).** Considers the development of distributed photovoltaic power, wind power, and electric vehicle energy storage. It discusses the characteristics of distributed resources and the key requirements and core technologies for plug-and-play applications.

**Power Generation Technologies, Paul Breeze. (2019).** Explores even more renewable technologies in detail, from traditional fossil fuels and the more established alternatives such as wind and solar power, to emerging renewables such as biomass and geothermal energy.

**Smart Grid Control : Overview and Research Opportunities, Jakob Stoustrup, Anuradha Annaswamy, Aranya Chakraborty and Zhihua Qu. (2019).** Focuses on the current and future development of smart grids in the generation and transmission of energy.

**Smart Grid Systems : Modeling and Control, N. Ramesh Babu. (2019).** Provides a comprehensive discussion from several experts and practitioners and describes the challenges and the future scope of the technologies related to smart grid.

**IoT for Smart Grids : Design Challenges and Paradigms, Kostas Siozios, Dimitrios Anagnostos, Dimitrios Soudris and Elias Kosmatopoulos. (2019).** Explains the fundamentals of control theory for Internet of Things (IoT) systems and smart grids and its applications.

**From Vehicles To Grid To Electric Vehicles To Green Grid: Many A Little Makes A Miracle, Fuhuo Li, Shigeru Kanemitsu and Jianjie Zhang. (2020).** By unifying diverse scientific disciplines, this book paves the way for proper understanding of current and future issues on global warming, air pollution, natural resource depletion, smart grid cyberattacks, amongst others.

**Optimal Charging Control of Electric Vehicles in Smart Grids, Wanrong Tang and Ying Jun (Angela) Zhang. (2017).** Introduces the optimal online charging control of electric vehicles (EVs) and battery energy storage systems (BESSs) in smart grids.

**Successful Smart Grid Implementation, James A. Ketchledge. (2015).** Prepares readers to plan, execute, and properly control a smart meter and grid operational technology and systems integration project.

**Smart Grid - Integrating Renewable, Distributed and Efficient Energy, Fereidoon P. Sioshansi. (2012).** Covers smart grids from A-Z, covering both policy and technology, and explaining the most recent innovations supporting its development.

**Advanced Smart Grid - Edge Power Driving Sustainability, Andres Carvallo and John Cooper. (2015).** Presents readers with the building blocks that comprise basic smart grids, including power plant, transmission substation, distribution, and meter automation.

## Ejournals (provided by EBSCO)

**Energy Future.** (*Innovations in energy and power.*)

**Energy, Efficiency and Technology.** (*Provides information about energy efficiency and productivity.*)

**Journal of Power Technologies.** (*Provides a forum on all aspects of the science, technology and developing of hydro power, nuclear energy, fuel cells, and renewable energy.*)

**International journal of green energy.** (*Covers all aspects of energy and energy technologies, covering environmentally friendly energy technologies and systems, natural and alternative sources of energy, and advanced technologies for energy conversion and power generation.*)

**Worldwide Energy.** (*Provides news and information on all types of energy sources and applications.*)

### Further resources from the IET

- [IET Smart Grid \(Open Access Journal\)](#)
- [IET Smart Cities \(Open Access Journal\)](#)
- [Communities and Networks](#)
- [Factfiles](#)
- [IET Academy](#)
- [IET Digital Library](#)
- [Technical Webinars](#)

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IET members can access the Virtual Library via the single sign-on (SSO) service. If you are experiencing difficulties logging in via the SSO please contact the membership services team at [membership@theiet.org](mailto:membership@theiet.org).

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