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Nota di contenuto	Machine Learning and Brain Computer Interface -- A New Framework for Machine Learning -- Bilevel Optimization and Machine Learning -- Bayesian Ying Yang System, Best Harmony Learning, and Gaussian Manifold Based Family -- The Berlin Brain-Computer Interface -- Basic Scheme of Neuroinformatics Platform: XooNlps -- Fuzzy Modeling and

Control -- Collaborative Architectures of Fuzzy Modeling --
Information Fusion for Man-Machine Cooperation -- Bio-inspired Self-
Organizing Relationship Network as Knowledge Acquisition Tool and
Fuzzy Inference Engine -- Type-2 Fuzzy Logic Controllers: A Way
Forward for Fuzzy Systems in Real World Environments --
Computational Evolution -- The Burden of Proof: Part II -- Evolution of
Altruistic Robots -- Simulated Evolution under Multiple Criteria
Conditions Revisited -- Handling Uncertainties in Evolutionary Multi-
Objective Optimization -- Applications -- VCV2 – Visual Cluster
Validity -- Data Management by Self-Organizing Maps -- Cocktail Party
Processing -- Similarities in Fuzzy Data Mining: From a Cognitive View
to Real-World Applications -- Attaining Fault Tolerance through Self-
adaptation: The Strengths and Weaknesses of Evolvable Hardware
Approaches.

Sommario/riassunto

This state-of-the-art survey offers a renewed and refreshing focus on the progress in nature-inspired and linguistically motivated computation. The book presents the expertise and experiences of leading researchers spanning a diverse spectrum of computational intelligence in the areas of neurocomputing, fuzzy systems, evolutionary computation, and adjacent areas. The result is a balanced contribution to the field of computational intelligence that should serve the community not only as a survey and a reference, but also as an inspiration for the future advancement of the state of the art of the field. The 18 selected chapters originate from lectures and presentations given at the 5th IEEE World Congress on Computational Intelligence, WCCI 2008, held in Hong Kong, China, in June 2008. After an introduction to the field and an overview of the volume, the chapters are divided into four topical sections on machine learning and brain computer interface, fuzzy modeling and control, computational evolution, and applications.
