## **Table of Contents**

A Pruning Algorithm for Extreme Learning Machine Li Ying and Li Fan-jun	1
Measuring Stability and Discrimination Power of Metrics in Information Retrieval Evaluation	8
System for Monitoring and Optimization of Micro- and Nano-Machining Processes Using Intelligent Voice and Visual Communication	16
Racing for Unbalanced Methods Selection	24
Super-Resolution from One Single Low-Resolution Image Based on R-KSVD and Example-Based Algorithm	32
Bilateral Multi-issue Parallel Negotiation Model Based on Reinforcement Learning	40
Learning to Detect the Subway Station Arrival for Mobile Users Kuifei Yu, Hengshu Zhu, Huanhuan Cao, Baoxian Zhang, Enhong Chen, Jilei Tian, and Jinghai Rao	49
Vision Based Multi-pedestrian Tracking Using Adaptive Detection and Clustering	58
Drilling Cost Prediction Based on Self-adaptive Differential Evolution and Support Vector Regression	67
Web Service Evaluation Method Based on Time-aware Collaborative Filtering	76
An Improved PBIL Algorithm for Path Planning Problem of Mobile Robots	85
An Initialized ACO for the VRPTW	93



Deadline-Aware Event Scheduling for Complex Event Processing Systems	101
Na Li and Qiang Guan	
A Discrete Hybrid Bees Algorithm for Service Aggregation Optimal Selection in Cloud Manufacturing	110
Continuous Motion Recognition Using Multiple Time Constant Recurrent Neural Network with a Deep Network Model Zhibin Yu and Minho Lee	118
An Extended Version of the LVA-Index	126
Anomaly Monitoring Framework Based on Intelligent Data Analysis Prapa Rattadilok, Andrei Petrovski, and Sergei Petrovski	134
Customer Unification in E-Commerce	142
Network Management Based on Domain Partition for Mobile Agents Yonghui Liu and Weidong Min	153
Multi-objective Quantum Cultural Algorithm and Its Application in the Wireless Sensor Networks' Energy-Efficient Coverage Optimization	161
Image Super Resolution via Visual Prior Based Digital Image Characteristics	168
Deep Learning on Natural Viewing Behaviors to Differentiate Children with Fetal Alcohol Spectrum Disorder	178
Prevailing Trends Detection of Public Opinions Based on Tianya Forum	186
Fast and Accurate Sentiment Classification Using an Enhanced Naive Bayes Model	194
A Scale-Free Based Memetic Algorithm for Resource-Constrained Project Scheduling Problems	202

Table of Contents	х١
A Direction based Multi-Objective Agent Genetic Algorithm	210
A Study of Representations for Resource Constrained Project Scheduling Problems Using Fitness Distance Correlation	218
Adapt a Text-Oriented Chunker for Oral Data: How Much Manual Effort Is Necessary?	2 <b>2</b> 6
	234
Clustering, Noise Reduction and Visualization Using Features  Extracted from the Self-Organizing Map	242
Efficient Service Deployment by Image-Aware VM Allocation Strategy	252
Forecasting Financial Time Series Using a Hybrid Self-Organising Neural Model	262
A Novel Diversity Maintenance Scheme for Evolutionary Multi-objective Optimization	<b>27</b> 0
Adaptive Differential Evolution Fuzzy Clustering Algorithm with Spatial Information and Kernel Metric for Remote Sensing Imagery	278
Dynamic EM in Neologism Evolution	286
Estimation of the Regularisation Parameter in Huber-MRF for Image Resolution Enhancement	294
Sparse Prototype Representation by Core Sets	302
Reconstruction of Wind Speed Based on Synoptic Pressure Values and Support Vector Regression	310

Direct Solar Radiation Prediction Based on Soft-Computing Algorithms Including Novel Predictive Atmospheric Variables	318
A Novel Coral Reefs Optimization Algorithm for Multi-objective Problems	326
Fuzzy Clustering with Grouping Genetic Algorithms  S. Salcedo-Sanz, L. Carro-Calvo, A. Portilla-Figueras, L. Cuadra, and D. Camacho	334
Graph-Based Substructure Pattern Mining Using CUDA Dynamic Parallelism	342
Scaling Up Covariance Matrix Adaptation Evolution Strategy Using Cooperative Coevolution	350
Gradient Boosting-Based Negative Correlation Learning	358
Metamodel Assisted Mixed-Integer Evolution Strategies Based on Kendall Rank Correlation Coefficient	366
Semi-supervised Ranking via List-Wise Approach	376
Gaussian Process for Transfer Learning through Minimum Encoding  Hao Shao, Rui Xu, and Feng Tao	384
Kernel Based Manifold Learning for Complex Industry Fault Detection	392
An Estimation of Distribution Algorithm for the 3D Bin Packing Problem with Various Bin Sizes	401
Accelerating BIRCH for Clustering Large Scale Streaming Data Using CUDA Dynamic Parallelism	409
Swarm Intelligence in Big Data Analytics	417

Table of Contents	XVII
Multidimensional Dynamic Trust Measurement Model with Incentive Mechanism for Internetware	427
Global Path Planning of Wheeled Robots Using a Multi-Objective Memetic Algorithm	437
Quantifying Flow Field Distances Based on a Compact Streamline Representation	445
MCGA: A Multiobjective Cellular Genetic Algorithm Based on a 3D Grid	455
Multi-Objective Particle Swarm Optimization Algorithm Based on Population Decomposition	463
An Effective Ant Colony Approach for Scheduling Parallel Batch-Processing Machines	471
Understanding Instance Complexity in the Linear Ordering Problem  Josu Ceberio, Leticia Hernando, Alexander Mendiburu, and Jose A. Lozano	479
Multi-Objective Evolutionary Algorithm Based on Decomposition for Air Traffic Flow Network Rerouting Problem	487
Temporal Dependence in Legal Documents	497
Learning-Guided Exploration in Airfoil Optimization	505
A Trigram Language Model to Predict Part of Speech Tags Using Neural Network  Dinesh Kumar Kashyap and Gurpreet Singh Josan	513
Handling Different Levels of Granularity within Naive Bayes Classifiers	521
Genetic Algorithm on GPU Performance Optimization Issues	529

Optimisers: Preliminary Results
Velocity Divergence of CCPSO in Large Scale Global Optimization Shanqing Hu and Bin Li
Machine Learning Enhanced Multi-Objective Evolutionary Algorithm Based on Decomposition
High against Low Quantile Comparison for Biomarker and Classifier Evaluation
Learning a Label-Noise Robust Logistic Regression: Analysis and Experiments
Hybrid Bacterial Foraging Algorithm for Data Clustering
Swarm Intelligence with Clustering for Solving SAT
Multilevel Bee Swarm Optimization for Large Satisfiability Problem Instances
Voting-XCSc: A Consensus Clustering Method via Learning Classifier System
Distance Weighted Cosine Similarity Measure for Text Classification Baoli Li and Liping Han
A Survey on Benchmarks for Big Data and Some More Considerations
Spectral Clustering Algorithm Based on Local Sparse Representation Sen Wu, Min Quan, and Xiaodong Feng
Author Index