Contents

Part I Communication Technologies and Applications

1 Studies on Single Observer Passive Location Tracking Algorithm Based on LMS-PF ............................................. 3 Jing-bo He, Sheng-liang Hu and Zhong Liu

2 Novel Methods for Extending Optical Code Set for Coherent OCDMA ......................................................... 11 Chen Peng

3 A Sequential Processing Method for Converted Measurement Kalman Filters Based on Orthogonal Transform ........ 19 Junlin Tian, Chengyu Fu and Tao Tang

4 Improvement of an ID-Based Threshold Signcryption Scheme ................................................................. 29 Wei Yuan, Liang Hu, Xiaochun Cheng, Hongtu Li, Jianfeng Chu and Yuyu Sun

5 Cryptanalysis of an Enhanced Event Signature Protocols for Peer-to-Peer Massively Multiplayer Online Games .... 37 Wei Yuan, Liang Hu, Hongtu Li and Jianfeng Chu


7 Analysis and Test of the Exposure Synchronization of the Multi-Sensor Aerial Photogrammetric Camera System .......... 55 Zhuo Shi, Li Yingcheng and Qu Lei
8 Design and Application of Custom RS485 Communication Protocol .............................. 63
Lei Zhou, Hu Liu and Quanyin Zhu

9 Sensitivity of Neurons Exposed to AC Induction Electric Field ...................................... 73
Xiu Wang, Jiang Wang, Yanqiu Che, Chunxiao Han,
Bin Deng and Xile Wei

10 Spectra of Discrete Multi-Splitting Waveform Relaxation Methods to Determining Periodic Solutions of Linear Differential-Algebraic Equations ........................ 83
Xiaolin Lin, Liming Liu, Hong Wei, Yuan Sang,
Yumei Wang and Ronghui Lu

11 A Low Power Limiting Amplifier Designed for the RSSI of a 5.8 GHz ETC Receiver ........................ 95
Hang Yu, Yan Li, Wongchen Wei, Lai Jiang,
Shengyue Lin and Zhen Ji

12 A 3rd order Opamp-Based Tunable Low-Pass Filter Design for Data Demodulator of a 5.8 GHz ETC RF Receiver ........................ 103
Yan Li, Hang Yu, Shengyue Lin, Lai Jiang,
Rongchen Wei and Zhen Ji

13 Sensor Fusion Using Improvement of Resampling Algorithm Particle Filtering for Accurate Location of Mobile Robot ...... 111
Xiang Gao and YaPing Fu

Part II Intelligence and Biometrics Technologies

14 Sensor Placement Modes for Smartphone Based Pedestrian Dead Reckoning .............................. 123
Shahid Ayub, Xiaowei Zhou, Sorouh Honary,
Alireza Bahraminasab and Bahram Honary

15 A New Methodology of Judging the Observability of the System ...................................... 133
Xuehan Cheng and Yunxia Gao

16 Criteria Conditions for Generalized Strictly Diagonally Dominant Matrices .......................... 141
Yujing Liu and Li Guo
17 Nonlinear Retarded Integral Inequalities for Discontinuous Functions and Its Applications .......................... 149
Wu-Sheng Wang, Zizun Li and Anmin Tang

18 Oscillatory and Asymptotic Behavior of a Second Order Nonlinear Differential Equation with Perturbation ...... 161
Li Gao, Quanxin Zhang and Xia Song

19 A Expanded Binary Tree Method of Automatic River Coding and Algorithm .................................. 171
Ji-qiu Deng, Huang-ling Gu and Xiao-qing Luo

20 Domain-Specific Ontology Mapping Based on Common Property Collection .................................. 181
Bo Jiang, Yunzhao Cheng and Jiale Wang

21 Efficient Mobile Electronic Full Declaration System Based on Smart Device .................................. 191
Xianyu Bao, Qing Lu, Bo Zhao, Weimin Zheng and Yang Wang

22 The Predicate System Based on Schweizer–Sklar t-Norm and Its Completeness .......................... 201
Li Qiao-Yan and Cheng Tao

23 Providing Timely Response in Smart Car ......................... 211
Jie Sun, Yongping Zhang, Bobo Wang and Kejia He

24 A Study of Position Tracking Technology in Indoor Environments for Autonomous Wheelchair Driving ...... 221
Sung-Min Kim, Jae-Hoon Jeong, Jung-Hwan Lee and Sung-Yun Park

25 Adaptive Regulation of a Class of Nonlinear Systems with Unknown Sinusoidal Disturbances ............... 233
Pengnian Chen

26 Research on Improved Ant Colony Algorithm for TSP Problem .................................. 243
Xiu-juan Qiu and Ting-gui Chen
Part III Networks Systems and Web Technologies

27 Research on Internet of Things Technology .................... 253
Qinian Zhou, Lingling Chen, Ge Li and Zhenhao Zhang

28 Hot Topic Detection Research of Internet Public Opinion
   Based on Affinity Propagation Clustering ...................... 261
Hong Liu and Bi Wei Li

29 TTMP: A Trust-Based Topology Management Protocol
   for Unstructured P2P Systems ............................... 271
Zhiping Liao, Song Liu, Gelan Yang and Jiancun Zhou

30 Indoor Temperature and Humidity Monitoring System Based
   on WSN and Fuzzy Strategy ............................... 283
Bo Chang and Xinrong Zhang

31 Radioactive Target Detection Using Wireless
   Sensor Network ...................................... 293
Tonglin Zhang

32 Optimization of Air Network Applied in the Express Based
   on Hub-and-Spoke Network: A Case Study of SF Express ..... 303
Peng Jianliang, Si Jiandong and Bao Fuguang

33 Verification and Analysis for Ethernet Protocols
   with NuSMV .................................. 311
Yujia Ge, Xiaofei Feng and Fangcheng Tang

34 The Analysis and Modeling on Internet AS-Level Topology
   Based on K-Core Decomposition .......................... 321
Jun Zhang, Hai Zhao and Bo Yang

35 Based on Quasi-IP Address Model of Repeater Coordination ... 331
Shaohong Yan, Lihui Zhou, Hong Wang, Yan Li,
   Lanqian Liu and Mengyuan Chen

36 Fast Dynamic Mesh Moving Based on Background
   Grid Morphing .................................. 339
Tianjun Lin and Zhenqun Guan

37 Research on Network Congestion Control System Based
   on Continuous Time Model ............................. 349
Huang Ze
38 The Realization of OPNET and MATLAB Co-Simulation Based on HLA ........................................... 357
Yu Zhang, Zhen Yao and Xiangming Li

Part IV Data Modeling and Programming Languages

Yuefeng Fang, Xiaoyong Wang and Fei Gao

40 A Protocol for a Message System for the Tiles of the Heptagrid, in the Hyperbolic Plane .......................... 377
Maurice Margenstern

41 Monitoring Information System Quality: Between Reality and User Expectation at Bina Nusantara University........ 387
Anderes Gui, Cecilia Sabrina, Suryanto, Verina Kristian, Vina Margareta and Noviyanti Hadiwidjaja

42 Ordinal-Set Pair Analysis Prediction Model and Application in Liao River Basin ........................................ 395
Jianxin Xu, Yindi Liu, Zezhong Zhang and Yanbin Li

43 Integrated RMS Layout and Flow Path Design: Modelling and a Heuristic method ...................................... 403
Xianping Guan, Baijing Qiu and Hongbing Yang

44 Design and Implementation of Distributed Remote-Reading Water Meter Monitoring System Based on SaaS.......... 413
Junjie Li, Jianjiang Cui, Lilong Jiang, Zhijie Lu and Zhenyu Tan

45 Enabling the Traceability of Web Information Access in Laboratory Management via E-CARGO Model............. 421
Bin Xu

46 An Improved GVF Snake Model Using Magnetostatic Theory ................................................................. 431
Bingyu Chen, Jianhui Zhao, Erqian Dong, Jun Chen, Yang Zhao and Zhiyong Yuan

47 Block Effect Reduction via Model Based Compressive Sensing ............................................................... 441
Jin Jianqiu, Zhang Zhiyong and Jiang Zhaoyi
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>The Design of Logistics Information Platform for the Yangtze River Delta</td>
<td>Peihua Fu and Xiaoli Gu</td>
<td>449</td>
</tr>
<tr>
<td>49</td>
<td>The Case Study for Three Kinds of Mobile Games</td>
<td>Quanyin Zhu, Suqun Cao, Rui Geng and Chuanchun Yu</td>
<td>457</td>
</tr>
<tr>
<td>50</td>
<td>New Methods of Specifying and Modeling Stochastic Concurrent Systems</td>
<td>Jingjing Liao, Mingzhe Wang and Fabin Gu</td>
<td>471</td>
</tr>
<tr>
<td></td>
<td>Part V Digital Image Processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Digital Image Completion Techniques</td>
<td>Chao Huang, Huadong Hu, Chunxiao Liu and Caiyan Xie</td>
<td>481</td>
</tr>
<tr>
<td>52</td>
<td>Application of 2-D Wavelet Transform in Image Compression Based on Matlab</td>
<td>Shi-Gang Hu, Xiao-Feng Wu and Zai-Feng Xi</td>
<td>491</td>
</tr>
<tr>
<td>53</td>
<td>Fingerprint Image Preprocessing Method Based on the Continuous Spectrum Analysis</td>
<td>Xiaosi Zhan and Zhaocai Sun</td>
<td>501</td>
</tr>
<tr>
<td>54</td>
<td>A Zero-Watermarking Algorithm for Digital Map Based on DWT Domain</td>
<td>Yun Ling, Chuan-Feng Lin and Zhi-yong Zhang</td>
<td>513</td>
</tr>
<tr>
<td>55</td>
<td>A Fault-Tolerance Shortest Routing Algorithm with PDPE on (n, k)-Star Graph for NoC</td>
<td>Jianguo Xing and Ming Feng</td>
<td>523</td>
</tr>
<tr>
<td>56</td>
<td>A Robust Zero-Watermarking Algorithm for 2D Vector Digital Maps</td>
<td>W. Xun, H. Ding-jun and Z. Zhi-yong</td>
<td>533</td>
</tr>
<tr>
<td>57</td>
<td>An Efficient Non-Local Means for Image Denoising</td>
<td>Gang Yang, Qiegen Liu and Jianhua Luo</td>
<td>543</td>
</tr>
</tbody>
</table>
59  Motion Object Segmentation Using Regions Classification and Energy Model ........................................... 561
Xiaokun Zhang and Xuying Zhao

60  A Digital Image Scrambling Method Based on Hopfield Neural Network ............................................. 569
Li Tu and Xuehua Huang

61  Lattice Boltzmann Anisotropic Diffusion Model Based Image Segmentation ............................................. 577
Qian Wu, Yu Chen and Gang Teng

Part VI Optimization and Scheduling

62  Research on New Distributed Solution Method of Complex System Based on MAS ................................. 589
Weijin Jiang, F. Guo Fan and Luo Zhong

63  An Order-Searching Genetic Algorithm for Multi-Dimensional Assignment Problem ............................... 597
Yazhen Jiang, Xinming Zhang and Li Zhou

64  The Heuristic Algorithm of Stacking Layer for the Three-Dimensional Packing of Fixed-Size Cargoes .......... 605
Wang-sheng Liu, Hua-yi Yin and Mao-qing Li

65  Research on a Novel Hybrid Optimization Algorithm Based on Agent and Particle Swarm .......................... 613
Weijin Jiang, Xingjun Jiang and Lina Yao

66  A Novel BCC Algorithm for Function Optimization .......................................................... 623
Jia-Ze Sun, Guo-Hua Geng, Ming-Quan Zhou and Wang Shu-Yan

67  Time–Space Hybrid Markov Model .................................................. 633
Xin-yao Zou

68  Research on Turning Parameters Optimization Based on Genetic Algorithm ................................. 641
Youde Wu and Jinchun Feng
69 A Power of a Meromorphic Function Sharing 1 IM with Its Derivative .................................. 649
Wang Gang and Gong Dianxuan

70 The Application of Particle Swarm Optimization in Stock Prediction and Analysis ..................... 659
Guorong Xiao

71 Research on a Novel Distributed Multi Agent System Plan Method ........................................ 665
Weijin Jiang, Qing Jiang, Hong Li and Yan Su

72 A Method of Object Detection Based on Improved Gaussian Mixture Model ............................... 673
Jiajia Sun, Yanan Lian and Yumin Tian

73 A Novel Dynamic Resource Allocation Model Based on MAS Coordination .............................. 681
Weijin Jiang, Luo Zhong, Yuhui Xu and Yan Su

Part VII Education and Informatics

74 Research on Comprehensive Evaluation of Classroom Teaching Quality Based on Multi-Element Connection Number ........ 691
Liao Xinfei

75 Program Design of DEA Based on Windows System .......... 699
Ma Zhanxin, Ma Shengyun and Ma Zhanying

76 An Incremental and Autonomous Visual Learning Algorithm Based on Internally Motivated Q Learning .................. 709
Qu Xinyu, Yao Minghai and Gu Qinlong

77 Design and Implement of Information System for Water Management Based on SaaS .................... 721
Lilong Jiang, Junjie Chen, Zhijie Lu and Junjie Li

78 Pulse-Based Analysis on Teaching Quality Evaluation ........ 729
Aijun Zhang, Yujia Ge and Biwei Li

79 French Learning Online Platform: French Livehand ........ 739
Mei Ying Lu, Chun Lai Chai and Yu Shen
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>Application of Text Data Mining to Education in Long-Distance</td>
<td>Jianjie Song and Hean Liu</td>
<td>745</td>
</tr>
<tr>
<td>81</td>
<td>Adaptive Disturbance Rejection Control of Linear Time Varying System</td>
<td>Dangjun Zhao, Zheng Wang, Yongji Wang and Weibing Hu</td>
<td>755</td>
</tr>
<tr>
<td>83</td>
<td>Analysis and Circuit Simulation of a New Four-Dimensional Lorenz Time-Delay Chaotic System</td>
<td>Cui Zhiyong, Fan Zhongkui and Cao Panjing</td>
<td>773</td>
</tr>
<tr>
<td>84</td>
<td>The Design of Adaptive PI Speed Controller for Permanent Magnet Synchronous Motor Servo System</td>
<td>Yulin Gong and Yongyin Qu</td>
<td>783</td>
</tr>
<tr>
<td>85</td>
<td>Application of BP Neural Network in Faults Diagnosis of Process Valve Actuator</td>
<td>Fukai Deng, Erqing Zhang, Qunli Shang, Shan-en Yu and Yifang He</td>
<td>793</td>
</tr>
<tr>
<td>86</td>
<td>Optimal Detection of Distributed Target with Fluctuating Scatterers</td>
<td>Tao Jian</td>
<td>803</td>
</tr>
<tr>
<td>87</td>
<td>Output Feedback Control for an Active Heave Compensation System</td>
<td>Jia-Wang Li, Tong Ge and Xu-Yang Wang</td>
<td>811</td>
</tr>
<tr>
<td>88</td>
<td>Models for Multiple Attribute Decision Making with Intuitionistic Trapezoidal Information</td>
<td>Liang Xiao-yi</td>
<td>821</td>
</tr>
<tr>
<td>89</td>
<td>Modeling the Risk Factors in Ergonomic Processes Using Fuzzy Logic</td>
<td>Prafulla Kumar Manoharan, Sanjay Jha and Bijay Kumar Singh</td>
<td>827</td>
</tr>
<tr>
<td>Page</td>
<td>Title</td>
<td>Authors</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>Modified Projective Synchronization of Uncertain Chaotic Systems</td>
<td>R. Z. Luo, Y. L. Wang and S. C. Deng</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>Multi-Agent Based Architecture Supporting Collaborative Product Lightweight Design</td>
<td>Zheng Liu, Fuyuan Xu, Kai Pan, Xinjian Gu,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yongwei Zhang</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>Fuzzy Controller Design with Fault Diagnosis System Condition On-line Monitor Using Neural Network</td>
<td>Xiaochun Lou</td>
<td></td>
</tr>
</tbody>
</table>

Part IX  Forensics, Recognition Technologies and Applications

| 93   | Fingerprint Orientation Template Matching Based on Mutual Information                   | Xuying Zhao, Xiaokun Zhang, Geng Zhao, Rong  |
|      |                                                                                           | Qian, Xiaodong Li, Kejun Zhang               |
| 94   | Human Action Recognition Algorithm Based on Minimum Spanning Tree                        | Yi Ouyang, Jianguo Xing                      |
| 95   | Analysis of Selvi et al.’s Identity-Based Threshold Signcryption Scheme                  | Wei Yuan, Liang Hu, Hongtu Li, Jianfeng Chu |
| 96   | Analysis of an Authenticated 3-Round Identity-Based Group Key Agreement Protocol         | Wei Yuan, Liang Hu, Hongtu Li, Jianfeng Chu |
| 97   | Research on ECC Digital Certificate in ATN                                               | Wu Zhijun, Lang Jihai, Huang Jun            |
| 98   | A Robust Method Based on Static Hand Gesture Recognition for Human–Computer Interaction Under Complex Background | Xingbao Meng, Jing Lin, Yingchun Ding       |
| 99   | Research on Privacy Preserving Based on K-Anonymity                                      | Xiao-ling Zhu, Ting-gui Chen                 |
100 Existential Forgery Attack Against One Strong Signature Scheme ........................................... 925
Zhengjun Cao and Qian Sha

101 Improved Min-Sum Decoding Algorithm for Moderate Length Low Density Parity Check Codes. .................... 935
Waheed Ullah, Jiangtao and Yang Fengfan

102 Cryptanalysis of an Authentication Protocol for Session Initiation Protocol ........................................ 945
Qi Xie, Mengjie Bao and Haijun Lu

103 A Cognitive Model in Biomimetic Pattern Recognition and Its Applications ........................................ 953
Xiao Xiao, Xianbao Wang, Sunyuan Shen and Shoujue Wang

104 One Way to Enhance the Security of Mobile Payment System Based on Smart TF Card ............................ 961
Xiaoning Jiang, Xiping Wang and Yihao Huang

105 Localization on Discrete Grid Graphs ........................................... 971
Anna Gorbenko, Vladimir Popov and Andrey Sheka

Part X Electronic Applications

106 The Research of Chinese Q&A System Based on Similarity Algorithm ........................................ 981
Liu Zhen, Xiao Wenxian, Wan Wenlong and Yulan Li

107 A Model-Driven Method for Service-Oriented Modeling and Design Based on Domain Ontology .................. 991
Ying Zhang, Xiaoming Liu, Zhixue Wang and Li Chen

108 Design of Three-Dimensional Garage Monitoring System Based on WinCC ........................................ 999
Wenzhe Qi, Yanmei Yang, Lingping Shi, Yafei Liu and Jianjun Meng

109 A Hybrid Modeling Method for Service-Oriented C4ISR Requirements Analysis .................................. 1007
Ying ZHANG, Xiaoming Liu, Zhixue Wang and Li Chen
110 Study on Normalized Operation of Internet Drugs Market  
Feng Chen, Ying Lu, Bin Dun and Ming Lu

111 Study on Accounting Shenanigan in Universities Using 
Improved Game Theory  
Jinfang Zhao

112 Improved Iterative Decoding Algorithm for Turbo Codes 
Zhenchuan Zhang and Jiang Nana

113 Financial Evaluation of the Listed Companies Based 
on Statistical Analysis Methods  
Guofu Zhang

114 Research of the Timer Granularity Based on Linux  
Geng Qingtian, Jiang Nan, Zhao Hongwei and Liu Junling

115 A New Software to Realize the Optimization of City 
Sound-Planning  
Ji Qing

Part XI Graphics and Visualizing

116 Automatic Classification and Recognition of Particles 
in Urinary Sediment Images  
Yan Zhou and Houkui Zhou

117 Ultrasound Strain and Strain Rate Imaging of the Early Sage 
of Carotid Artery with Type 2 Diabetes Mellitus  
Cun Liu, Yanling Zheng, Yuanliu He, Hongxia Xu, Juan Su, 
Lili Zhang, Xiaohong Zhou and Changchun Liu

118 Rate Control for Multi-View Video Coding Based on Statistical 
Analysis and Frame Complexity Estimation  
Qiaoyan Zheng, Mei Yu, Gangyi Jiang, Feng Shao 
and Zongju Peng

119 Time-Consistent Preprocessing of Depth Maps for Depth 
Coding in 3DTV  
Fengfei Sun, Mei Yu, Gangyi Jiang, Feng Shao, 
Zongju Peng and Fucui Li
120 A Mixture of Gaussian-Based Method for Detecting Foreground Object in Video Surveillance .......................... 1109
Xun Wang, Jie Sun and Hao-Yu Peng

121 Video Deformation Based on ASM .............................. 1119
Xiaofei Feng and Yujia Ge

122 An Enhanced Hybrid Image Watermarking Algorithm Using Chaotically Scrambled Technology ..................... 1129
Niansheng Cheng

123 A Digital Watermarking Technology Based on Wavelet Decomposition .................................................. 1137
Song Yijun and Yang Gelan

124 An Improved Rate Control Algorithm of H.264/AVC Based on Human Visual System ............................... 1145
Meifeng Liu and Ling Lu

125 Contour Lines Extraction from Color Scanned Topographical Maps with Improved Snake Algorithm .................... 1153
Huali Zheng and Zhou Wei Guo

126 The Aberration Characteristics of Wave-Front Coding System for Extending the Depth of Field ......................... 1161
Zhang Rong-fu, Wang Liang-liang and Zhou Jinbo

Part XII Green Computing

127 Two Improved Nearest Neighbor Search Algorithms for SPH and Their Parallelization ............................... 1171
Zheng Dequn, Wu Pin, Shang Weilie, Cao Xiaopeng, Zhang Xia and Chen Wei

128 Comprehensive Evaluation of TPL Using Genetic Projection Pursuit Model with AHP in Supply Chain .................. 1181
Fuguang Bao, Jiandong Si, Lei Zhang and Ertian Hua

129 A Modified PID Tuning Fitness Function Based on Evolutionary Algorithm ............................................. 1191
Xiao Long Li and Dong Liu
130 Analysis of Convergence for Free Search Algorithm in Solving Complex Function Optimization Problems. ................. 1201
   Lu Li, Zihou Zhang and Xingyu Wang

131 Design of FH Sequences with Given Minimum Gap Based on Logistic Map 1. ................................................. 1209
   Wan Youhong and Li Jungang

132 Practical Criteria for Generalized Strictly Diagonally Dominant Matrices. ......................................................... 1221
   Yujing Liu, Jie Xu and Li Guo

133 Research on New Rural Information Service Model of Agricultural Industrial Chain ............................................. 1231
   Hai-han Yang, Xing-xia Shuai, Chun-hua Ju and Tie-zhu Zhang

134 Reliability Evaluation Algorithm for Distribution Power System. ................................................................. 1241
   Jianghua Li and Juan Hu

135 State-of-the-Art Line Drawing Techniques. .......................................................... 1249
   Lei Li, Yongqiang Zhou, Chunxiao Liu, Yingying Xu and Jie Fu

136 The Cooperation and Competition Mechanism of Supply Chain Based on Evolutionary Game Theory ................. 1259
   Peng Yang and Fu Pei-Hua

137 A Method of Function Modeling Based on Extenics ................. 1267
   Jing Zhang, Ping Jiang, Jiaqi Wang, Runhua Tan and Yang Yang

138 Application of MCR-ALS Computational Method for the Analysis of Interactions Between Copper Ion and Bovine Serum Albumin .................................................. 1281
   Zhu Xin-feng, Wang Jian-dong and Li Bin

139 Self-Learning Algorithm for Visual Recognition and Object Categorization for Autonomous Mobile Robots . . 1289
   Anna Gorbenko and Vladimir Popov

140 Time-Complexity of the Algorithm for Physical Ability Test ................................................................. 1297
   Feng Qiming
Part XIII  Data Management and Database System

141  A Distributed Keyword Search Algorithm in XML Databases Using MapReduce  ........................................ 1307
     Yun Ling and Guangjian Xu

142  A Combined Data Mining Method and Its Application in Water Quality Trends Analysis  ......................... 1317
     Ji-Min Wang, Ding-Sheng Wan, Yue-Long Zhu and Shi-Jin Li

143  Model of Enterprise Innovation Based on Data Warehousing ................................................................. 1327
     Jianwei Guo, Bingru Yang, Guangyuan Li and Nan Ma

144  Classifying Imbalanced Dataset Using Local Classifier Fusion ............................................................... 1337
     Tong Liu, Weijian Ni and Yongquan Liang

145  Access Frequency Based Energy Efficiency Optimization in Data Centers .................................................. 1347
     Jie Wang, Yangang Cai, Chunxiao Liu, Jiabin Luo and Xinyi Ding

146  Application of Data Mining Technology in Jewelry Design ................................................................. 1357
     Cen Qin

147  Logic Algebra Method for Solving Theoretic Problems of Relational Database ........................................ 1367
     Zhang YiShun and Ju ChunHua

148  Design History Knowledge Management System Based on Product Development Process Management and Its Implementation ................................................................. 1375
     Peisi Zhong, Jiandong Song, Mei Liu, Xueyi Li and Shuhui Ding

149  The Application of Series Importance Points (SIP) Based Partition Method on Hydrological Data Processing .... 1385
     Haixiong Chen

150  A Novel PSO k-Modes Algorithm for Clustering Categorical Data ......................................................... 1395
     Lu Mei and Zhao Xiang-Jun
### Part XIV  E-Commerce and E-Government

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>151</td>
<td>An Analysis of Influential Factors of Human Resource Allocation in Local Taxation System and the Modeling Approaches</td>
<td>Peiling Chen and Tian Yi</td>
<td>1405</td>
</tr>
<tr>
<td>152</td>
<td>Classification Learning System Based on Multi-Objective GA and Frigid Weather Forecast</td>
<td>Zhang Hongwei, Xu Jingxun and Zou Shurong</td>
<td>1417</td>
</tr>
<tr>
<td>153</td>
<td>Empirical Analysis on Choice of Payment Terms in Foreign Capital Acquiring State-Owned Enterprise</td>
<td>Ling Liu and Jingru Wu</td>
<td>1427</td>
</tr>
<tr>
<td>154</td>
<td>An Integrated Application of Tourism Planning Based on Virtual Reality Technology and Indicator Assessment</td>
<td>Yan Zhang and Xun Zhang</td>
<td>1435</td>
</tr>
<tr>
<td>155</td>
<td>A Context Information Management Model for Tour Mobile E-Commerce</td>
<td>Szemin Wong and Dongsheng Liu</td>
<td>1443</td>
</tr>
<tr>
<td>156</td>
<td>Quantitative Quality Evaluation and Improvement in Incremental Financial Software Development</td>
<td>Bin Xu, Meng Chen, Cun Liu, Juefeng Li, Qiwei Zhu and Aleksander J. Kavs</td>
<td>1453</td>
</tr>
<tr>
<td>157</td>
<td>Study on Internet Drug Market Access Management</td>
<td>Ying Lu, Bin Dun, Feng Chen and Ming Lu</td>
<td>1463</td>
</tr>
<tr>
<td>158</td>
<td>Study on the Real-Name System Technology for the Ontology of Internet Medicine Market</td>
<td>Bin Dun, Ying Lu, Feng Chen and Ming Lu</td>
<td>1471</td>
</tr>
<tr>
<td>159</td>
<td>The Combined Stock Price Prediction Model based on BP Neural Network and Grey Theory</td>
<td>Yulian Fei, Junjun Xiao, Ying Chen and Weiwei Cao</td>
<td>1479</td>
</tr>
</tbody>
</table>
### Part XV Social and Economical Systems

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>160</td>
<td>Multivariate Curve Resolution with Elastic Net Regularization</td>
<td>1489</td>
</tr>
<tr>
<td></td>
<td>Zhu Xin-feng, Wang Jian-dong and Li Bin</td>
<td></td>
</tr>
<tr>
<td>161</td>
<td>Research about Exoskeleton’s Reference Trajectory</td>
<td>1501</td>
</tr>
<tr>
<td></td>
<td>Generation Based on RBF Neural Network</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shaowu Dai, Shuangming Li and Zhiyong Yang</td>
<td></td>
</tr>
<tr>
<td>162</td>
<td>The Application of Digital Archives Classification</td>
<td>1513</td>
</tr>
<tr>
<td></td>
<td>with Progressive M-SVM to Wisdom School Building</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Xiaobo Tao</td>
<td></td>
</tr>
<tr>
<td>163</td>
<td>Economic Growth Differential Model and Short-Term Economic Growth</td>
<td>1521</td>
</tr>
<tr>
<td></td>
<td>Momentum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fan Decheng and Liu Kan</td>
<td></td>
</tr>
<tr>
<td>164</td>
<td>A Study of Leading Industries Selection in Comprehensive Cities</td>
<td>1531</td>
</tr>
<tr>
<td></td>
<td>Based on Factor Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Faming Zhang and Zhaoqing Ye</td>
<td></td>
</tr>
<tr>
<td>165</td>
<td>A Programme-Oriented Algorithm to Compute Ord(f(x))</td>
<td>1539</td>
</tr>
<tr>
<td></td>
<td>Lihua Liu and Zhengjun Cao</td>
<td></td>
</tr>
<tr>
<td>166</td>
<td>Finding the Academic Collaboration Chance in Open Research Community</td>
<td>1549</td>
</tr>
<tr>
<td></td>
<td>Bin Xu, Huanyu Zhou, Weigang Chen and Yujia Ge</td>
<td></td>
</tr>
<tr>
<td>167</td>
<td>Analysis of Competition and Cooperation of Ningbo-Zhoushan Port</td>
<td>1559</td>
</tr>
<tr>
<td></td>
<td>and Shanghai Port</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peihua Fu and Yangfei Chen</td>
<td></td>
</tr>
<tr>
<td>168</td>
<td>The Study About Long Memory and Volatility Persistence in China Stock</td>
<td>1569</td>
</tr>
<tr>
<td></td>
<td>Market Based on Fractal Theory and GARCH Model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liu Cheng, Liu Jiankang and He Guozhu</td>
<td></td>
</tr>
<tr>
<td>169</td>
<td>Research on Home-Textile Enterprise-Oriented Comprehensive Management</td>
<td>1575</td>
</tr>
<tr>
<td></td>
<td>Integration Platform and Its Application</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penghui Zhan, Zailin Lu, Renwang Li, Zhigang Bao, Qian Yin and Yongxian</td>
<td></td>
</tr>
</tbody>
</table>
170 Location-Aware Elderly Personal Safety Checking in Smart Home ................................................. 1583
Bin Xu, Zepeng Hu, Peiyou Han and Yujia Ge

171 Research on Maximum Benefit of Tourist Enterprises Based on the Influence of Scenic Spot Ticket Discount Amount ......................................................... 1591
Li Jian, Han Na and Shu Bo

Part XVI Web Service and Data Mining

172 A Fuzzy Multi-Criteria Group Decision Making Approach for Hotel Location Evaluation and Selection ................................................................. 1599
Santoso Wibowo and Hepu Deng

173 Using Online Self-Adaptive Clustering to Group Web Documents ................................................... 1609
Noel Catterall

174 An Order-Based Taxonomy for Text Similarity .................................................................................. 1617
Yi Feng

175 Distributed Intrusion Detection System Using Autonomous Agents Based on DCOM ................. 1625
Yujia GE, Xiaofei Feng and Aijun Zhang

176 A Method for Uncertain Linguistic Multiple Attribute Decision Making and Its Application .......... 1633
Xiao-yi Liang

177 Web2.0 Environment of Personal Knowledge Management Applications ........................................ 1639
Jie Fang and Liqun Gong

178 Semantic Web and Its Applications ................................................................................................ 1647
WenYing Guo

179 A Semantics-Based Web Service Matching Framework and Approach .............................................. 1655
Bo Jiang, Tao He and Jiale Wang
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>Using Integrated Technology to Achieve Three-Dimensional WebGIS System in Park Planning</td>
<td>Hu Lemin, Wu Qianhong, Yang Li and Cheng Chuanzhou</td>
<td>1665</td>
</tr>
<tr>
<td>181</td>
<td>Hierarchical Base-k Chord Based on Semantic Networks</td>
<td>Huayun Yan and Deqian Xue</td>
<td>1673</td>
</tr>
<tr>
<td>182</td>
<td>Enterprises Application Integration Framework Based on Web Services and Its Interfaces</td>
<td>Zhangbing Li, Wujiang Che and Jianxun Liu</td>
<td>1685</td>
</tr>
<tr>
<td>183</td>
<td>The Automatic Classification 3D Point Clouds Based Associative Markov Network Using Context Information</td>
<td>Gang Wang, Ming Li, TingTing Zhou and Longgang Chen</td>
<td>1695</td>
</tr>
<tr>
<td></td>
<td>Author Index</td>
<td></td>
<td>1703</td>
</tr>
</tbody>
</table>
Computer, Informatics, Cybernetics and Applications
Proceedings of the CICA 2011
He, X.; Hua, E.; Lin, Y.; Liu, X. (Eds.)
2012, XXX, 1706 p. 563 illus., Hardcover
ISBN: 978-94-007-1838-8