# 2011 International Conference of Information Technology, Computer Engineering and Management Sciences

**ICM 2011**

**Table of Contents**

**Volume - 1**

1. **Welcome Message - Volume 1**

2. **Organizing Committee - Volume 1**

3. **Reviewers - Volume 1**

---

## Volume 1

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Improved Research of Fault Diagnosis Algorithm in Intelligent BIT Design</td>
<td>3</td>
</tr>
<tr>
<td><em>Peng Zhang, Yuntao Chen, and Youhua Ding</em></td>
<td></td>
</tr>
<tr>
<td>The Information Optimizing Model of Language and Its Verification by Mandarin Phonetic Statistics</td>
<td>7</td>
</tr>
<tr>
<td><em>Qingyuan Tian</em></td>
<td></td>
</tr>
<tr>
<td>The Development Process of Component-Based Application Software</td>
<td>11</td>
</tr>
<tr>
<td><em>Meng Shang, Haitao Wang, and Longqiang Jiang</em></td>
<td></td>
</tr>
<tr>
<td>Prediction of Mechanical Properties of Hot Rolled Strips by BP Artificial Neural Network</td>
<td>15</td>
</tr>
<tr>
<td><em>Yamei Wu and Yong Ren</em></td>
<td></td>
</tr>
<tr>
<td>The Application of ART2 Two-Factor Optimization Method to Engine Fault Diagnosis</td>
<td>18</td>
</tr>
<tr>
<td><em>Ye Sun, Hongxin Wang, Xiang Guo, and Zhejing Yi</em></td>
<td></td>
</tr>
<tr>
<td>Low-Input High-Output Synchronous Rectification Boost DC-DC Simulation Based on MOSFET Model Scaling Down to 22nm</td>
<td>22</td>
</tr>
<tr>
<td><em>Xiaoyang Huang, Wenshi Li, Qi’an Xu, and Yaotian Li</em></td>
<td></td>
</tr>
<tr>
<td>A Taxonomy of Network and Computer Attacks Based on Responses</td>
<td>26</td>
</tr>
<tr>
<td><em>Zheng Wu, Yang Ou, and Yujun Liu</em></td>
<td></td>
</tr>
</tbody>
</table>
A Hybrid Algorithm for Single-Depot Integrated Vehicle Routing Problem ........................................30
  Jiaqi Chen and Yuan Qu

Automatic Verification of Password-Based Authentication Protocols Using Smart Card ..........................................................34
  Bin Hu, Qi Xie, and Yang Li

Design of Off-Axis Two Reflecting System for Parallelism Calibration of Two Axes .................................................................40
  Jun Liu and Yuan Zheng

Wave Bands Choice of Land-Based Infrared Detector for Near Space Hypersonic Target ..........................................................45
  Shiyu Chao and Guixiang Li

Fault Diagnosis of Gearbox Based on Order Domain Averaging .................................................................49
  Zi-wei Dong, Guan-hai Xue, Wei Jiang, and Yan-yan Wei

A Novel Correction Algorithm Based on Polynomial and TPS Models .................................................................52
  Qinghe Su, Hong Cheng, Wenbang Sun, and Fengjing Zhang

MS5534B Pressure Sensor and Its Height Measurement Applications .................................................................56
  Lifen Chen, Bin Sun, and Xiaoming Chang

VSI X and R Control Charts with B&L Switching Rule .................................................................60
  Zhifang Guo and Longsheng Cheng

The Successive Analysis Method in Monte Carlo H Filter and Numerical Experiments .................................................................63
  Yueqi Han, Zhuhui Wu, Yunfeng Wang, Xiaoping Cheng, and Jin Qian

Speech-Based Five Features Extraction and Hardware Trade-Off Design for Mental Fatigue Monitoring ..........................................................68
  Zhihai Li, Wenshi Li, Zongbao Yao, and Yaotian Li

The Prediction of Surface Layer Ozone Concentration Using an Improved AR Model .................................................................72
  Wen-Yu Zhang, Ting-Ting Han, Zeng-Bao Zhao, Jin Zhang, and Yan-Feng Wang

Development of a Detection System for the Catenary Vibration Monitoring .................................................................76
  Jie Yu and Mingli Wu

Design and Simulation of Neuron PID Controller .................................................................80
  Hong Fang and Xiaohong Yu

Genetic Algorithm Based on Software Diagnosis Testing .................................................................83
  Shunkun Yang, Fuping Zeng, and Lin Yan

SaaS-Based Services Information Technology Acceptance Model .................................................................87
  Wei Gu and Ye Liu

Research of Ship Grounding Prediction Based on Fuzzy Theory .................................................................91
  Xin Yang, Xiaoming Liu, and Tingting Xu
Fire Distribution Optimization Based on Quantum Immune Genetic Algorithm ...........................................95
   Zhi Teng Wang, Hong Jun Zhang, Ying Huang, Kai Cheng, and Tian Yi Wu

Fuzzy Minimal Solution of Fuzzy Linear Matrix Equations ...........................................................................99
   Xiao-Bin Guo

Ship Trajectory Online Prediction Based on BP Neural Network Algorithm .................................................103
   Tingting Xu, Xiaoming Liu, and Xin Yang

The Improvement of Multi-criterion Minimum Spanning Tree Based on the GA ...........................................107
   Yin Lu

FMEA-Based Control Mechanism for Embedded Control Software ...............................................................110
   Hongzhe Shi, Xuejing Wang, Guoqi Li, and Hong Zhang

Risk Management Game Method of the Weapons Project Based on BP Neural Network ......................................................113
   Yongtao Yu

Particle Swarm Optimization Algorithm with Real Number Encoding for Vehicle Routing Problem .........................118
   Zongrong Qin and Yang Yi

Research and Design of DSP-Based Monitoring System of Power Batteries .....................................................122
   Luhang Yang, Jianzhi Zhang, and Wei Xu

Digitalized Approach in Air Pressure and Temperature Data Acquisition System ...........................................126
   Xinyong Wang, Wei Xu, and Luhang Yang

Particle Swarm Optimization for Multi-response Parameter Optimization Based on Desirability Functions .................130
   Pengfei Hu and Xiaosong Zhao

Real-Time Optimization and Application of the Embedded ARM-Linux Scheduling Policy .................................134
   Jianfeng He, Yufeng Li, Wei Zhang, Fang Fang, and Hongkun Xu

Fuzzy Decision Tree Algorithm for Customer Knowledge Management of PLM .............................................139
   Jichao Hu, Sufang An, and Jinshan Wang

ACO-Based Search Algorithm in Unstructured P2P Network .........................................................................143
   Dongming Tang, Xianliang Lu, and Lei Yang

E-Commerce Application Model Based on Cloud Computing ........................................................................147
   Tairan Liu

An Improved Multi-objective Genetic Algorithm Based on Granular Ranking and Distant Reproduction .................151
   Tai-shan Yan, Guan-qi Guo, and Wu Li

An Initiation Policy of Federate Migration Based on Load Monitor and Prediction for Analysis Simulation .................155
   Guang Li
DEA and EM Based Multi-objective Short-Term Hydrothermal Economic Scheduling ................................................................................................................................................159

Zhuangzhi Guo, Naishan Hang, and Jiekang Wu

Information Aggregation after SWOT Analysis - Regarding the Unknown Objectives Values .....................................................................................................................................163

Hao Zhang, Weixia Li, and Chengyi Zhang

The Metric System about Software Maintenance ........................................................................................................................167

Xiaowei Wang

A New Method for Sewing Machine Starting Based on BLDCM ....................................................................................................................170

Shouchun Zhang and Junbo Gao

The GEM Listed Company Earnings Quality Evaluation Based on System Fuzzy Optimization Model ..............................................................174

Jinsong Zhang and Qiuhong Lang

Research and Implementation of Fuzzy ISODATA Clustering Algorithm Based on Gene Expression Programming in Human Resource Management ..............................................................................................................178

Zhongdong Huang and Daihong Jiang

Highway Traffic Simulation Based on Cellular Automaton ........................................................................................................................181

Xianggang Hua, Dishi Xu, and Kaiwen Zhang

Evaluation of Talent Cultivation for Colleges and Universities Based on Principal Component Analysis and BP Neural Network ..............................................................................................................................................185

Wei Sun and Xiaolin Zhao

Analysis on Identification Technologies of Program Code Similarity ..................................................................................................................188

Gang Chen, Yuqing Zhang, and Xin Wang

The Application of Modified Genetic Algorithm in Logistics Distribution Routing Optimization ..............................................................................................................................................192

Daihong Jiang

Short Term Wind Speed Forecasting for Wind Farms Using an Improved Autoregression Method ....................................................................................................................................................195

Wen-Yu Zhang, Zeng-Bao Zhao, Ting-Ting Han, and Ling-Bin Kong

The Stochastic LQ Framework with Markov Modulation Parameters ..................................................................................................................199

Liai Cui, Xuanhui Liu, and Youfeng Chen

The Dynamic Retrieval Tree Menu Based on Dojo ..................................................................................................................................................202

Xiaoxiao Zhang, Yan Cao, and Xiangwei Mu

Data Collection System Based on SaaS Architecture ..................................................................................................................................................206

Li-wei Zhang

Hybrid Production Sequence Control Research Based on TOC&WLC ...........................................................................................................211

Renchun Lin, Ruying Pang, Yang Yang, and Jihong Song

Compensation Structure Decision-Making Based on Fuzzy Evaluation Model ......................................................................................................215

Jiahai Yuan, Yang Zhou, and Xue Yun
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Situation Analysis of the Network Public Opinion Based on the Variable-Weighted Choquet Fuzzy Integral</td>
<td>219</td>
</tr>
<tr>
<td>Yan Su, Yujun Liu, Wenfeng Xu, and Jun Wang</td>
<td></td>
</tr>
<tr>
<td>On a New Universal Algorithm for Coins Problem and Its Realization</td>
<td>226</td>
</tr>
<tr>
<td>Liang Dai, Zhuying Lin, and Shujia Fu</td>
<td></td>
</tr>
<tr>
<td>MPPT of Solar Energy Generating System with Fuzzy Control and Artificial Neural Network</td>
<td>230</td>
</tr>
<tr>
<td>Keya Huang, Wenshi Li, and Xiaoyang Huang</td>
<td></td>
</tr>
<tr>
<td>Modified Monte Carlo Method for Triple Integral</td>
<td>234</td>
</tr>
<tr>
<td>Ping Wang</td>
<td></td>
</tr>
<tr>
<td>Extended Rough Set Model Based on Prior Probability and Valued Tolerance Relation</td>
<td>237</td>
</tr>
<tr>
<td>Jinchao Zhao and Jin Xu</td>
<td></td>
</tr>
<tr>
<td>The Application of Cloud Computing in Military Intelligence Fusion</td>
<td>241</td>
</tr>
<tr>
<td>Xi Cheng and Xuejun Liao</td>
<td></td>
</tr>
<tr>
<td>Expert Systems for Fault Diagnosis Integrating Neural Network and Fuzzy Inference</td>
<td>245</td>
</tr>
<tr>
<td>Guang Hong, Xin Chen, Xuedong Xue, and Shuai Zhang</td>
<td></td>
</tr>
<tr>
<td>Network Effects and the Stability of Loop Networks</td>
<td>249</td>
</tr>
<tr>
<td>Zhang Fan and Liao Xiu Wu</td>
<td></td>
</tr>
<tr>
<td>An Optimal Model and Its Algorithm for Multi-echelon MSW Recycling Network Design</td>
<td>254</td>
</tr>
<tr>
<td>Aimin Deng, Lang Mao, Feng Tian, and Jia Cai</td>
<td></td>
</tr>
<tr>
<td>Ultrasonic Signal Multiplex Technology for Dynamic Wheelset Defect Detection System</td>
<td>260</td>
</tr>
<tr>
<td>Chaoyong Peng, Xiaorong Gao, Li Wang, Yu Zhang, Jianping Peng, and Kai Yang</td>
<td></td>
</tr>
<tr>
<td>Fault Diagnosis of Missile Test Launching-Control System</td>
<td>263</td>
</tr>
<tr>
<td>Bing Xu, Dongyu Zhang, Chengpeng Jiang, and Xin Chen</td>
<td></td>
</tr>
<tr>
<td>A Robust Weighted Kernel Principal Component Analysis Algorithm</td>
<td>267</td>
</tr>
<tr>
<td>Xifa Duan, Zheng Tian, Peiyan Qi, Xiangzeng Liu, Xifa Duan, and Peiyan Qi</td>
<td></td>
</tr>
<tr>
<td>The Phonetic Information Redundancy in Mandarin: A Support for Information Optimizing Model of Language</td>
<td>271</td>
</tr>
<tr>
<td>Qingyuan Tian</td>
<td></td>
</tr>
<tr>
<td>A Corpus Building Method on Forensic Identification of Dialects (FIDS)</td>
<td>275</td>
</tr>
<tr>
<td>Jing-Jing Xia and Meng-Qiang Liu</td>
<td></td>
</tr>
<tr>
<td>Aircraft Landing Gear Simulation Using Multidomain Modeling Technology</td>
<td>279</td>
</tr>
<tr>
<td>Ming Li, Xiang-Yu Hao, Xue-Feng Han, and Hong-Guang Jia</td>
<td></td>
</tr>
</tbody>
</table>
Applying Artificial Neural Network Technique and Theory to Study
the Hairiness of Polyester/Cotton Blended Yarn in Warping Process ..................................................282
Zhao Bo

Neural Network for Prediction of Hairiness of Ring Spun Cotton Yarn .....................................................286
Zhao Bo

Fire Assignment Optimization of Network-Centric Artillery Combat Based
on Genetic Algorithm ...............................................................................................................................290
Xiaoquan Li, Haiyang Zhan, Kai You, and Yi Cheng

Function Fitting about Internal Stress of Ceramic Paste Based on BP-NN
and SVM ...................................................................................................................................................294
Yan-zi Zhao and Wei Tang

Optimal Portfolios for DC Pension under the Quadratic Utility Function ..................................................297
Zhang Chubing and Hou Ru-jing

A Solution to a Species of Unlimited Equipment Support Problem by ACO ................................................301
Xiang-yang Deng, Jian Gong, Jing-bo Zhou, Le Peng, and Huai-yi Hou

Spectral Conjugate Gradient Methods with the Generalized Quasi-Newton
Equation ................................................................................................................................................304
Mingjuan Ma, Yufeng Shang, Xin Liang, and Zhonglin Suo

A Novel PSO Algorithm Based on the Spatial Distribution of Fitness ..........................................................308
Qinghe Su, Hong Cheng, Wenbang Sun, and Xinwei Bai

Solving MRCPS by Constraint Programming ...........................................................................................312
Yan Li, Hehua Li, and Tao Yang

Short-Term Traffic Flow Combined Forecasting Based on Nonparametric
Regression ................................................................................................................................................316
Zhenjin Huang, Hao Ouyang, and Yiming Tian

A Registration Algorithm Based on Feature Point ......................................................................................320
Jianzhe Ma and Lipeng Li

A Web-Based Automatic Warning System for Citrus Bacteria Canker Disease
Using AHP Methodology ..........................................................................................................................324
Daoying Xiong and Jianbang Chen

Research and Comparison for Acceleration and Deceleration Control
Algorithm in NC Systems ...........................................................................................................................328
Zhongyue Xiao and Jugen Nie

Evaluating Scalability of Emerging Multithreaded Applications on Commodity
Multicore Server ......................................................................................................................................332
Xuhao Chen, Jiwen Li, Zhong Zheng, Li Shen, and Zhiying Wang

On the Application of BGP Routing Views ..............................................................................................336
Song Xing, Adam Huarng, Xiannong Meng, and Albert Bader
An Efficient Context-Sensitive Service Composition Framework for Precise Controlling in Cyber-Physical Systems ................................................................. 340
   Tao Wang, Lianglun Cheng, and Ke Zhang

Practical Research on Comprehensive Project Based on CDIO Education Mode .................................................................................................................. 344
   Yinghua Wang and Rijun Zhang

The Security Assurance Design of the Ground Test Equipment for Space Payload ........................................................................................................ 347
   Yu Zhang and Yan-yan Liu

Summary of Biological Information Mining ................................................................................................................................. 351
   Zhou Hai Yan, Qi Hui, and Zhang You Dong

Study on the Computer-Aided Tool for Generation of Test Sequence for CTCS-3 Train Control System ........................................................................ 355
   Yong Zhang, Shu Wang, Xiaokun Zhang, Shuo Sha, and Gaozhen Xu

The Design Innovation of Chinese Electronic Game Based on Emotional Experience ........................................................................................................ 359
   Qin Yang and Chen Jiao

Introduction Strategies of Internet Traffic Optimization Technology .................................................................................................................. 363
   Zhiwei Shen and Bin Zhang

Topic Feature Extraction of Chinese News Title ............................................................................................................................................ 367
   Qiao Sun, Fu Xu, and Chen Zhibo

Class Tag Clustering Algorithm of Clustering Search Engine ..................................................................................................................... 371
   Hong Zhou, Dong-hua Zhu, and Bing-wu Liu

Learning to Recognize the Art Style of Paintings Using Multi-cues ............................................................................................................... 375
   Bing Yang and Duanqing Xu

Organization Domain Trust Evaluation Model in Federa Environment Based on Subjective Logic .................................................................................................. 380
   Zhengyu Hu, Lianzhong Liu, and Chen Wang

A Micro-grid Control System Based on EtherCAT ........................................................................................................................................ 385
   Shi-tian Yan, Lei Zhang, Zhi-xin Chen, Jia Wang, and Bingbing Wang

The Conditional Connectivity of Möbius Cubes under the 1-Safe Condition .................................................................................................. 389
   Zongyun Zhang, Jing Zhang, and Shizhong Liu

A Re-sampling Method for Class Imbalance Learning with Credit Data .................................................................................................. 393
   Li Zhang and WenXian Wang

Design and Implementation of the Tourism Information System Based on Windows Phone .................................................................................................................. 398
   Pei Li and Chun-hua Zhu

Author Index - Volume 1 ................................................................................................................................................................................. 401
2011 International Conference on Information Technology, Computer Engineering and Management Sciences

(ICM 2011)

Nanjing, Jiangsu, China
24 – 25 September 2011

Volume 2
Pages 1-405
Welcome Message - Volume 2 .................................................................xii
Organizing Committee - Volume 2 ............................................................xiii
Reviewers - Volume 2 ..............................................................................xiv

Volume 2

FPGA-Based Communication Module in Numerical Control System
with Software Hardening Technology .........................................................3
  Jianmin Zuo, Hao Zhu, Xinghua Zhu, and Hua Yan

Design of Weapons Training Simulator of the Audio Transmission System
Based on FPGA Platform ............................................................................7
  Dong Yang, Yang Aibing, and Li Zhuolun

A High-Speed FPGA-Based Lossless Data Compression Design for the X-ray
Spectrometer Solar Energy Spectra ............................................................11
  RuiMin Ma and HuanYu Wang

EPC Events in Logistics Process and the Design of Anti-counterfeiting
Patterns ......................................................................................................15
  Ren Zheng and Jin Qi

Design of Group Robots System Based on Wireless Communication ..................19
  Guodong Cai and Yutaka Harada

Simple Knowledge Reduction Approach Based on Direct Definitions
and Discernibility Matrix ..........................................................................23
  Bailin Liu, Xi Chen, and Huiyun Zou
The Application Research of SaaS Platform in the Oil Industry .................................................................26
   Lei Sun and Jun Zhang

Evolution Model of Unexpected Emergencies' Spreading Network Based
on Subject Selecting ........................................................................................................................................30
   Xu Lu, Zhuang Ya-ming, and Cheng Le

Component Warehouse Driven by Workflow Based on Building Block ..................................................34
   Cheng Zhang, Huiming Tang, Yiping Wu, Liangqing Wang, and Cheng Zhang

A New Scheme for IM Based on XMPP/SIMPLE .......................................................................................38
   Yizhi Zhang and Liang Hongxing

Wiki’s Aplication in the Educational Technology Training for University
Teachers .....................................................................................................................................................42
   Miao Wei, Zhongmei Zheng, and Hui Ma

The Smart Shed Management System Based on RFID .............................................................................46
   Xiao-min Li, Jian-ping Wang, and Xiao-ling Li

Research on Mechanism and Operation Model of Logistics Finance .....................................................50
   Peng Du and Shangkun Liang

Use Cases and Feedback in Functional Requirements Analysis ...............................................................54
   Jiandong Xu, Tong Li, Zhongwen Xie, and Tilei Gao

A New Method to Calculate Weights of Attributes in Spectral Clustering
Algorithms ..................................................................................................................................................58
   Zhendong Li and Wei Sun

An Expanding Ring Prediction and Location Aided AODV Routing Algorithm .......................................61
   Chunling Cheng, Jingbo Hao, and Dengyin Zhang

Categorical Document Frequency Based Feature Selection for Text
Categorization ..............................................................................................................................................65
   Zhilong Zhen, Haijuan Wang, Lixin Han, and Zhan Shi

Network Security Analysis Based on Reputation Evaluation .........................................................................69
   Lili Qi

Performance Analysis of Reception for OFDM Communication Systems .................................................72
   Xiaojuan Chen, Minglei Zhang, and Xue Han

The Design and Simulation of Synchronization System Based on the QPSK
High-Speed Demodulator .........................................................................................................................76
   Yu-lan Chen, Ling Zhu, and Han-yan Huang

Closeness Centrality on BBS Reply Network .........................................................................................80
   Ke Zhang, Hui Li, Lijuan Qin, and Min Wu

The Order Parameter and the Servo Process of Safety Management System
of Coal Mine Construction Project ........................................................................................................83
   Jingyang Zhang and Songjiang Wang
The Simulation of the Detecting Ability of Space-Based Early-Warning System with the Effect of Interference ..........................................................88
Wen-ping Lv and Wei-min Li

An Evolutionary Model of Reply Networks on Bulletin Board System ..................92
Min Wu, Hui Li, Ke Zhang, and Lijuan Qin

Centrality Analysis of BBS Reply Networks .........................................................96
Lijuan Qin, Hui Li, Ke Zhang, and Min Wu

The Best Value Based Bidder Selection Research in Construction Bidding ............100
YaQiong Ren

XML Encoding Scheme of Supporting Updating Data Completely ......................103
Xian-feng Liu, Zhou Zhou, and Ping Liu

Xiangai Liu, Yanli Feng, Qingcong Lv, and Tongtong Zhao

B2B E-Commerce Adoption in Developing Countries: A Chinese Study ................112
Wenjie Zhou

Research and Implementation of DNS-White-List Tool Based on C#.NET ..........116
Xiaochen Chen, Xi Yu, and Fangqin Xu

Recovering and Protecting against DNS Cache Poisoning Attacks ....................120
Xi Yu, Xiaochen Chen, and Fangqin Xu

A B-Tree Algorithm for Partitioned Index Based on CIDR List in High-End Router .....................................................................................124
HuiJun Du, WenGuo Wei, and Jian Yang

Subjectivity Teaching of College Foreign Languages Based on Multimedia Technology ..................................................................................129
Pan Heng

A Novel Distributed Dynamic Load Balancing Mechanism ..................................133
Shan Jin and Bo Ren

Chunmei Ren and Daihong Jiang

Discovering Hidden Leaders through Email Log Based on Chance Discovery ........141
Wei Sun and Junbo Gao

A Policy of Reducing Power Consumption for Bluetooth Devices ....................145
Jun Tang

A Radio Interference Detection Approach Based on TIFROM .............................149
Jing-bo Zhou, Deng-ke Zhang, Hao Hong, and Hong-liang Wang

Intrusion Detection Algorithm Based on Semi-supervised Learning ..................153
Yongzhong Li, Zhengjie Li, and Rushang Wang
Anomaly Intrusion Detection Method Based on K-Means Clustering Algorithm
with Particle Swarm Optimization .................................................................157
   Zhengjie Li, Yongzhong Li, and Lei Xu

A New Load-Balancing Algorithm for Multihop Wireless Networks .........................162
   Jiangli Zhang and Yongzhong Li

The Application Research of Characteristic Code Techniques in Attack and Defense .................................................................167
   Yingchun Zhang

A Process Model of Software Evolution Requirement Based on Feedback .........................171
   Tilei Gao, Tong Li, Zhongwen Xie, Jiandong Xu, and Ye Qian

Performance Evaluation of R&D Network with ANP&EBSC ........................................175
   Guoxiang Ruan

Security Analysis of a Proxy Blind Signature and Its Improved Scheme .........................179
   Rufen Huang and Qiang Nong

Improved Otsu Target Tracking Algorithm Based on Iteration .....................................183
   Ming Gao and Yao Wang

An Energy-Aware Routing Strategy Based on Dynamic Priority Factor in Ad Hoc Networks .................................................................189
   Nini Wei and Yi Song

Localization Algorithm for Wireless Sensor Network Based on Energy Threshold .................................193
   Guang-xue Yang and Biao Jing

Time to Digital Based on Reconfiguration Technology ................................................198
   Zhenyu Li, Wancai Li, and Jianyong Chen

MAC Protocol Wireless Ad Hoc Network for Long Delay Channel .............................201
   Hui Zhou, Bing Yan, and Nan Li

Design of Internet-Based Remote Monitorial System of Long-Distance Pipeline ..........206
   Hui Li

Knowledge Sharing within Innovation Network Members with Netlogo Simulation Platform ........................................................................210
   Guoxiang Ruan and Pingnan Ruan

Cooperative Agent-Based QoS Framework for Heterogeneous Networks .....................214
   Feng Ding, Shuai Zhang, Heng Wang, Huang Songhua, and Jun Tao

A Framework of Heterogeneous Real-Time Video Surveillance Network Management System ........................................................................218
   Jinyi Wang and Baoping Yan

Rapid Adaptive Beamforming Algorithm for Multi-user Cognitive Radio Systems ..........222
   Fayong Zhao
Random Simulation Method for the PERT Network Based on the CrystalBall and Excel Environment .......................................................... 226
   Hongxiang Ouyang and Xinjuan Zhang
The Controlled-Worm System Designwork ................................................. 230
   Dengyin Zhang, Dacheng Li, and Ye Wang
A Handoff Control Algorithm Based on Services-Priority and Channel Reservation ................................................................. 235
   Deng-yin Zhang, Lei Cui, and Zhen-yan Tong
The Application of Internet of Things in Teaching Management System ................................................................. 239
   Ai-qin Qi and Yong-jun Shen
The Counterbalance Mechanism of Blockholders and the Effectiveness of Internal Control: A Case Study Based on the Listed Liquor Companies in China ........................................................................... 242
   Yingqi Li and Junli Yu
The Multi-level Self-Adaptive Space Communication Security Protocol ................................................................. 246
   Wen-guo Xu, Tian-yu Wang, and Lei Li
The Application of the Shortest Path Algorithm in the Evacuation System ................................................................. 250
   Tian-yu Wang, Rui Huang, Lei Li, Wen-guo Xu, and Ju-gen Nie
Application of Sinusoidal Pulse Width Modulation Algorithm in the Grid-Connected Photovoltaic System ........................................................................... 254
   Lei Li, Tian-yu Wang, and Wen-guo Xu
Application of PLC in Hospital Emergency Calling Device ........................................................................... 258
   Wentong Wu, Jugen Nie, and Pei Pei
Operational Mechanism of Competitive Procurement of General Equipment Maintenance Material ................................................................. 261
   Xiao Chen, Wo-ye Liu, and Fei Han
An Adaptive Congestion Control Strategy for Wireless ........................................................................... 265
   Runze Wan, Xingyan Zhang, Jilin Zhou, and Jing Liu
An Improved Identity-Based Group Signature Scheme ........................................................................... 269
   Li Li, De-gong Duan, and Ying-liang Ding
Reducing Multi-user Interference through Rotation Matrix ........................................................................... 272
   Qingyu Ci
An Algorithm for Recognizing Runway Based on Improved Radon Transformation ................................................................. 275
   Yinwen Dong, Bingcheng Yuan, Hangyu Wang, Zhaoming Shi, and Yuntao Liu
A Method of Segmenting Texture of Targets in Remote Sensing Images Based on Granular Computing ........................................................................... 280
   Yi Liang and Zhaojun Mao
Dynamic Simulation of Permanent Magnet Synchronous Motor Fed by Voltage Source Inverter ..........................................................284

Yingjuan Lu, Wei Xie, Lu Qu, and Yixu Zhang

A Discrete Curve Comparison Algorithm on Z Curve for Nucleic Acid Sequence Alignment ..........................................................288

Bo Xue, Yong'an Xu, Maohua Ding, and Minjie Fan

Transmission System Design of FSAE Racing Car Based on Computer Technology ..........................................................292

Huijuan He, Danlei Zhou, and Shiqing Peng

An Effective Method for Extracting Capsule by Color Image Processing ..........................................................295

Haifei Hou, Xulongqi Wang, Dongxian Zhang, and Haijun Zhang

Quality Control for High-Speed Digital Multi-layer Printed Circuit Board ..........................................................299

Ningbiao Wu, Wenlu Chen, Yan Jia, and Yonghua Zhang

Toward a Synthetic Evaluation of the Attention Distribution Ability of Drivers ..........................................................305

Yu Tian, Shanguang Chen, and Chunhui Wang

Analysis and Implement of ECG Front-End Signal Processing Circuit ..........................................................309

Yongjun Li, Xiaorong Xu, Yu Liu, and Yafang Tian

A Fractal Multi-wavelets Filter Design and Application ..........................................................313

Yongjun Li and Xiaorong Xu

Linear Regression Method for Binary Life Data from Weibull Distribution ..........................................................317

Liang Ao and Qihua Wang

Image Recognition Technology in Intelligent Cotton Harvesting Machine ..........................................................320

Mulan Wang, Kun Liu, Xiaoxia Li, and Rong Jiang

Behavioural Approaches to Safety Management in Underground Mines ..........................................................324

Zhangliang Chen, Liqiang Ma, and Yufeng Sun

Numerical Simulation Study on Law of Steam Flooding Effect under the Conditions of Different Oil Viscosity Values in the Low Permeability Oilfield ..........................................................328

Mingguo Wei

A New Intelligent Tire Pressure Monitoring System ..........................................................332

Zhiping Jiang, Huachun Liu, and Qingguang Dai

Fast Calculation of EM Scattering from Dielectric Target above Dielectric Gauss Rough Surface Based on Cross Coupling Iterative Approach ..........................................................336

Tian Bo and Tong Chuang-ming

Cost Estimating and Electric Vehicles Running ..........................................................340

Nan Kuang, Yuan-Biao Zhang, Ya Yu, and Dalu Xie

A Vehicle License Character Segmentation Algorithm Based on Local Chan-Vese Model ..........................................................344

Chaojun Xu and Shangbing Gao
The Application of Fuzzy Two-Dimensional Principal Component Analysis (F2DPCA) on Face Recognition .................................................................349
  Shaozhang Xiao and Shangbing Gao

The Cross-Spectrum Approach for Underwater Multi-target Direction Estimation .................................................................354
  Yanni Gou and Yingmin Wang

Classified Segmentation of Online Complex Freehand Sketching .................................................................358
  Guanfeng Wang and Shuxia Wang

Moving Target Classification Technique in Video Sequence .................................................................362
  Xiaojing Wang, Da Yuan, and Daokai Li

A Multiproduct Duopolistic Pricing Model in Network Convergence .................................................................366
  Yong Xu and Min Xu

A Design of Virtual Machining Simulation System for Magnesium Alloy Extrusion Machine .................................................................370
  Guiping Lu, Litao Wang, Jinfeng Bao, and Yan Lou

Multivariate Time Series Analysis in Corporate Decision-Making Application .................................................................374
  Yatao Li and Fen Ying

A New Automatic Matching Algorithm of Aerial Remote Sensing Images .................................................................377
  Zhiqiang Wang, Hong Cheng, Wenbang Sun, Guang Yu, and Di Wu

An Improvement of PSWF Pulse Generator Based on Difference Quantitation .................................................................381
  Chuanhui Liu, Hongxing Wang, Lei Zhang, and Xiguo Liu

A New Hyperchaotic Liu System .................................................................385
  Yezhan Zeng

A Simple Way to Realize the Accurate Detection of Cells’ Edge .................................................................388
  Jiajia Ma, Xiaona Lv, and Shoujuan Yu

Underdetermined Blind Separation for Speech Signal Based on Two-Step Sparse Component Analysis .................................................................392
  Wang Yu-jing and Feng-qin Yu

Numerical Simulation and Experimental Test on Muzzle Brake Efficiency .................................................................396
  Kun Jiang and Hao Wang

A Channel Estimation Algorithm Based on Decision-Directed Algorithm .................................................................400
  Zengju Wei and Ye Zhang

Author Index - Volume 2 .................................................................403
Welcome Message - Volume 3 ..................................................................................................................xii
Organizing Committee - Volume 3 ...........................................................................................................xiii
Reviewers - Volume 3 ...............................................................................................................................xiv

Volume 3

Measuring Reflection Coefficient of Underwater Acoustic Materials with the Vector Hydrophone .................................................................................................................................3
  Xudong He and Shengguo Shi

A New Method for the Morph of Planar Polygons Based on Shape Feature ...............................................7
  Chun-Qiong Gong

Application of the MITK Based Intelligent Volume Rendering by Ray-Leaping Method in Medical Image Visualization ......................................................................................................11
  Zhen Qu and Xinqiang Qin

Remote Sensing Image Enhancement Method Based on Multi-scale Retinex ..................................................15
  Wu Henan, Yang Guang, Xu Zhonglin, Li Dejun, and Yuan Yuwei

Randomization of Łukasiewicz 3-Valued Propositional Logic System ..........................................................19
  Xiaojing Hui

Probability-Weighted D-Optimal Designs Considering the Distribution of the Factors ..................................................22
  Han-yan Huang, Lei Wang, Yun-Tao Chen, and Yu-Lan Chen

A Non-stationary Covariance-Based Kriging Method with Adaptation to Irregularities in the Response Behavior ..................................................................................................................26
  Han-yan Huang, Lei Wang, Yun-tao Chen, and Lei Han
Optimum Design of Main Circuit for High-Power HID Lamps Electronic Ballast ........................................92
Jian Zhang, Zhongni Zhu, Qingguo Song, and Rong Wang

Simulation of Control Strategy for Automotive Semi-active MRF Dampers ...........................................96
Zhi-xin Yu, Zhao Chen, and Jian-hua Li

The Air Traffic Congestion Analysis for Landing .......................................................................................100
Wenzhi Zhao, Yanhong Wang, and Zhi Guo

An Improved Decoding Algorithm of Non binary LDPC Code .................................................................104
Haili Hong and Zhuo Sun

Wavelet Threshold Denoising of Thermal Image from Transmission Joints ............................................108
Chao Qi, Ziyu Wang, Jinlong Han, and Sai Qi

Abnormal Phenomenon of NCEP and the Celestial Bodies Tidal Force before the Wen’an Earthquake .................................................................................................................112
Weiyu Ma, Bo Zhou, Cong Chen, and Guocheng Zhou

Analysis of Fault Signal in Aircraft Power System Based on Hilbert-Huang Transform .........................115
Wei Fu and Yan Zhu

Fuzzy Enhancement Based on Transition Zone Edge Detection Algorithm for SAR Image ........................................................119
Nan Zheng, Haiyu Li, Haifeng Tan, and Tianwen Luo

Research on the Ways of Customer Maintenance in Transportation Enterprises ........................................123
Ye Sun

Image Processing in Dynamic Reconfigurable Platform ..............................................................................127
Wancai Li, Jianyong Chen, and Zhenyu Li

Simulation of Soft Start-Up of Asynchronous Machines with Pump-Control Function Based on Thyristor ..........................................................................................................................131
Zhen bao Jiang, Tingjian Zhong, and Yin hua Rao

An Adaptive Identification System Based on Chinese Handwriting ........................................................136
Yongjian Zhao and Ce Shi

The Method to Construct the Three-Dimensional Model Based on OpenGL .............................................140
Leisheng Zhang, Manqing Chen, Yujun Liu, and Yuanshou Li

Research and Development of Test Platform for 3D Real-Time Rendering Algorithm ..................................144
Ke-ping Tang

Sound Effect of Physical Engine in Game Design .......................................................................................148
Ting Wei and Hao Zheng

A New Modulation Implementation Method of the CPM ...........................................................................152
Xiangyuan Bu and Wei Meng
Finite Element Solution of the Interaction Factors between Surface Cracks under Tensile Load .......................................................... 156
  Jian-gang Xu

Real-Time Remote Monitoring and Warning System in General Agriculture Environment .............................................................. 160
  Zhuanwei Wang, Chunjiang Zhao, Haihui Zhang, and Hongpan Fan

Evaluation of in vivo Microcirculation via Orthogonal Polarization Multi-spectral Imaging and Multi-spectral Fusion .................................. 164
  Qian Xu, Junfeng Lei, and Libo Zeng

Lips Detection Based on Skin Model and Adaboost Algorithm in the Human-Wheelchair Interaction .................................................. 169
  Zhang-fang Hu and Yu-jiao Ding

Empirical Analysis on the Relationship between China’s Carbon Dioxide Emissions and Economic Growth Based on ECM ..................... 173
  Fang Huang and Yuanqing Lu

Transfer Ensemble Model for Customer Churn Prediction with Imbalanced Class Distribution .............................................................. 177
  Yuan Wang and Jin Xiao

Have the Career Attitudes Changed to Protean Ones? Evidence from Managers in One Company in China Central Regions .................. 182
  Xiehong Fu and Ning Wu

Chinese Firms’ Internationalization and Performance on the Basis of Learning Capability ................................................................. 186
  Min Jiang and Min Xu

An Approach to Battlefield Data Management of Targets and Environment ......................................................................................... 190
  Yi Liang and Jijuan Xing

Establishing Financial Crisis Early Warning Models for Listed Companies ......................................................................................... 195
  Dai Wei

An Empirical Study on Application of Wiki-Based Collaborative Lesson-Preparing ........................................................................ 199
  Yingjie Ren and Chaohua Gong

Software Industry Competitive Strategy and Innovation: A Comparison among Typical Nations ......................................................... 203
  Yuhong Li

Arrangement of the Life Cycle Cost Influence Factors Based on System Dynamics ............................................................................. 207
  Guowei Chen, Jiashan Jin, and Junbao Geng

The Application of Task-Driven Teaching Method .......................................................................................................................... 212
  Rijun Zhang and Yinghua Wang
Software Interface Failure Modes and Effect Analysis Based on UML ..................................................215
  Chenguang Hou and Qihua Wang

The Principal-Agent Analysis of China Coal Mine Safety Regulations ..................................................219
  Bin Wang and Ziyong Cheng

Impact of Cross-Border Mergers and Acquisitions to Human Resource Management under Corporate Governance - Based on Cross-Border Mergers and Acquisitions in China Enterprises ..............................................................223
  Ziyong Cheng and Bin Wang

Reflection on E-Government Development in China .................................................................227
  Yanhong Yang, Cuiyou Yao, and Yanhong Yang

XML and Behavior Modeling-Based Information Sharing and Exchange Method in Human Resource Outsourcing Service Industry ..................................................................................................................230
  Yu Gang, Du Juan, and Xiong Jing

Computer Basic Teaching in Xinjiang Vocational College ........................................................................236
  Gongyuan Yang and Li Zhao

Application of Statistics in the Process of Teaching Study .........................................................................240
  Jing Zhang, Xinchang Gou, and Hongjun Fan

The Impact of Macro Economic Uncertainty on Investments .....................................................................244
  Qingchun Lu and Xiaoguang Lu

AHP-Based Home Appliance Chain Logistics Distribution Model ..............................................................248
  Xue ShuHua

Financial and Tax Incentive Policy for Promoting the Self-Renovation Capability of Medicine Industry .................................................................252
  Xianjie Tang and Xinyu Li

A Building Method of XML Knowledge Base Using Domain Ontology .....................................................256
  Huayu Li and Xiaoming Zhang

  Bianwen Wang, Xuemei Han, and Shaoyu Zheng

Market Confidence and Reputation Feedback System in Online Transactions - Based on Multi-agent Computational Experiment .................................................................263
  Kui Lui, Li Jiang, and Jingqiu Shen

Knowledge Transferred across Projects and Its Characteristics in an IT Service Enterprise .................................................................267
  Dali Zhao and Meiyun Zuo

A Two Stage Choosing Model for Equipments Maintenance Outsourcing Pattern of Mechanical Manufacturing Enterprise ...........................................................................................................271
  Pengju Li, Zhonghua Cheng, Xinyue Li, and Pengfei Li

High-Interaction Honeypot System for SQL Injection Analysis ......................................................................274
  Jiao Ma, Kun Chai, Yao Xiao, Tian Lan, and Wei Huang
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanding Trade in Services: Policy Recommendations for Shandong Province</td>
<td>278</td>
</tr>
<tr>
<td>Qinghua Zhu</td>
<td></td>
</tr>
<tr>
<td>Semantic Interaction Model of Knowledge Transfer Process in Virtual Communities of Practice</td>
<td>282</td>
</tr>
<tr>
<td>Yang Bai and Guishi Deng</td>
<td></td>
</tr>
<tr>
<td>Motivation to Mergers and Acquisitions of High Technology Firms: Grounded in Integration Theory of Resources and Capabilities</td>
<td>286</td>
</tr>
<tr>
<td>Runsheng Fang, Dongshu Fang, Pengfei Guo, Yaofeng Li, and Zhenhua Lu</td>
<td></td>
</tr>
<tr>
<td>M-Government Use: Technology, Context and Environment Determinants</td>
<td>290</td>
</tr>
<tr>
<td>Changlin Wang, Zhenhua Lu, Yuqiang Feng, and Runsheng Fang</td>
<td></td>
</tr>
<tr>
<td>Factors that Influence a Buyer's Decision Process of Shopping Online: The Effects of Tradition and Virtual Community</td>
<td>294</td>
</tr>
<tr>
<td>Yao Zhang and Yu-qiang Feng</td>
<td></td>
</tr>
<tr>
<td>E-Government Satisfaction: A Conceptual Model</td>
<td>298</td>
</tr>
<tr>
<td>Zhenhua Lu, Yuqiang Feng, Changlin Wang, and Runsheng Fang</td>
<td></td>
</tr>
<tr>
<td>Strength of Ties, Firm Age and Innovation: An NKC-Model Simulation</td>
<td>301</td>
</tr>
<tr>
<td>Ying Liao and Jianzu Wu</td>
<td></td>
</tr>
<tr>
<td>The Innovation Spillover Probability Model of Inter-industries: Empirical Demonstration Based Paper Growth Rate Analysis</td>
<td>305</td>
</tr>
<tr>
<td>Zibiao Li, Yingxin Yu, and Qi Liu</td>
<td></td>
</tr>
<tr>
<td>Calculation of the Cycle and Working Hours for Complex Projects with Iterations</td>
<td>309</td>
</tr>
<tr>
<td>Guorong Chai, Zhikun Du, Guoxing Zhang, and Yana Su</td>
<td></td>
</tr>
<tr>
<td>Motivation Effect of Total Rewards on University Seminar Members</td>
<td>313</td>
</tr>
<tr>
<td>Shujun Tang, Liuzhan Jia, and Jingjing Shui</td>
<td></td>
</tr>
<tr>
<td>An Optimization Method of Workflow-Based Web Service Composition Model</td>
<td>317</td>
</tr>
<tr>
<td>Tongtong Zhao, Yanli Feng, and Xiangai Liu</td>
<td></td>
</tr>
<tr>
<td>Ethical Issues in Information Systems</td>
<td>321</td>
</tr>
<tr>
<td>Jian Zhang</td>
<td></td>
</tr>
<tr>
<td>An Ontology-Based Data Integration System with Dynamic Concept Mapping and Plug-In Management</td>
<td>324</td>
</tr>
<tr>
<td>Fangyuan Guo and Yu Fang</td>
<td></td>
</tr>
<tr>
<td>Risk-Oriented Continuous Supply Strategy in a Manufacturing Supply Chain</td>
<td>329</td>
</tr>
<tr>
<td>Wenpeng Wang and Xinning Yu</td>
<td></td>
</tr>
<tr>
<td>Management Strategy Innovation of Electronic Commerce Enterprises</td>
<td>332</td>
</tr>
<tr>
<td>Shuangqin Liu and David Huang</td>
<td></td>
</tr>
<tr>
<td>The Design of Personal Knowledge Management System Based on Web2.0</td>
<td>336</td>
</tr>
<tr>
<td>Hui Ma, Feng Wang, and Fei Ye</td>
<td></td>
</tr>
</tbody>
</table>
The Local Application of Competency Model: The Identification Competency Analysis of Certain College Students Major in Communication ..........................................................340
   Jingshan Li and Hong Sun

The Analytic Hierarchy Process Method for Integrate Distribution Issue of Agricultural Products Logistics ..........................................................342
   Wenjie Bao and Zhongyuan Wu

Remanufacturing Service Supply Chain Competitiveness Evaluation Based on the Equivalent Quality ..........................................................345
   Jing Zhang and Gong-qian Liang

Designing of Collection and Delivery Point for E-Commerce Logistics ..........................................................349
   Junjie Xu, Liang Hong, and Yiliang Li

Trend and Strategy: Energy Consumption and Carbon Emissions in Beijing ..........................................................353
   Yuanqing Lu and Yongle Zhao

Future Applications of Virtual Reality Technology Outlook ..........................................................356
   Wang Ziqiang, Li Yuanzhou, Chen Manqing, Zhang Zhe, and Yang Xiang

Construction of Equipment Knowledge Management System ..........................................................359
   Xin Shi, Shusen Zhang, and Yuan Li

Blog for Teacher Implicit Knowledge Sharing Model Construction ..........................................................363
   Yaping Wang

A Clustering Approach to Distinguish the Change-Point ..........................................................368
   Bin Nie and Jing Ding

Influencing Factors of Equity Financing Preference: Empirical Evidence on China’s Listed Companies ..........................................................372
   Chunhua Chen

Safety Management of Work Vessel in Deep Water Based on Fault Tree Analysis ..........................................................377
   Jinbiao Chen, Tingting Chen, Shijun Ying, and Chaojian Shi

Job Perceptions of Hotel and Tourism Employees: A Comparative Study ..........................................................381
   Haiyan Kong

Technology Incubators and the Entrepreneurial Behavior of New Technology-Based Firms ..........................................................385
   Jie Chen

Design and Implementation of Customer Relationship Management System Based on Structured Object-Oriented Methodology ..........................................................390
   Cailiang Shen, Bing Han, Qingbiao Zhou, and Wenfei Song

Operational Skill Training Needs Analysis for Manufacturing Industry ..........................................................394
   Zheng Cheng, Zhanwen Niu, and Pengfei Wei

Author Index - Volume 3 ..................................................................................................................................................399
2011 International Conference on Information Technology, Computer Engineering and Management Sciences

(ICM 2011)

Nanjing, Jiangsu, China
24 – 25 September 2011

Volume 4
Pages 1-373
2011 International Conference of Information Technology, Computer Engineering and Management Sciences

ICM 2011

Table of Contents

Volume - 4

Welcome Message - Volume 4.................................................................................................................................................xii
Organizing Committee - Volume 4........................................................................................................................................xiii
Reviewers - Volume 4...............................................................................................................................................................xiv

Volume 4

Thickness of Tail Index of China Stock Markets ..................................................................................................................3
Jin Ru Long, Ping Li, and Yong Zeng

Review on Hybrid Flow Shop Scheduling .........................................................................................................................7
Wenpeng Wang

Model and Optimal Bidding Strategies in Multi-attribute English Auction ..........................................................................11
Ya-hui Sun and Yu-qiang Feng

Design and Implementation of Power Customer Value Evaluation System ........................................................................16
Songzheng Zhao, Xiaoyun Cheng, and Weiyang Jiang

Analyze about Network Businessmen Development Approaches under New Business Civilization ........................................21
Liyan Wang

Training Needs Analysis of Talent Intermediary Organization Based on Goldstein Model - A Case Study of a Talent Intermediary Organization ..................................................................................25
Jianping Hu

Analysis of a Triopoly Cournot Game with Capacity Constraint and Heterogeneous Players .................................................................................................................................30
Zhanguo Li, Yali Lu, and Fei Wang
A Performance Evaluation Model of Green Supply Chain Based on Balanced Scorecard .................................................................34
    Fang Yao and Yuxian Zhang

A Quantile Regression Analysis on the Relations between Foreign Direct Investment and Technological Innovation in China .................................................................38
    Zhou Chunying

Managing the Hierarchical Career Plateau in the Employee Development .................................................................42
    Mian Xia and Baoguo Xie

Design and Implementation of High-Quality Course Scoring System Based on Struts and Spring and Hibernate Architecture ........................................................................46
    Dawei Liu

The Concept of WEB Design Patterns Based on the Website Design Process .................................................................49
    Jiahao Lu, Yuehong Zhou, and Jie Zhang

Feasibility of Establishing an Industrial Investment Fund in Jiangsu Coastal Area - Based on Cobb–Douglas Production Function and GM (1, 1) Prediction Model .......................................................................53
    Wei Dai and Xiaojun Zhou

Electronic-Document-Based Management Process Model for Image Archives in Universities ........................................................................................................57
    Yong Wang, Bi-yan Sun, and Fei Cheng

Application of Object-Oriented Petri Net in Manufacturing System Modeling .................................................................61
    Lifu Wang and Yuxian Zhang

Financial Crisis Dynamic Prediction Based on Sliding Window Technology and Mahalanobis-Taguchi System ..................................................................................65
    Jianzhong Shi and Longsheng Cheng

University Intellectual Property Management Situations and Countermeasures Analysis .........................................................................................69
    Xianggang Hua, Dishi Xu, and Shan Shan

The Influence of Power Distance on Feminine Leadership in China .........................................................................................73
    Chen Gang

Knowledge Management Method for Expert System Based on Cognitive Model .........................................................................................77
    Shisong Zhu, Lifang Kong, and Jinping Liu

Marketing Strategies Management for Heng An Standard Life Insurance ..............................................................................81
    Dishi Xu, Xianggang Hua, and Shuobo Xu

Risk Management and Evaluation in Project Life Circle Based on the Sodor Oil Terminal Case Study .........................................................................................85
    Dishi Xu, Xianggang Hua, and Shuobo Xu
The Impact Factors and Model Analysis of Mobile Payment Service under the Background of 3G .................................................................89
  Chunmei Gu and Yun Ye

Knowledge Transfer in Equipment Acquisition Project .........................................................93
  Jiedong Wang and Yuanjing Zhai

The Financial Risk and Precaution of Real Estate Enterprises ...........................................96
  Wang Yumei and Liu Dandan

Search Engine Optimization Research for Website Promotion .............................................100
  Meng Cui and Songyun Hu

A Hybrid Integration Approach to Business Process Management Implementation ..........................104
  Ming Gao and Hongyu Jia

Research of Matching Maturity between Organization and Information System ..................109
  Xiaodong Li and Xiyuan Li

Strategy of Recycling Waste Resource with Governmental Incentives and Funds ................113
  Zhaoyun Tian

Website Structure Optimization System Model and Algorithms ...........................................117
  Shutong Cheng, Congfu Xu, and Hongwei Dan

The Model of BPM Based on Six Sigma and Its Application on Material Delivery of Discrete Manufacturing Enterprise ........................................122
  Chenglei Zhang, Hongjun Liu, and Junjia Zheng

Data Validation Based on Dojo .............................................................................................126
  Bingyan Chen, Yan Cao, and Xiangwei Mu

An Ontology-Based Conceptual Modeling Method for Data Warehouse ...............................130
  Lin He, Yan Chen, Ning Meng, and Lan Ying Liu

Application of PCA in Quality Assessment of College Students .........................................134
  Tao Zhang, Jing Guo, and Ning Zhang

Empirical Study on Application of Wiki Based Collaborative Lesson-Preparing .....................138
  Yingjie Ren and Chaohua Gong

Problems and Solutions in Human Resource Management in Chinese Engineering and Technology Universities ........................................142
  Qingxin Zhao

Enterprise Knowledge Transfer Performance Comprehensive Evaluation Research ................145
  Xunlian Si and Shuxia Song

The Impact of Urbanization on Co2 Emissions for Energy in China .......................................150
  Yuanqing Lu and Fang Huang
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Application of Competency Model in Staff Training</td>
<td>153</td>
</tr>
<tr>
<td>Jiahai Yuan, Xue Yun, and Yang Zhou</td>
<td></td>
</tr>
<tr>
<td>Industry Convergence and Its Macro Measurement</td>
<td>156</td>
</tr>
<tr>
<td>Xiaojun Zhou and Xing Wan</td>
<td></td>
</tr>
<tr>
<td>Description Method of Emergency Plan Base on Multiple Views Framework</td>
<td>160</td>
</tr>
<tr>
<td>Yaohong Zhang, Chonghui Dong, and Xianze Zhang</td>
<td></td>
</tr>
<tr>
<td>The Multi-agent Simulation to Impacts of the Blue-Green Algae Event in Taihu</td>
<td>164</td>
</tr>
<tr>
<td>Fuhua Sun, Juqin Shen, Jian Ji, Li Xu, and Feng Zu</td>
<td></td>
</tr>
<tr>
<td>Humanistic Study on the Relationship between Knowledge Management and Technology</td>
<td>168</td>
</tr>
<tr>
<td>Yulin Wu, Ning Liu, and Ruiling Liu</td>
<td></td>
</tr>
<tr>
<td>Evidence from Listed Companies in Manufacturing Sector of China</td>
<td></td>
</tr>
<tr>
<td>Jianqiang Guo, Ying Sun, and Shengli Suo</td>
<td></td>
</tr>
<tr>
<td>Barriers to Green Technology Innovation in Large and Medium-Sized Enterprises</td>
<td>175</td>
</tr>
<tr>
<td>Chen Yang and Hong Zhao</td>
<td></td>
</tr>
<tr>
<td>Assessment of the Information Disclosure Level about Government Website through AHP-TOPSIS Method</td>
<td>179</td>
</tr>
<tr>
<td>Fangjuan Zhu and Ye Liu</td>
<td></td>
</tr>
<tr>
<td>Positive Analysis of Influence on International Trade Development in International Logistics Industry in Tianjin</td>
<td>182</td>
</tr>
<tr>
<td>Huanhuan Li and Jinmei Dou</td>
<td></td>
</tr>
<tr>
<td>The Assessment of Supply Chain Risk Based on Scenario Analysis</td>
<td>186</td>
</tr>
<tr>
<td>Fen Jiang</td>
<td></td>
</tr>
<tr>
<td>System Model of Railway Passenger Transport Customer Relationship Management Based on SOA</td>
<td>191</td>
</tr>
<tr>
<td>Suozhu Wang, Nana He, and Xiaojun Lv</td>
<td></td>
</tr>
<tr>
<td>The Evaluation System of the Social Development Risk Based on the Factor Analysis and Monte Carlo Simulation</td>
<td>194</td>
</tr>
<tr>
<td>Wei Liu, Mujin Yuan, and Hong Zhou</td>
<td></td>
</tr>
<tr>
<td>Game Analysis of Fund Supervision</td>
<td>197</td>
</tr>
<tr>
<td>Guangrong Tong and Chang Liu</td>
<td></td>
</tr>
<tr>
<td>Appraisal about Independent Innovation Ability of Enterprises in Jinan</td>
<td>200</td>
</tr>
<tr>
<td>Ye Sun</td>
<td></td>
</tr>
<tr>
<td>Training the ERP Project Implementation Personnel Based on the Life-Cycle Theory</td>
<td>204</td>
</tr>
<tr>
<td>Yuesheng Zhang</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Development Strategy of Information Industry Based on the View of Current Human Resources in China</td>
<td>207</td>
</tr>
<tr>
<td>Yuesheng Zhang</td>
<td></td>
</tr>
<tr>
<td>Informatization Construction of University Teaching Service System</td>
<td>211</td>
</tr>
<tr>
<td>Zheng-wei Zhu and Yu-ying Guo</td>
<td></td>
</tr>
<tr>
<td>Population Flow Model of China’s Developed Cities Based on P-N Junction Model</td>
<td>215</td>
</tr>
<tr>
<td>Huina Tang, Tong Li, and Weiling Su</td>
<td></td>
</tr>
<tr>
<td>When International Service Outsourcing Begin: A Transaction Cost Economics Perspective</td>
<td>219</td>
</tr>
<tr>
<td>Zhi-cheng Ren</td>
<td></td>
</tr>
<tr>
<td>Theory Advocating and Practice Confirmation about Resources Division Endogenous Evolution Based on Scarcity of Natural Resources</td>
<td>224</td>
</tr>
<tr>
<td>Guo-gang Jiang and Jing Chen</td>
<td></td>
</tr>
<tr>
<td>An Inventory Model for Ameliorating and Deteriorating Fresh Agricultural Items with Ripeness and Price Dependent Demand</td>
<td>228</td>
</tr>
<tr>
<td>Jun Chen</td>
<td></td>
</tr>
<tr>
<td>A Model of Knowledge Work from the Perspective of Objective Ontology</td>
<td>232</td>
</tr>
<tr>
<td>Daqun Wang, Changjun Dai, and Pu Xu</td>
<td></td>
</tr>
<tr>
<td>The Web-Based Remote Mechanical Fault Diagnosis System under Linux</td>
<td>236</td>
</tr>
<tr>
<td>Rui Zeng, Chang-Long Du, Rui Xu, and Qin-hui Li</td>
<td></td>
</tr>
<tr>
<td>The Application of XBRL in Chinese Enterprises under the Information Processing Environment</td>
<td>239</td>
</tr>
<tr>
<td>Guangqiang Han and Yan Liu</td>
<td></td>
</tr>
<tr>
<td>Implementation of the Web-Based Collaborative Learning Model in College English Teaching</td>
<td>242</td>
</tr>
<tr>
<td>Meiyan Liu</td>
<td></td>
</tr>
<tr>
<td>Development of Green Energy-Saving Web Atoms Component</td>
<td>246</td>
</tr>
<tr>
<td>You-sheng Liu and Guang-zhong Cao</td>
<td></td>
</tr>
<tr>
<td>The Internal Factors Influencing the Competence of Software Outsourcing Enterprises - Based on the Survey of Jiangsu Software Outsourcing Enterprises</td>
<td>250</td>
</tr>
<tr>
<td>Wenfeng Qu, Xingqiu Hu, and Chao Xu</td>
<td></td>
</tr>
<tr>
<td>Educational Web Mining Applications in Intelligent Web-Education Systems</td>
<td>254</td>
</tr>
<tr>
<td>Shengjian Liu</td>
<td></td>
</tr>
<tr>
<td>Performance Evaluation Research of Urban Emergency Logistics System</td>
<td>258</td>
</tr>
<tr>
<td>Daqing Li</td>
<td></td>
</tr>
<tr>
<td>Management of Booklist in Extensive Reading Course</td>
<td>261</td>
</tr>
<tr>
<td>Xiaobin Ji</td>
<td></td>
</tr>
</tbody>
</table>
### Analysis of the Efficiency of Data Transmission Format Based on Ajax
Peng Wang, Xiaodong Wu, and Huamin Yang

### The Construction of Carbon Emissions Warning Expert System for China
Jieping Han and Rijie Cong

### The Simulation System of China’s Carbon Trading Based on Grey Prediction
Jieping Han and Yaqiong Wei

### AMP to Measure Teachers’ Professional Identity
Li Sun

### Development of the On-Line Monitoring System for Farmland Soil Information
Hui Yang, Lijia Xu, Songbo Chen, Chaoping Chen, Jiantao Tan, and Boyi Li

### Designing of Test Signal and Decoder of High-Definition Digital Video Presenter
Wei Zhou, Sujing Xia, Yong Gu, Xiang Li, Jie Yang, and Wu Tang

### Research on College Students’ Social Practice Management Based on Intelligent Workflow
Gongli Luo, Faliang Nie, and Junwei Du

### Factors Influencing the Efficacy of Food Safety Communication
Weizhong Hu and Jin Han

### Design of the Multi-encrypted Circuit Based on FPGA
Minggang Chai, Min Chen, and Xia Hai

### The Multidimensional Properties of Complex Network
Qi Gao and Xiaoting Li

### Analysis on Coordinated Development of Agriculture Information Service and Business Circulation between Urban and Rural
Zhongcai Wu

### Isomorphism Testing Algorithm Based on Dijkstra Algorithm for Plan Graphs
Shuiqiang Liu and Yanpeng Wu

### The Applicational Analysis of Lightning Monitoring Data and Atmospheric Instability Parameters
Shanbai Zeng

### Investigate of PIN Microrystalline Silicon Solar Cell Based on One-Dimensional Model
Jun Zhu, Jianning Ding, Shubo Wang, and Liqiang Guo

### A Study on PIN Solar Cell with a-Si:H/mc-Si:H Double-Intrinsic Layer
Zhu Jun, Ding Jian-Ning, and Guo Li-Qiang

### Dynamic Modeling and Analysis for Intelligently Reconfigurable Manufacturing Cell Control System
Bin Wu and Lifeng Xi
Modeling and Simulation Method Research for Intelligently Reconfigurable Manufacturing Cell Control System .................................................................326  
  Bin Wu and Lifeng Xi

The Systematic Analyses for Take-Off and Landing in Tail Wind ..................................................330  
  Wenzhi Zhao, Zhonghua Li, and Huajia Wang

Modeling and Analyzing for Automotive Nets System Based on OOPN ........................................335  
  Hua Fang, Jianghong Han, and Zhenchun Wei

The Botnet Defense and Control ........................................................................................................339  
  Weixi Sun and Hongling Gou

An Efficient Method of Image Identification by Combining Image Features ........................................343  
  Zhenhai Wang

Optimization of KVM Network Based on CPU Affinity on Multi-cores .............................................347  
  Zhaoliang Guo and Qinfen Hao

Schedule Conflict Coordination of Tobacco Construction Project .....................................................352  
  Mei-di Shan

Adaptive Sliding Mode Control for Permanent Magnet Synchronous Motor ........................................356  
  Yezhan Zeng

Medical Image Segmentation Based on Genetic Algorithm ................................................................359  
  Xiao-wei Guan, Xia Zhu, and Shangbing Gao

A Research for the Centrality of Article Edit Collective in Wikipedia ................................................363  
  Dongjie Zhao, Haitao Yang, Jian Jiang, Deyi Li, and Haisu Zhang

Performance Analysis of MHT Algorithm in Cluttered Environment ..................................................367  
  Jianhui Guo

Author Index - Volume 4 ......................................................................................................................371