1. Record Nr. UNINA9910483973703321

Titolo	Life System Modeling and Intelligent Computing : International Conference on Life System Modeling and Simulation, LSMS 2010, and International Conference on Intelligent Computing for Sustainable Energy and Environment, ICSEE 2010, Wuxi, China, September 17-20, 2010, Proceedings, Part II / / edited by Minrui Fei, Li Jia, George W. Irwin
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
ISBN	1-280-38879-X 9786613566713 3-642-15597-9
Edizione	[1st ed. 2010.]
Descrizione fisica	1 online resource (XXI, 518 p. 230 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 6329
Altri autori (Persone)	LiKang
Disciplina	570.285
Soggetti	Bioinformatics Computer science Algorithms Computer vision Computer simulation Computers, Special purpose Computational and Systems Biology Theory of Computation Computer Vision Computer Modelling Special Purpose and Application-Based Systems
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 and index.
Nota di contenuto	The First Section: Advanced Evolutionary Computing Theory and Algorithms -- A Novel Ant Colony Optimization Algorithm in Application of Pheromone Diffusion -- Modelling the Effects of Operating Conditions on Motor Power Consumption in Single Screw Extrusion -- Quantum Genetic Algorithm for Hybrid Flow Shop

Scheduling Problems to Minimize Total Completion Time -- Re-diversified Particle Swarm Optimization -- Fast Forward RBF Network Construction Based on Particle Swarm Optimization -- A Modified Binary Differential Evolution Algorithm -- Research on Situation Assessment of UCAV Based on Dynamic Bayesian Networks in Complex Environment -- Optimal Tracking Performance for Unstable Processes with NMP Zeroes -- Typhoon Cloud Image Enhancement by Differential Evolution Algorithm and Arc-Tangent Transformation -- Data Fusion-Based Extraction Method of Energy Consumption Index for the Ethylene Industry -- Research on Improved QPSO Algorithm Based on Cooperative Evolution with Two Populations -- Optimum Distribution of Resources Based on Particle Swarm Optimization and Complex Network Theory -- The Model of Rainfall Forecasting by Support Vector Regression Based on Particle Swarm Optimization Algorithms -- Constraint Multi-objective Automated Synthesis for CMOS Operational Amplifier -- Research on APIT and Monte Carlo Method of Localization Algorithm for Wireless Sensor Networks -- Quantum Immune Algorithm and Its Application in Collision Detection -- An Artificial Bee Colony with Random Key for Resource-Constrained Project Scheduling -- The Second Section: Advanced Neural Network and Fuzzy System Theory and Algorithms -- Combined Electromagnetism-Like Mechanism Optimization Algorithm and ROLS with D-Optimality Learning for RBF Networks -- Stochastic Stability and Bifurcation Analysis on Hopfield Neural Networks with Noise -- EMD-TEO Based Speech Emotion Recognition -- A Novel Fast Algorithm Technique for Evaluating Reliability Indices of Radial Distribution Systems -- An Improved Adaptive Sliding Mode Observer for Sensorless Control of PMSM -- Clustering-Based Geometric Support Vector Machines -- A Fuzzy-PID Depth Control Method with Overshoot Suppression for Underwater Vehicle -- Local Class Boundaries for Support Vector Machine -- Research on Detection and Material Identification of Particles in the Aerospace Power -- The Key Theorem of Learning Theory Based on Sugeno Measure and Fuzzy Random Samples -- Recognition of Fire Detection Based on Neural Network -- The Design of Predictive Fuzzy-PID Controller in Temperature Control System of Electrical Heating Furnace -- Stability Analysis of an Impulsive Cohen-Grossberg-Type BAM Neural Networks with Time-Varying Delays and Diffusion Terms -- The Third Section: Modeling and Simulation of Societies and Collective Behaviour -- Characterizing Multiplex Social Dynamics with Autonomy Oriented Computing -- A Computational Method for Groundwater Flow through Industrial Waste by Use of Digital Color Image -- A Genetic Algorithm for Solving Patient-Priority- Based Elective Surgery Scheduling Problem -- A Neighborhood Correlated Empirical Weighted Algorithm for Fictitious Play -- Application of BP Neural Network in Exhaust Emission Estimatation of CAPS -- Dynamic Behavior in a Delayed Bioeconomic Model with Stochastic Fluctuations -- The Fourth Section: Biomedical Signal Processing, Imaging, and Visualization -- A Feature Points Matching Method Based on Window Unique Property of Pseudo-Random Coded Image -- A Reconstruction Method for Electrical Impedance Tomography Using Particle Swarm Optimization -- VLSI Implementation of Sub-pixel Interpolator for AVS Encoder -- The Fifth Section: Intelligent Computing and Control in Distributed Power Generation Systems -- Optimization of Refinery Hydrogen Network -- Overview: A Simulation Based Metaheuristic Optimization Approach to Optimal Power Dispatch Related to a Smart Electric Grid -- Speed Control for a Permanent Magnet Synchronous Motor with an Adaptive Self-Tuning Uncertainties Observer -- Research on Short-Term Gas Load

Forecasting Based on Support Vector Machine Model -- Network Reconfiguration at the Distribution System with Distributed Generators -- The Sixth Section: Intelligent Methods in Power and Energy Infrastructure Development -- An Autonomy-Oriented Computing Mechanism for Modeling the Formation of Energy Distribution Networks: Crude Oil Distribution in U.S. and Canada -- A Wavelet-Prony Method for Modeling of Fixed-Speed Wind Farm Low-Frequency Power Pulsations -- Direct Torque Control for Permanent Magnet Synchronous Motors Based on Novel Control Strategy -- The Seventh Section: Intelligent Modeling, Monitoring, and Control of Complex Nonlinear Systems -- A Monitoring Method Based on Modified Dynamic Factor Analysis and Its Application -- A Novel Approach to System Stabilization over Constrained Channels -- An Efficient Algorithm for Grid-Based Robotic Path Planning Based on Priority Sorting of Direction Vectors -- A Novel Method for Modeling and Analysis of Meander-Line-Coil Surface Wave EMATs -- The Design of Neuron-PID Controller for a Class of Networked Control System under Data Rate Constraints -- Stochastic Optimization of Two-stage Multi-item Inventory System with Hybrid Genetic Algorithm -- Iterative Learning Control Based on Integrated Dynamic Quadratic Criterion for Batch Processes -- Impedance Measurement Method Based on DFT -- A 3D-Shape Reconstruction Method Based on Coded Structured Light and Projected Ray Intersecting Location -- Erratum -- Erratum: Modelling the Effects of Operating Conditions on Motor Power Consumption in Single Screw Extrusion.

Sommario/riassunto

The 2010 International Conference on Life System Modeling and Simulation (LSMS 2010) and the 2010 International Conference on Intelligent Computing for Sustainable Energy and Environment (ICSEE 2010) were formed to bring together researchers and practitioners in the fields of life system modeling/simulation and intelligent computing applied to worldwide sustainable energy and environmental applications. A life system is a broad concept, covering both micro and macro components ra- ing from cells, tissues and organs across to organisms and ecological niches. To c- prehend and predict the complex behavior of even a simple life system can be - tremely difficult using conventional approaches. To meet this challenge, a variety of new theories and methodologies have emerged in recent years on life system modeling and simulation. Along with improved understanding of the behavior of biological systems, novel intelligent computing paradigms and techniques have emerged to h- dle complicated real-world problems and applications. In particular, intelligent c- puting approaches have been valuable in the design and development of systems and facilities for achieving sustainable energy and a sustainable environment, the two most challenging issues currently facing humanity. The two LSMS 2010 and ICSEE 2010 conferences served as an important platform for synergizing these two research streams.