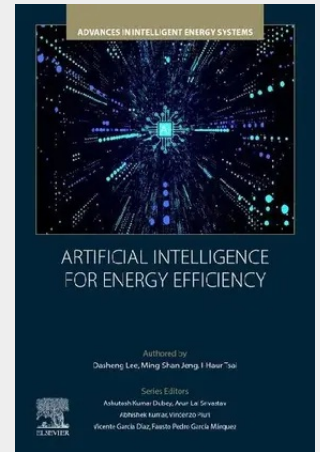


Artificial Intelligence for Energy Efficiency

Artificial Intelligence for Energy Efficiency is a comprehensive exploration of AI application technologies. The book integrates AI algorithms with the operational principles of electrical machinery and energy systems and introduces how these algorithms can alter the operational characteristics of such systems. With a focus on their use in enhancing energy efficiency, it imparts interdisciplinary knowledge and a deep understanding of the principles and methods of AI applications. The book begins with an overview of global trends in enhancing energy efficiency, followed by an introduction to AI algorithms applied in this field. Subsequent chapters, supported by industry case studies, delve into AI applications in enhancing motor efficiency, building and energy saving for building equipment, and smart city development. The book also addresses AI computing power saving and discusses the evolution of AI and the limits of energy efficiency improvement. It concludes with future prospects and the most beneficial application of AI for sustainable human development. Artificial Intelligence for Energy Efficiency is an essential read for graduate students in mechanical, electrical, architectural, and energy-related fields, as well as researchers interested in the intersection of AI and energy efficiency. This comprehensive guide offers a wealth of research case studies, making it a valuable reference tool for professionals in the energy sector.

Artificial Intelligence for Energy Efficiency is a comprehensive exploration of AI application technologies. The book integrates AI algorithms with the operational principles of electrical machinery and energy systems and introduces how these algorithms can alter the operational characteristics of such systems. With a focus on their use in enhancing energy efficiency, it imparts interdisciplinary knowledge and a deep understanding of the principles and methods of AI applications. The book begins with an overview of global trends in enhancing energy efficiency, followed by an introduction to AI algorithms applied in this field. Subsequent chapters, supported by industry case studies, delve into AI applications in enhancing motor efficiency, building and energy saving for building equipment, and smart city development. The book also addresses AI computing power saving and discusses the evolution of AI and the limits of energy efficiency improvement. It concludes with future prospects and the most beneficial application of AI for sustainable human development. Artificial Intelligence for Energy Efficiency is an essential read for graduate students in mechanical, electrical, architectural, and energy-related fields, as well as researchers interested in the intersection of AI and energy efficiency. This comprehensive guide offers a wealth of research case studies, making it a valuable reference tool for professionals in the energy sector.



180,50 €

180,50 € (zzgl. MwSt.)

vorbestellbar, Erscheinungstermin ca. April 2026

Artikelnummer: 9780443367298

Medium: Buch

ISBN: 978-0-443-36729-8

Verlag: Elsevier Science

Erscheinungstermin: 15.04.2026

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2026

Produktform: Kartoniert

Gewicht: 450 g

Seiten: 380

Format (B x H): 152 x 229 mm

