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Descrizione fisica	1 online resource (VI, 276 p. 98 illus., 75 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 645
Disciplina	006.3
Soggetti	Computational intelligence Application software Energy efficiency Software engineering Management Industrial management Computational Intelligence Information Systems Applications (incl. Internet) Energy Efficiency Software Engineering Innovation/Technology Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Sustainable Development and Computing - an Introduction -- Wind Power Prediction with Machine Learning -- Statistical Learning for Short-Term Photovoltaic Power Predictions -- Renewable Energy Prediction for Improved Utilization and Efficiency in Datacenters and Backbone Networks -- A Hybrid Machine Learning and Knowledge Based Approach to Limit Combinatorial Explosion in Biodegradation Prediction -- Feeding the World with Big Data: Uncovering Spectral Characteristics and Dynamics of Stressed Plants -- Global Monitoring of Inland Water Dynamics: State-of-the-art, Challenges, and Opportunities -- Installing Electric Vehicle Charging Stations City-Scale: How Many and Where? -- Computationally Efficient Design Optimization of Compact Microwave and Antenna Structures --

Sustainable Industrial Processes by Embedded Real-Time Quality Prediction -- Relational Learning for Sustainable Health -- ARM Cluster for Performant and Energy-efficient Storage.

Sommario/riassunto

The book at hand gives an overview of the state of the art research in Computational Sustainability as well as case studies of different application scenarios. This covers topics such as renewable energy supply, energy storage and e-mobility, efficiency in data centers and networks, sustainable food and water supply, sustainable health, industrial production and quality, etc. The book describes computational methods and possible application scenarios.
