The Institution of Engineering and Technology

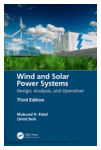
July 2023

Collection Highlights:
An online reading list from the IET Library

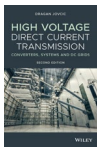
These eBooks and ejournals, available via the IET Virtual Library, have been selected to highlight some of the most popular titles used by our members as well as new additions to the collection, covering a wide range of engineering topics.

theiet.org/virtual-library

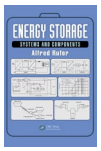
Ebooks (provided by EBSCO and Knovel)



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.



High Voltage Direct Current Transmission, Dragan Jovcic. (2019). This new edition covers all HVDC transmission technologies including Line Commutated Converter (LCC) HVDC; Voltage Source Converter (VSC) HVDC, and the latest VSC HVDC based on Modular Multilevel Converters (MMC), as well as the principles of building DC transmission grids.



Energy Storage : Systems and Components, Alfred Rufer. (2018). This book 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, peak shaving, and reduction of energy consumption.

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 grid.

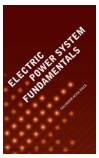
Python - An Introduction to Programming (2nd Edition), James R. Parker. (2021). This book is an introduction to programming concepts that uses Python 3 as the target language. It follows a practical just in time presentation where material is given to the student when it is needed.

Power Electronics Handbook (4th Edition), M. H. Rashid. (2018). This book brings together over 100 years of combined experience in the specialist areas of power engineering to offer a fully revised and updated expert guide to total power solutions.

AI for Cars, Josep Aulinas and Hanky Sjafrie. (2022). From pedestrian detection to driver monitoring to recommendation engines, the book discusses the background, research and progress being made in this area.

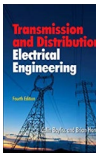
Introduction to Python for Science and Engineering, David J. Pine. (2019). This guide offers a quick and incisive introduction to Python programming for anyone. The author has carefully developed a concise approach to using Python in any discipline of science and engineering.

IET Wiring Regulations: Inspection, Testing and Certification, Brian Scadden (2019). Simplifies the advice found in the Wiring Regulations, explaining how they apply to working practice for inspection, testing and certification.



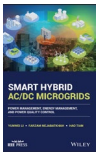
Electric Power System Fundamentals, Savador Acha Daza. (2016). This comprehensive resource presents the fundamentals of power systems, including the theory, practical steps, and methods used in the design and management of energy systems.

Practical Guide to Inspection, Testing and Certification of Electrical Installations, Christopher Kitcher. (2019). This book covers everything you need to learn about inspection and testing, with clear reference to the latest updates to the legal requirements and wiring regulations.



Transmission and Distribution Electrical Engineering, C.R. Bayliss and B.J. Hardy. (2012). Utilizing examples from real-life systems and challenges, this book clearly and succinctly outlines fundamental knowledge requirements for working in this area.

The Safety Critical Systems Handbook : A Straightforward Guide to Functional Safety: IEC 61508 (2010 Edition), IEC 61511 (2015 Edition) and Related Guidance, David J. Smith and Kenneth G. L. Simpson. (2016). Provides an overview and discussion of safety standards applicable to a wide range of sectors including the operation of nuclear power plants.



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.

Ejournals (provided by EBSCO)

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

Harvard Business Review. Presents analysis of management problems and practice in all fields of management and administration.

New Scientist. The latest news about advances in science and technology with an international scope.

Environmental Science and Pollution Research International. Covers all areas of Environmental Science and related subjects, with emphasis on chemical compounds.

FierceBiotech. Covers the fast-growing world of Biopharma with news, analysis and data on the pharmaceutical industry and technological advances within it.

Qualitative Report. Devoted to the writing and discussion of and about qualitative, critical, action, and collaborative inquiry and research.

Construction Management & Economics. Peer reviewed coverage of developments in construction management and economics on a wide range of topics.

Energy, Sustainability & Society. A forum for natural scientists, engineers, and experts in and around the energy industry.

The Scientist. Reliable resource for life science research professionals covering innovation, research, and development.

Further resources from the IET

- Communities and Networks
- Factfiles
- IET Academy
- IET Digital Library
- IET Computer Vision
- Technical Webinars

Help and contacts

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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.**

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