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Soggetti	Computational intelligence Artificial intelligence Computational Intelligence Artificial Intelligence
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Nota di contenuto	PART 1, Data mining, machine learning, knowledge discovery, Tensor Networks for Dimensionality Reduction, Big Data and Deep Learning -- Local Data Characteristics in Learning Classifiers from Imbalanced Data -- Similarity dimensions of semantic ontologies -- Some interesting phenomenon occurring during self-learning process with its psychological interpretation -- PART 2, Neural networks and connectionist systems, On the interpretation and characterization of echo state networks dynamics: A complex systems perspective -- Optimization of Ensemble Neural Networks with Type-1 and Interval Type-2 Fuzzy Integration for Forecasting the Taiwan Stock Exchange -- Deep Neural Networks – A Brief History -- PART 3, Intelligent technologies in systems modeling, Techniques for Construction and Integration of Rule Bases -- New Aspects of Interpretability of Fuzzy Systems for Nonlinear Modeling -- On the intuitionistic fuzzy sets of n- th type -- PART 4. Intelligent technologies in decision making, optimization and control, MCTS/UCT in solving real-life problems -- Interactive cone contraction for evolutionary multiple objective optimization -- A review of fuzzy and mathematic methods for dynamic parameter adaptation in the firefly algorithm -- PART 5.

Applications of intelligent technologies Computational Intelligence  
Methods in Personalized Pharmacotherapy -- Embodying Intelligence in  
Autonomous and Robotic Systems with the Use of Cognitive Psychology  
and Motivation Theories -- Evolutionary Approach for Automatic  
Design of PID Controllers -- Fuzzy-genetic approach to identity  
verification using a handwritten signature -- A method of design and  
optimization for SiC-based grid-connected AC-DC converters.

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#### Sommario/riassunto

This book is a tribute to Professor Jacek urada, who is best known for his contributions to computational intelligence and knowledge-based neurocomputing. It is dedicated to Professor Jacek urada, Full Professor at the Computational Intelligence Laboratory, Department of Electrical and Computer Engineering, J.B. Speed School of Engineering, University of Louisville, Kentucky, USA, as a token of appreciation for his scientific and scholarly achievements, and for his longstanding service to many communities, notably the computational intelligence community, in particular neural networks, machine learning, data analyses and data mining, but also the fuzzy logic and evolutionary computation communities, to name but a few. At the same time, the book recognizes and honors Professor urada's dedication and service to many scientific, scholarly and professional societies, especially the IEEE (Institute of Electrical and Electronics Engineers), the world's largest professional technical professional organization dedicated to advancing science and technology in a broad spectrum of areas and fields. The volume is divided into five major parts, the first of which addresses theoretic, algorithmic and implementation problems related to the intelligent use of data in the sense of how to derive practically useful information and knowledge from data. In turn, Part 2 is devoted to various aspects of neural networks and connectionist systems. Part 3 deals with essential tools and techniques for intelligent technologies in systems modeling and Part 4 focuses on intelligent technologies in decision-making, optimization and control, while Part 5 explores the applications of intelligent technologies.

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