Contents

Invited Talks

User-Centric Models of Temporal and Spatiotemporal Data: A Perspective of Granular ComputingXXIII Witold Pedrycz
Intelligent Social Network ModelingXXV Ronald R. Yager
What is Your Software Worth?
Personalized Recommender Systems for e-Government and e-Business Intelligence XXIX Jie Lu
Part I: Optimization and Biological Inspired Computation
A Novel TinyOS 2.x Routing Protocol with Load Balance Named CTP-TICN 3 Yang Song, Yaqiong Chai, Fengrui Ye, Wenqiang Xu
Adaptive Nonlinear Guidance Law Considering Autopilot Dynamics 11 Dan Yang, Liang Qiu 11
An Immune-Enhanced Unfalsified Controller for a High-Speed Spinning Process 19 Lezhi Wang, Yongsheng Ding, Kuangrong Hao, Xiao Liang
Real-Time Adaptive Task Allocation Algorithm with Parallel Dynamic Coalition in Wireless Sensor Networks 25 Chengyu Chen, Wenzhong Guo, Guolong Chen 25



Optimization of Seedlings Transplanting Strategy Based on Greedy Algorithm	33
An Investigation of Squeaky Wheel Optimization Approach to Airport Gate Assignment Problem Xueyan Song, Yanjun Jiang	41
A Suppression Operator Used in TMA Jungan Chen, Qiaowen Zhang, Zhaoxi Fang	47
Existence and Simulations of an Impulsive Appropriate Pest Management SI Model with Biological and Chemical Control	53
Existence and Simulations of Periodic Solution of a Predator-Prey System with Holling-Type Response and Impulsive Effects	61
A Novel Selection Operator of Cultural Algorithm	71
An Approach to Analyzing LOH Data of Lung Cancer Based on Biclustering and GA Jun Wang, Hongbin Yang, Yue Wu, Zongtian Liu, Zhou Lei	79
Using Simulated Binary Crossover in Particle Swarm Optimization Xiaoyu Huang, Engiang Lin, Yujie Ji, Shijun Qiao	85
Part II: Distributed and Parallel Intelligence	
A Parallel Cop-Kmeans Clustering Algorithm Based on MapReduce Framework Chao Lin, Yan Yang, Tonny Rutayisire	93
Design of Aerospace Data Parallel Pre-processing Ground System Based Grid Workflow Chaobin Zhu, Baoqin Hei, Jiuxing Zhang	103
Development Platform for Heterogeneous Wireless Sensor Networks <i>Xu Chong</i>	113
Knowledge-Based Resource Management for Distributed Problem Solving Sergey Kovalchuk, Aleksey Larchenko, Alexander Boukhanovsky	121
Research on and Realization of an Adaptive Clock Synchronization Algorithm for Distributed Systems Jia Yang, Piyan He	129

Realistic Task Scheduling with Contention Awareness Genetic Algorithm	
by Fuzzy Routing in Arbitrary Heterogeneous Multiprocessor Systems	135
Nafiseh Sedaghat, Hamid Tabatabaee-Yazdi, Mohammad-R Akbarzadeh-T	

Part III: Robotics

Tsallis Statistical Distribution in a Completely Open System with OLM Formalism	147
Heling Li, Bin Yang, Yan Ma	
Symbolic Controller with PID Feedback for Locally Linearized System Bin Xu, Tianyi Wang, Haibin Duan	153
Multistage Decision Making Based on One-Shot Decision Theory Peijun Guo, Yonggang Li	159
Speed Control for Under-actuated Planar Biped Robot	165
Performance Analytical Model for Interbay Material Handling System with Shortcut and Blocking Lihui Wu, Jianwei Wang, Jie Zhang	173
Robotic 3D Reaching through a Development-Driven Double NeuralNetwork ArchitectureFei Chao, Lin Hu, Minghui Shi, Min Jiang	179
Automatic C. Elgance Recognition Based on Symmetric Similarity inBio-MicromanipulationRong Zhang, Shichuan Tang, Jingkun Zhao, Shujing Zhang, Xu Chen,Bin Zhang	185
Multi-sensor System of Intellectual Handling Robot Control on the Basis of Collective Learning Paradigm Nikolay Tushkanov, Vladimir Nazarov, Alla Kuznetsova, Olga Tushkanova	195
A Polynomial-Time Algorithm for the Planar Quantified Integer Programming Problem Zhiyao Liang, K. Subramani	201
Building Computational Model of Emotion Based on Particle System Yan-jun Yin, Wei-qing Li	213
Hölder Type Inequality and Jensen Type Inequality for Choquet Integral Xuan Zhao, Qiang Zhang	219

Part IV: Knowledge Engineering and Management

Research on Web Semantic Information Retrieval Technology Based on Ontology Hong Zhou, Jun Liu	227
A Knowledge Base Construction Method Based on Cognitive Model Liwei Tan, Shisong Zhu, Wenhui Man	235
Study on Supplier Selection Model for Supply Chain Collaboration <i>Xing Xu, Renwang Li, Xinli Wu</i>	241
A Generation Method for Requirement of Domain Ontology Evolution Based on Machine Learning in P2P Network Jianquan Dong, Mingying Yang, Guangfeng Wang	247
A Service Chain for Digital Library Based on Cloud Computing Mengxing Huang, Wencai Du	261
An Enterprise Knowledge Management System (EKMS) Based on Knowledge Evaluation by the Public Feng Dai, Xinjian Gu, Lusha Zeng, Yihua Ni	267
Using OWA Operators to Integrate Group Attitudes towards Consensus Iván Palomares, Jun Liu, Yang Xu, Luis Martínez	273
Criteria-Based Approximate Matching of Large-Scale Ontologies Shuai Liang, Qiangyi Luo, Guangfei Xu, Wenhua Huang, Yi Zhang	283
Route Troubleshooting Expert System Based on Integrated Reasoning <i>Hui-fen Dong, Chu Cui, Guang Li</i>	289
Design and Implementation of Ontology-Based Search Algorithm for Internal Website Wenyuan Tao, Haitao Zhang, Wenhuan Lu, Shengbei Wang	297
Knowledge-Based Model Representation and Optimization of Micro Device Zheng Liu, Hua Chen	303
Modeling Supply Chain Network Design Problem with Joint Service Level Constraint Guoqing Yang, Yankui Liu, Kai Yang	311
An Ontology-Based Task-Driven Knowledge Reuse Framework for Product Design Process Jun Guo, Xijuan Liu, Yinglin Wang	319

Part V: Data Mining, NLP and Information Retrieval

A LDA-Based Approach to Lyric Emotion Regression Deshun Yang, Xiaoou Chen, Yongkai Zhao	331
An Online Fastest-Path Recommender System	341
A Computer Dynamic Forensic Technique Based on Outlier Detection Bin Huang, Wenfang Li, Deli Chen, Junjie Chen	349
Sentence Compression with Natural Language Generation	357
Feature and Sample Weighted Support Vector MachineQiongsheng Zhang, Dong Liu, Zhidong Fan, Ying Lee, Zhuojun Li	365
Research on Dictionary Construction in Automatic Correcting	373
TEM Research Based on Bayesian Network and Neural Network <i>Fu-li Bai, Hai-feng Cao, Tong Li</i>	379
Morphological Analysis Based Part-of-Speech Tagging for Uyghur Speech Synthesis Guljamal Mamateli, Askar Rozi, Gulnar Ali, Askar Hamdulla	389
Where Scene Happened in Text on Relevant Measures Hanjing Li, Ruizhi Dong	397
Chinese Zero Anaphor Detection: Rule-Based Approach	403
Enhancing Concept Based Modeling Approach for Blog Classification Ramesh Kumar Ayyasamy, Saadat M. Alhashmi, Siew Eu-Gene, Bashar Tahayna	409
A Distributed Clustering with Intelligent Multi Agents System for Materialized Views Selection	417
One Method for On-Line News Event Detection Based on the News Factors Modeling	427
Automatic Recognition of Chinese Unknown Word for Single-Character and Affix Models Xin Jiang, Ling Wang, Yanjiao Cao, Zhao Lu	435

Social Media Communication Model Research Bases on Sina-weibo Ming Wu, Jun Guo, Chuang Zhang, Jianjun Xie	445
A Simple and Direct Privacy-Preserving Classification Scheme Rongrong Jiang, Tieming Chen	455
Guess-Answer: Protecting Location Privacy in Location Based Services Yingjie Wu, Sisi Zhong, Xiaodong Wang	465
Clustering Blogs Using Document Context Similarity and Spectral Graph Partitioning Ramesh Kumar Ayyasamy, Saadat M. Alhashmi, Siew Eu-Gene, Bashar Tahayna	475
Enhancing Automatic Blog Classification Using Concept-Category Vectorization Ramesh Kumar Ayyasamy, Saadat M. Alhashmi, Siew Eu-Gene, Bashar Tahayna	487
A Naïve Automatic MT Evaluation Method without Reference Translations Junjie Jiang, Jinan Xu, Youfang Lin	499
Combining Naive Bayes and Tri-gram Language Model for Spam Filtering	509
Rare Query Expansion via Wikipedia for Sponsored Search	521
An Automatic Service Classification Approach	531
Part VI: Data Simulation and Information Integration	
A Method for Improving the Consistency of Fuzzy Complementary Judgement Matrices Based on Satisfaction Consistency and Compatibility Yong Zeng, Zhoujing Wang	543
Study on EKF-Based Optimal Phase-Adjusted Pseudorange Algorithm for Tightly Coupled GPS/SINS Integrated System Yingjian Ding, Jiancheng Fang	553
Study of Spatial Data Index Structure Based on Hybrid Tree Yonghui Wang, Yunlong Zhu, Huanliang Sun	559

XXI

Research on an Improved GuTao Method for Building Domain Ontologies	567
Guoyan Xu, Tianshu Yu	
Research and Application of Hybrid-Driven Data Warehouse Modeling Method Junliang Xu, Boyi Xu, Hongming Cai	575
Traditional Chinese Medicine Syndrome Knowledge Representation Model of Gastric Precancerous Lesion and Risk Assessment Based on Extenics	585
Weili Chen, Aizi Fang, Wenhui Wang	
Theorem about Amplification of Relational Algebra by Recursive	5 01
Objects Veronika V. Sokolova, Oxana M. Zamyatina	591
A Building Method of Virtual Knowledge Base Based on Ontology	
Mapping	597
Research on Computer Science Domain Ontology Construction and Information Retrieval	603
Dandan Li, Jianwei Du, Shuzhen Yao	005
A New LED Screen Dynamic Display Technology	609
Redundant and Conflict Detection in Knowledge Management System <i>Kaixiang Wang, Yinglin Wang</i>	617
Part VII: Formal Engineering and Reliability	
Measuring Method of System Complexity	627
Research on Channel Estimation of Uplink for MC-CDMA Based on	
OFDM Qiuxia Zhang, Yuanjie Deng, Chao Song	631
Properties of Linguistic Truth-Valued Intuitionistic Fuzzy Lattice Fengmei Zhang, Yunguo Hong, Li Zou	637
Formal Engineering with Fuzzy Logic	643
An Approach to the Analysis of Performance, Reliability and Risk in Computer Systems	653
Victoria López, Matilde Santos, Toribio Rodríguez	

XXII Contents

Empirical Bayes Estimation in Exponential Model Based on Record Values under Asymmetric Loss Haiping Ren	659
Image Registration Algorithm Based on Regional Histogram Divergence and Wavelet Decomposition Cheng Xin, Bin Niu	669
Some Preservation Results of Location Independent Riskier Order Bo-de Li, Jie Zhi	677
A Method Based on AHP to Define the Quality Model of QuEF M. Espinilla, F.J. Domínguez-Mayo, M.J. Escalona, M. Mejías, M. Ross, G. Staples	685
Patterns for Activities on Formalization Based Requirements Reuse Zheying Zhang, Jyrki Nummenmaa, Jianmei Guo, Jing Ma, Yinglin Wang	695
Author Index	709