The book provides an overview on various microorganisms and their industrialization in energy conversion, such as ethanol production, biogas fermentation and fossil energy conversion. It also covers microbial oil production, hydrogen production and gasification, discussing the technical and economic aspects of these processes. The improvements achieved are described. Comparisons are made between the two reference techniques, and pros and cons are presented to help decide on the best approach. The book highlights the potential for performance improvements when the reactive power component is exploited in addition to the active power consumption trace.

This book provides a comprehensive introduction to forecasting methods and presents enough information about each method for readers to use them sensibly. Forecasting is required in many situations. Stocking an inventory may require forecasts of demand months in advance. Traffic forecasts a few minutes ahead. Whatever the circumstances or time horizons involved, forecasting is an important aid in effective and efficient planning. This textbook provides a comprehensive introduction to forecasting methods and presents enough information about each method for readers to use them sensibly.

This book constitutes the refereed proceedings of the 19th International Conference on Engineering Applications of Neural Networks, ENN 2019, held in Xersonisos, Crete, Greece, in May 2019. The 35 revised full papers and 5 revised short papers presented were carefully reviewed and selected from 72 submissions. The papers are organized in topical sections on AI in energy management - distributed energy sources and storage, smart meters and monitoring, research lab infrastructures, electric mobility, communication and security, and modeling and simulation.

This book constitutes the refereed proceedings of the 4th D-A-CH Conference on Energy Informatics, D-A-CH EI 2015, held in 2015. The 18 revised full papers presented were carefully reviewed and selected from 36 submissions. The papers are organized in topical sections on distributed energy sources and storage, smart meters and monitoring, research lab infrastructures, electric mobility, communication and security, and modeling and simulation.

This book presents the proceedings of the 7th International Conference on Frontiers of Intelligent Computing: Theory and Applications, Frontiers 2017, held at Duy Tan University, Da Nang, Vietnam. The event brought together researchers, scientists, engineers, and practitioners to exchange new ideas and experiences in the domain of intelligent computing theories with prospective applications in various engineering areas. These proceedings are divided into two volumes. Covering broad areas of information and decision sciences, with papers reviewed and selected from 72 submissions. The papers are organized in topical sections on distributed energy sources and storage, smart meters and monitoring, research lab infrastructures, electric mobility, communication and security, and modeling and simulation.

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