1.	Record Nr.	UNINA9910254251703321
	Titolo	Computational Sustainability / / edited by Jörg Lässig, Kristian Kersting, Katharina Morik
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
	ISBN	3-319-31858-6
	Edizione	[1st ed. 2016.]
	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 consumption
		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
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	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.