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Autore	Babak Vitalii
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Altri autori (Persone)	ZaporozhetsArtur
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Soggetti	Electrical engineering Transportation engineering Traffic engineering Engineering mathematics Engineering - Data processing Electrical and Electronic Engineering Transportation Technology and Traffic Engineering Mathematical and Computational Engineering Applications
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Nota di contenuto	Energy Informatics -- Digitization as a Modern Challenge for the Energy Systems' Transformation in the World -- Information Provision as a Factor in the Formation of Enterprises' Receptivity to Energy-Saving Technologies -- Overcoming Obstacles Towards Technological Renewal for Providing Energy-Saving Economic Growth: The Case of Natural Gas Consumption by Ukrainian Enterprises -- Energy Consumption in Key Sectors of the Processing Industry: Current State and Prospects for the Post-War Future -- Taking Into Account Environmental Constraints in Mathematical Models for Long-Term Energy Consumption Forecasting: Global Review of Recent Advances -- Modeling of Energy Supply Systems Based on the Concept of Self-Sufficiency of Local Energy System.
Sommario/riassunto	This book presents a curated selection of contemporary research, capturing the progress of Ukrainian and international scientists in addressing the complex issues surrounding energy systems, sustainable fuels, and efficient transport solutions. The world's growing

energy demands, coupled with pressing environmental concerns, present significant challenges and opportunities in the energy sector. The advancements within this sector are increasingly driven by innovations in technology, information systems, and cross-disciplinary research efforts. Through this collaborative scientific endeavor, the authors aim to offer a holistic view of current advancements and innovative solutions in three core areas: energy informatics, fuels, and transport. Energy informatics integrates data analytics, digital infrastructure, and real-time monitoring to improve energy efficiency and support sustainable energy transitions. The works presented in this section illustrate how the integration of cutting-edge computational models, artificial intelligence, and big data analytics is enabling smarter, more adaptive energy systems. Topics covered include optimization of energy consumption, predictive modeling for energy needs, and the development of robust frameworks to manage and process vast amounts of energy-related data. This section highlights how energy informatics serves as a foundational tool in meeting the evolving demands for efficient and sustainable energy. In the fuels section, the book addresses the urgent need for alternative and cleaner energy sources. The global push toward reducing greenhouse gas emissions and mitigating climate change impacts has accelerated research into innovative fuel sources. This section underscores the critical role of novel fuel technologies in ensuring energy security and reducing environmental impact. Transport, the third section, encompasses research on the transformation of the transport sector toward sustainability and efficiency. Transportation is a major consumer of energy and a significant source of emissions, making it a focal area in the transition to cleaner energy systems. This section presents a variety of studies on electric mobility and the development of low-emission technologies.
