

Special Issue Reprint

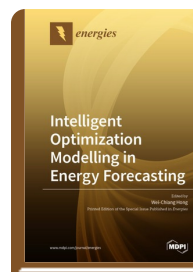
Intelligent Optimization Modelling in Energy Forecasting

www.mdpi.com/books/reprint/2147

Edited by
Wei-Chiang Hong

ISBN 978-3-03928-364-4 (Softback)

ISBN 978-3-03928-365-1 (PDF)



Accurate energy forecasting is important to facilitate the decision-making process in order to achieve higher efficiency and reliability in power system operation and security, economic energy use, contingency scheduling, the planning and maintenance of energy supply systems, and so on. In recent decades, many energy forecasting models have been continuously proposed to improve forecasting accuracy, including traditional statistical models (e.g., ARIMA, SARIMA, ARMAX, multi-variate regression, exponential smoothing models, Kalman filtering, Bayesian estimation models, etc.) and artificial intelligence models (e.g., artificial neural networks (ANNs), knowledge-based expert systems, evolutionary computation models, support vector regression, etc.). Recently, due to the great development of optimization modeling methods (e.g., quadratic programming method, differential empirical mode method, evolutionary algorithms, meta-heuristic algorithms, etc.) and intelligent computing mechanisms (e.g., quantum computing, chaotic mapping, cloud mapping, seasonal mechanism, etc.), many novel hybrid models or models combined with the above-mentioned intelligent-optimization-based models have also been proposed to achieve satisfactory forecasting accuracy levels. It is important to explore the tendency and development of intelligent-optimization-based modeling methodologies and to enrich their practical performances, particularly for marine renewable energy forecasting.

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.