



Handbook of Research on Nature Inspired Computing for Economics and Management

Edited by:

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Key Features

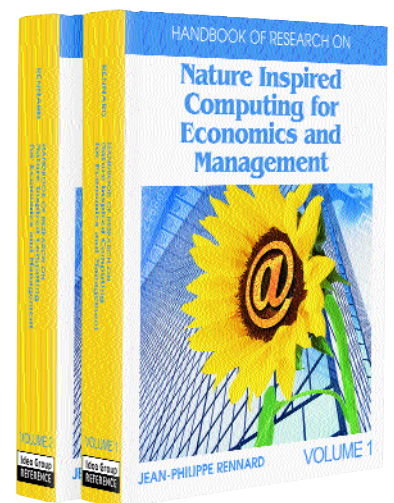
- Authoritative contributions by over 100 internationally renowned experts
- A single source for comprehensive information on an expansive field
- In-depth definitions of more than 400 key terms
- 114 tables and more than 380 figures with detailed illustrations
- Organized by topic and indexed, making it a convenient method of reference for all IT/IS scholars and professionals
- More than 1,850 references to existing literature and research on computer modeling for business
- Cross-referencing of key terms, figures, and information

The **Handbook of Research on Nature Inspired Computing for Economics and Management** is the original, comprehensive reference work on research and applications of nature inspired computing to economics and management. It is an authoritative source, providing global coverage of this new and exciting field. Gathering the work of over 100 internationally known contributors, this two-volume set explores how complexities found in nature can be modeled to simulate and optimize business situations. It also provides practitioners a global view of the current and future applications of this ground-breaking technology.

Topics Covered

Applications of nature inspired computing for:

- Algorithms
- Economy: theory and practice
- Evolutionary systems
- Finance and stock-market
- Forecasting
- Manufacturing systems
- Marketing, e-commerce, and e-auctions
- Modeling
- Multi-agent systems and bottom-up simulations for social sciences
- Neural networks
- Operations management
- Software agents



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** Online access is for institutions and is good for the life of the edition.

"Students in computer sciences, social sciences, and management will find all the necessary material to master the field, and to help them in their training."

— Prof. Jean-Philippe Rennard

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ENTRIES

Agent-Based Computational Economics	Human Nature in the Adaptation of Trust
Agent-Based Modeling with Boundedly Rational Agents	Human-Centric Evolutionary Systems
Agent-Oriented Modeling and Simulation of Distributed Manufacturing	Introduction of Evolutionary Computation in Auctions
Agent-Oriented Paradigm of Information Systems	Introduction to Artificiality in Social Sciences
Agents for Multi-Issue Negotiation	JGA to Operations Management
Annealing Protocol for Negotiating Complex Contracts	JGA: An Object-Oriented Framework
Ant Colony Optimization and Multiple Knapsack Problem	Knowledge Accumulation in Hayekian Market Process Theory
Art of Simulation in the Social Sciences	Modeling an Artificial Stock Market
Autonomous Systems with Emergent Behaviour	Modeling Qualitative Development
Better Strategies in Oligopolistic Price Wars	Modeling the Firm as an Artificial Neural Network
Building Distribution Networks Using Cooperating Agents	Multiagent Systems Research and Social Science Theory Building
Caste-Centric Development of Agent Oriented Information Systems	Multiattribute Methodologies in Financial Decision Aid
Cognitively-Based Simulation of Academic Science	Multi-Cellular Techniques
Competitive Advantage of Geographical Clusters	Multiobjective Optimization Evolutionary Algorithms
Complexity Based Modeling Approaches for Commercial Applications	Nature-Inspired Knowledge Mining Algorithms
Data Gathering to Build and Validate Small-Scale Social Models	Neural Networks in Supply Chain Management
Dynamic Agent-Based Model of Corruption	Pareto-Optimality in Design and Manufacturing
Efficient Searching in Peer-to-Peer Networks	Population Symbiotic Evolution in a Model of Industrial Districts
Evolutionary Algorithm for Decisional Assistance to Project Management	RAP/AOR to Modeling and Simulation
Evolutionary Algorithms: Quick Presentation	Reorganize a Productive Department in Cells Through Ant Behavior
Evolutionary Modeling and Industrial Structure Emergence	Simulating Product Invention Using InventSim
Evolutionary Multi-Objective Optimization	Simulation of Strategic Bargaining Within a Biotechnology Cluster
Evolutionary Optimization in Production Research	Social Anti-Percolation and Negative Word of Mouth
Evolving Learning Ecologies	Solving Facility Location Problems Using MOEAs
Games, Supply Chains, and Automatic Strategy Discovery	Spatiotemporal Forecasting of Housing Prices
Genetic Algorithms for Organizational Design and Theory	Stochastic Optimization Algorithms
Genetic Programming	Supporting Virtual Organizations through Electronic Institutions
Grid for Nature Inspired Computing and Complex Simulations	Technological Specialization in Industrial Clusters
Heterogeneous Learning Using Genetic Algorithms	Worker Performance Modeling