

IET Library Reading List: Electric Vehicles



These ebooks and ejournals, available via [the IET Virtual Library](https://theiet.org/virtual-library), focus on electric vehicles, covering charging, construction, design and other areas within this topic.

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Ebooks (provided by EBSCO and Knovel)

Hybrid Electric Vehicle System Modeling and Control (2nd Edition), Wei Liu. (2017). Expands contents on Li-ion batteries detailing the positive and negative electrodes and characteristics and other components including binder, electrolyte, separator and foils and the structure of Li-ion battery cell. Includes a new section on multi-mode electrically variable transmission.

Electric and Hybrid Vehicles - Power Sources, Models, Sustainability, Infrastructure and the Market, Gianfranco Pistoia. (2010). Information on alternative vehicular power systems, encompassing advances in the rapidly evolving battery, hybrid and fuel cell technology domains.

Electric Motors and Drives - Fundamentals, Types and Applications (4th Edition), Austin Hughes and Bill Drury. (2013). Intended for non-specialist users of electric motors and drives, filling the gap between maths and theory-based academic textbooks and the more prosaic 'handbooks'.

Electric Powertrain : Energy Systems, Power Electronics and Drives for Hybrid, Electric and Fuel Cell Vehicles, John G. Hayes and G. Abas Goodarzi. (2018). The why, what and how of electric vehicle powertrain. Provides knowledge and skills required to engineer electric vehicle powertrain architectures, energy storage systems, power electronics converters and electric drives.

Electric Vehicles in Energy Systems : Modelling, Integration, Analysis, and Optimization, Ali Ahmadian, Behnam Mohammadi-ivatloo and Ali Elkamel. (2020). Discusses the technical, economic, and environmental aspects of electric vehicles and their impact on electrical grids and energy systems.

From Vehicles To Grid To Electric Vehicles To Green Grid: Many A Little Makes A Miracle, Fuhuo Li, Shigeru Kanemitsu and Jianjie Zhang. (2020). Provides a complete understanding of current and future issues on global warming, air pollution, natural resource depletion and smart grid cyberattacks by unifying scientific disciplines to achieve a sustainable, green society.

Wireless Power Transfer for Electric Vehicles: Foundations and Design Approach, Alicia Triviño-Cabrera, José M. González-González and José A. Aguado. (2020). Fundamentals and applications of wireless power transfer (WPT) in electric vehicles (EVs), a technology that powers devices without needing to be connected to the electrical grid by a cable.

The Fully Charged Guide to Electric Vehicles & Clean Energy. (2020). Global experts explore how sustainable technologies – from solar panels to wind turbines and electric vehicles – are getting cheaper, more effective and more available, and how by making everyday changes, we could see the 'big switch' in the coming decade.

Behaviour of Lithium-Ion Batteries in Electric Vehicles : Battery Health, Performance, Safety, and Cost, Gianfranco Pistoia and Boryann Liaw. (2018). State-of-the-art research on developments in lithium-ion batteries for hybrid and electric vehicles. Summarises their performance, cost, service life, management, charging facilities and safety.

Optimal Charging Control of Electric Vehicles in Smart Grids, Wanrong Tang and Ying Jun (Angela) Zhang. (2017). Introduces optimal online charging control of electric vehicles (EVs) and battery energy storage systems (BESSs) in smart grids to minimise energy costs whilst reducing the fluctuation of total power flow.

Ejournals (provided by EBSCO)

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.)

Journal of Mechatronics, Electrical Power & Vehicular Technology. (Publishes original research papers, review articles and case studies focused on mechatronics, electrical power, and vehicular technology as well as related topics.)

International Journal of Automotive Technology. (Covers all aspects of the field including thermal engineering, flow, structural

& modal analysis, control, vehicular electronics, mechatronics, electro-mechanical engineering, optimum design methods, ITS and recycling.)

Automotive Logistics. (Features, reports, interviews & news of the partnerships & developments in vehicle logistics globally.)

Automotive Design and Production. (Covers the interrelationships between automotive product development and manufacturing processes.)

Energies. (Covers topics related to energy sources & systems, including technology development, engineering, energy policy, and energy management.)

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