

Contents

Evolutionary Algorithms

A Hybrid Group Search Optimizer with Opposition-Based Learning and Differential Evolution	3
<i>Chengwang Xie, Wenjing Chen, and Weiwei Yu</i>	
A New Firefly Algorithm with Local Search for Numerical Optimization. . . .	13
<i>Hui Wang, Wenjun Wang, Hui Sun, Jia Zhao, Hai Zhang, Jin Liu, and Xinyu Zhou</i>	
A New Trend Peak Algorithm with X-ray Image for Wheel Hubs Detection and Recognition	23
<i>Wei Li, Kangshun Li, Ying Huang, and Xiaoyang Deng</i>	
Community Detection Based on an Improved Genetic Algorithm	32
<i>Kangshun Li and Lu Xiong</i>	
Selecting Training Samples from Large-Scale Remote-Sensing Samples Using an Active Learning Algorithm.	40
<i>Yan Guo, Li Ma, Fei Zhu, and Fujiang Liu</i>	
Coverage Optimization for Wireless Sensor Networks by Evolutionary Algorithm.	52
<i>Kangshun Li, Zhichao Wen, and Shen Li</i>	
Combining Dynamic Constrained Many-Objective Optimization with DE to Solve Constrained Optimization Problems	64
<i>Xi Li, Sanyou Zeng, Liting Zhang, and Guilin Zhang</i>	
Executing Time and Cost-Aware Task Scheduling in Hybrid Cloud Using a Modified DE Algorithm.	74
<i>Yuanyuan Fan, Qingzhong Liang, Yunsong Chen, Xuesong Yan, Chengyu Hu, Hong Yao, Chao Liu, and Deze Zeng</i>	
A Novel Differential Evolution Algorithm Based on JADE for Constrained Optimization	84
<i>Kangshun Li, Lei Zuo, Wei Li, and Lei Yang</i>	
A New Ant Colony Classification Mining Algorithm.	95
<i>Lei Yang, Kangshun Li, Wensheng Zhang, Yan Chen, Wei Li, and Xinghao Bi</i>	

A Dynamic Search Space Strategy for Swarm Intelligence	107
<i>Shuiping Zhang, Wang Bi, and Xuejiao Wang</i>	
Adaptive Mutation Opposition-Based Particle Swarm Optimization	116
<i>Lanlan Kang, Wenyong Dong, and Kangshun Li</i>	
Quick Convergence Algorithm of ACO Based on Convergence	
Grads Expectation	129
<i>Zhongming Yang, Yong Qin, Huang Han, and Yunfu Jia</i>	
A New GEP Algorithm and Its Applications in Vegetable Price Forecasting	
Modeling Problems	139
<i>Lei Yang, Kangshun Li, Wensheng Zhang, and Yaolang Kong</i>	
An Optimized Clustering Algorithm Using Improved Gene	
Expression Programming	150
<i>Shuling Yang, Kangshun Li, Wei Li, and Weiguang Chen</i>	
Predicting Acute Hypotensive Episodes Based on Multi GP	161
<i>Dazhi Jiang, Bo Hu, and Zhijian Wu</i>	
Research on Evolution Mechanism in Different-Structure Module	
Redundancy Fault-Tolerant System	171
<i>Xiaoyan Yang, Yuanxiang Li, Cheng Fang, Cong Nie, and Fuchuan Ni</i>	
Intelligent Simulation Algorithms	
Application of Neural Network for Human Actions Recognition	183
<i>Tomasz Hachaj and Marek R. Ogiela</i>	
The Improved Evaluation of Virtual Resources' Performance Algorithm	
Based on Computer Clusters.	192
<i>Suping Liu</i>	
Bayesian Optimization Algorithm Based on Incremental Model Building	202
<i>Jintao Yao, Yuyan Kong, and Lei Yang</i>	
An Improved DBOA Based on Estimation of Model Similarity.	210
<i>Yuyan Kong, Jintao Yao, and Lei Yang</i>	
Person Re-identification Based on Part Feature Specificity	219
<i>Dengyi Zhang, Qian Wang, Xiaoping Wu, and Yu Cao</i>	
A Gaussian Process Based Method for Antenna Design Optimization	230
<i>Jincheng Zhang, Sanyou Zeng, Yuhong Jiang, and Xi Li</i>	

An Improved Algorithm of Watermark Preprocessing Based on Arnold Transformation and Chaotic Map	241
<i>Dongbo Zhang and Jingbo Zhang</i>	
An Agent-Based Model for Intervention Planning Among Communities During Epidemic Outbreaks	248
<i>Loganathan Ponnambalam, A.G. Rekha, and Yashasvi Laxminarayan</i>	
The Comparisons Between the Improved Numerical Mode-Matching Method (NMM) and the Traditional NMM Using for Resistivity Logging . . .	256
<i>Dun Yueqin and Kong Yu</i>	
Negative Correlation Learning with Difference Learning	264
<i>Yong Liu</i>	
SURF Feature Description of Color Image Based on Gaussian Model	275
<i>Wen Sun, Qian Shen, and Chanjuan Liu</i>	
Data Mining and Cloud Computing	
An Improved Adaptive Hexagon and Small Diamond Search	287
<i>Fu Mo and Kangshun Li</i>	
A Research of Virtual Machine Resource Scheduling Strategy Based on Cloud Computing	294
<i>Jun Nie</i>	
Multiple DAGs Workflow Scheduling Algorithm Based on Reinforcement Learning in Cloud Computing	305
<i>Delong Cui, Wende Ke, Zhiping Peng, and Jinglong Zuo</i>	
An Improved Parallel K-Means Algorithm Based on Cloud Computing	312
<i>Dongbo Zhang and Yanfang Shou</i>	
Research on the Integration of Spatial Data Service Based on Geographic Service	321
<i>Lei Shang, Shujing Xu, Wei Hou, and Lipeng Zhou</i>	
Predicting Maritime Groundings Using Support Vector Data Description Model.	329
<i>A.G. Rekha, Loganathan Ponnambalam, and Mohammed Shahid Abdulla</i>	
Estimating Parameters of Van Genuchten Equation Based on Teaching-Learning-Based Optimization Algorithm.	335
<i>Fahui Gu, Kangshun Li, Lei Yang, and Wei Li</i>	

Analysis of Network Management and Monitoring Using Cloud Computing. . .	343
<i>George Suciu, Victor Suciu, Razvan Gheorghe, Ciprian Dobre, Florin Pop, and Aniello Castiglione</i>	
A Game-Theoretic Approach to Network Embedded FEC over Large-Scale Networks.	353
<i>Christian Esposito, Aniello Castiglione, Francesco Palmieri, and Massimo Ficco</i>	
The Research on Large Scale Data Set Clustering Algorithm Based on Tag Set	365
<i>Qiang Chen</i>	
Partitioned Parallelization of MOEA/D for Bi-objective Optimization on Clusters.	373
<i>Yuehong Xie, Weiqin Ying, Yu Wu, Bingshen Wu, Shiyun Chen, and Weipeng He</i>	
A Double Weighted Naive Bayes for Multi-label Classification.	382
<i>Xuesong Yan, Wei Li, Qinghua Wu, and Victor S. Sheng</i>	
An Improved Keyword Search on Big Data Graph with Graphics Processors	390
<i>Xiu He and Bo Yang</i>	
Applications and Security	
Rural Micro-credit Decision Model Based on Principle of Risk Control	401
<i>Jiali Lin, Dazhi Jiang, and Kangshun Li</i>	
A Video Deduplication Scheme with Privacy Preservation in IoT	409
<i>Xuan Li, Jie Lin, Jin Li, and Biao Jin</i>	
Accurate 3D Reconstruction of Face Image Based on Photometric Stereo. . .	418
<i>Yongqing Lei, Yujuan Sun, Zeju Wu, and Zengfeng Wang</i>	
Business Process Merging Based on Topic Cluster and Process Structure Matching	424
<i>Ying Huang and Ilsun You</i>	
The BPSO Based Complex Splitting of Context-Aware Recommendation . . .	435
<i>Shuxin Yang, Qiuying Peng, and Le Chen</i>	
A Method for Calculating the Similarity of Web Pages Based on Financial Ontology	445
<i>Lu Xiong, Kangshun Li, and Suping Liu</i>	

An Expert System for Tractor Fault Diagnosis Based on Ontology and Web	456
<i>Chunyin Wu, Qing Ouyang, Shouhua Yu, Chengjian Deng, Xiaojuan Mao, and Tiansheng Hong</i>	
A Kuramoto Model Based Approach to Extract and Assess Influence Relations	464
<i>Marcello Trovati, Aniello Castiglione, Nik Bessis, and Richard Hill</i>	
PEMM: A Privacy-Aware Data Aggregation Solution for Mobile Sensing Networks	474
<i>Zhenzhen Xie, Liang Hu, Feng Wang, Jin Li, and Kuo Zhao</i>	
SmartNV: Smart Network Virtualization Based on SDN	483
<i>Xiaodi Yu, Hu Liang, Fu Tao, Li Jin, and Zhao Kuo</i>	
Image Feature Extract and Performance Analysis Based on Slant Transform. . .	489
<i>Jinglong Zuo, Delong Cui, Hui Yu, and Qirui Li</i>	
Offline Video Object Retrieval Method Based on Color Features	495
<i>Zhaoquan Cai, Yihui Liang, Hui Hu, and Wei Luo</i>	
A Traffic-Congestion Detection Method for Bad Weather Based on Traffic Video	506
<i>Jieren Cheng, Boyi Liu, and Xiangyan Tang</i>	
Uncertainty-Based Sample Optimization Strategies for Large Forest Samples Set	519
<i>Yan Guo, Wenyi Liu, and Fujian Liu</i>	
A PCB Short Circuit Locating Scheme Based on Near Field Magnet Specific Point Detecting.	531
<i>Shuqiang Huang, Jielin Zeng, Hongchun Zhou, Zhusong Liu, and Yuyu Zhou</i>	
Prosodic Features Based Text-dependent Speaker Recognition with Short Utterance	541
<i>Jianwu Zhang, Jianchao He, Zhendong Wu, and Ping Li</i>	
User Oriented Semi-automatic Method of Constructing Domain Ontology . . .	553
<i>Chao Qu, Fagui Liu, Hui Yu, Ruifen Yuan, and Anxiong Wang</i>	
Research and Implementation for Rural Medical Information Extraction Method.	562
<i>Yutong Gao, Feifan Song, Xiaqing Xie, Shengnan Geng, and Wenling Tang</i>	

A Finger Vein Recognition Algorithm Using Feature Block Fusion and Depth Neural Network.	572
<i>Cheng Chen, Zhendong Wu, Ping Li, Jianwu Zhang, Yani Wang, and Hailong Li</i>	
A New Process Meta-model for Convenient Process Reconfiguration.	584
<i>Xin Li and Chao Fang</i>	
Efficient ORAM Based on Binary Tree without Data Overflow and Evictions	596
<i>Shufeng Li, Minghao Zhao, Han Jiang, Qiuliang Xu, and Xiaochao Wei</i>	
A Novel WDM-PON Based on Quantum Key Distribution FPGA Controller.	608
<i>Yunlu Wang, Hao Wen, Zhihua Jian, and Zhendong Wu</i>	
New Security Challenges in the 5G Network	619
<i>Seira Hidano, Martin Pečovský, and Shinsaku Kiyomoto</i>	
A Method of Network Security Situation Assessment Based on Hidden Markov Model	631
<i>Shuang Xiang, Yanli Lv, Chunhe Xia, Yuanlong Li, and Zhihuan Wang</i>	
Chaotic Secure Communication Based on Synchronization Control of Chaotic Pilot Signal.	640
<i>Honghui Lai and Ying Huang</i>	
The Privacy Protection Search of Spam Firewall.	648
<i>Kangshun Li and Zhichao Wen</i>	
Study on Joint Procurement of Auto Parts Business Partner Selection	659
<i>Bin Liu, Lengxi Wu, Xiaoyan Luo, and Youyuan Wang</i>	
Research on Ontology-Based Knowledge Modeling of Design for Complex Product	665
<i>Xiaoyan Luo, Yu Zhou, Bin Liu, and Youyuan Wang</i>	
Learning-Based Privacy-Preserving Location Sharing.	672
<i>Nan Shen, Xuan Chen, Shuang Liang, Jun Yang, Tong Li, and Chunfu Jia</i>	
A Two-Lane Cellular Automata Traffic Model Under Three-Phase Traffic Theory	683
<i>Yu Wang, Jianmin Xu, and Peiqun Lin</i>	
Research on Knowledge Association and Reasoning of Product Design	689
<i>Nan Jiang, Pingan Pan, Youyuan Wang, and Lu Zhao</i>	

Channel Power Control of Genetic-Nonlinear Algorithm Based on Impairment Aware in Optical Network.	696
<i>Dongyan Zhao, Shuo Cheng, Yichuan Zheng, Xiaoyu Wang, and Jian Sun</i>	
Optimal Low-Hit-Zone Frequency-Hopping Sequence Set via Cyclotomy. . . .	704
<i>Haiyan Zhao, Xiangqian Dong, Changyuan Wang, and Wenfei Chen</i>	
USPD Doubling or Declining in Next Decade Estimated by WASD Neuronet Using Data as of October 2013	712
<i>Yunong Zhang, Zhengli Xiao, Dongsheng Guo, Mingzhi Mao, and Hongzhou Tan</i>	
Prediction on Internet Safety Situation of Relevance Vector Machine about GP-RVM Kernel Function.	724
<i>Xiaolan Xie, Zhen Long, and Fahui Gu</i>	
Author Index	735

Computational Intelligence and Intelligent Systems
7th International Symposium, ISICA 2015, Guangzhou,
China, November 21-22, 2015, Revised Selected Papers
Li, K.; Li, J.; Liu, Y.; Castiglione, A. (Eds.)
2016, XV, 737 p. 277 illus., Softcover
ISBN: 978-981-10-0355-4