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Nota di contenuto	Introduction -- Energy Performance Analysis: Stochastic Frontier Analysis (SFA) and Data Envelopment Analysis (DES) for Energy Performance Analysis -- Energy Decision-Making 1: Strategic Planning of Sustainable Manufacturing Projects based on Stochastic Programming -- Energy Decision-Making 2: Demand Response Option Contract Decision based on Stochastic Programming -- Pattern-based Energy Consumption Analysis by Chaining Principle Component

Analysis and Logistic Regression -- Ontology-enabled Knowledge Management in Environmental Regulations and Incentive Policies -- Energy Simulation Using EnergyPlusTM for Building and Process Energy Balance -- Energy Management Process for businesses -- Energy Efficiency Accounting to Demonstrate Performance.

Sommario/riassunto

This book introduces the issues and problems that arise when implementing smart energy management for sustainable manufacturing in the automotive manufacturing industry and the analytical tools and applications to deal with them. It uses a number of illustrative examples to explain energy management in automotive manufacturing, which involves most types of manufacturing technology and various levels of energy consumption. It demonstrates how analytical tools can help improve energy management processes, including forecasting, consumption, and performance analysis, emerging new technology identification as well as investment decisions for establishing smart energy consumption practices. It also details practical energy management systems, making it a valuable resource for professionals involved in real energy management processes, and allowing readers to implement the procedures and applications presented.