(ICM 2011)

Nanjing, Jiangsu, China 24 – 25 September 2011

Volume 1 Pages 1-404



IEEE Catalog Number: ISBN:

ICM 2011

Welcome Message - Volume 1	Xi
Organizing Committee - Volume 1	xii
Reviewers - Volume 1	xi\
Volume 1	
The Improved Research of Fault Diagnosis Algorithm in Intelligent BIT Design Peng Zhang, Yuntao Chen, and Youhua Ding	3
The Information Optimizing Model of Language and Its Verification by Mandarin Phonetic Statistics	7
The Development Process of Component-Based Application Software	11
Prediction of Mechanical Properties of Hot Rolled Strips by BP Artificial Neural Network	15
The Application of ART2 Two-Factor Optimization Method to Engine Fault Diagnosis	18
Ye Sun, Hongxin Wang, Xiang Guo, and Zhejing Yi	
Low-Input High-Output Synchronous Rectification Boost DC-DC Simulation Based on MOSFET Model Scaling Down to 22nm	22
A Taxonomy of Network and Computer Attacks Based on Responses	26

A Hybrid Algorithm for Single-Depot Integrated Vehicle Routing Problem	30
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	45
Hypersonic Target	45
Fault Diagnosis of Gearbox Based on Order Domain Averaging	49
A Novel Correction Algorithm Based on Polynomial and TPS Models	52
MS5534B Pressure Sensor and Its Height Measurement Applications	56
VSI X and R Control Charts with B&L Switching Rule Zhifang Guo and Longsheng Cheng	60
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
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
Design and Simulation of Neuron PID Controller	80
Genetic Algorithm Based on Software Diagnosis Testing	83
SaaS-Based Services Information Technology Acceptance Model	87
Research of Ship Grounding Prediction Based on Fuzzy Theory	91

Fire Distribution Optimization Based on Quantum Immune Genetic Algorithm	95
Fuzzy Minimal Solution of Fuzzy Linear Matrix Equations	99
Ship Trajectory Online Prediction Based on BP Neural Network Algorithm Tingting Xu, Xiaoming Liu, and Xin Yang	103
The Improvement of Multi-criterion Minimum Spanning Tree Based on the GA	107
FMEA-Based Control Mechanism for Embedded Control Software	110
Risk Management Game Method of the Weapons Project Based on BP Neural Network	113
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
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 Jianfeng He, Yufeng Li, Wei Zhang, Fang Fang, and Hongkun Xu	134
Fuzzy Decision Tree Algorithm for Customer Knowledge Management of PLM	139
ACO-Based Search Algorithm in Unstructured P2P Network	143
E-Commerce Application Model Based on Cloud Computing	147
An Improved Multi-objective Genetic Algorithm Based on Granular Ranking and Distant Reproduction	151
An Initiation Policy of Federate Migration Based on Load Monitor and Prediction for Analysis Simulation	155

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	103
The Metric System about Software Maintenance	167
A New Method for Sewing Machine Starting Based on BLDCM	170
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
Highway Traffic Simulation Based on Cellular Automaton	181
Evaluation of Talent Cultivation for Colleges and Universities Based on Principal Component Analysis and BP Neural Network	185
Analysis on Identification Technologies of Program Code Similarity	188
The Application of Modified Genetic Algorithm in Logistics Distribution Routing Optimization	192
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
The Dynamic Retrieval Tree Menu Based on Dojo	202
Data Collection System Based on SaaS Architecture	206
Hybrid Production Sequence Control Research Based on TOC&WLC	211
Compensation Structure Decision-Making Based on Fuzzy Evaluation Model	215

The Situation Analysis of the Network Public Opinion Based on the Variable-Weighted Choquet Fuzzy Integral	219
On a New Universal Algorithm for Coins Problem and Its Realization	226
MPPT of Solar Energy Generating System with Fuzzy Control and Artificial Neural Network	230
Keya Huang, Wenshi Li, and Xiaoyang Huang	
Modified Monte Carlo Method for Triple Integral Ping Wang	234
Extended Rough Set Model Based on Prior Probability and Valued Tolerance Relation	237
Jinchao Zhao and Jin Xu The Application of Cloud Computing in Military Intelligence Fusion Xi Cheng and Xuejun Liao	241
Expert Systems for Fault Diagnosis Integrating Neural Network and Fuzzy Inference	245
Network Effects and the Stability of Loop Networks	249
An Optimal Model and Its Algorithm for Multi-echelon MSW Recycling Network Design	254
Aimin Deng, Lang Mao, Feng Tian, and Jia Cai	
Ultrasonic Signal Multiplex Technology for Dynamic Wheelset Defect Detection System	260
Fault Diagnosis of Missile Test Launching-Control System	263
A Robust Weighted Kernel Principal Component Analysis Algorithm	267
The Phonetic Information Redundancy in Mandarin: A Support for Information Optimizing Model of Language	271
A Corpus Building Method on Forensic Identification of Dialects (FIDS)	275
Aircraft Landing Gear Simulation Using Multidomain Modeling Technology	279

Applying Artificial Neural Network Technique and Theory to Study the Hairiness of Polyester/Cotton Blended Yarn in Warping Process	282
Neural Network for Prediction of Hairiness of Ring Spun Cotton Yarn Zhao Bo	286
Fire Assignment Optimization of Network-Centric Artillery Combat Based on Genetic Algorithm	290
Function Fitting about Internal Stress of Ceramic Paste Based on BP-NN and SVM	204
Yan-zi Zhao and Wei Tang	294
Optimal Portfolios for DC Pension under the Quadratic Utility Function	297
A Solution to a Species of Unlimited Equipment Support Problem by ACO	301
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 Qinghe Su, Hong Cheng, Wenbang Sun, and Xinwei Bai	308
Solving MRCPSP by Constraint Programming	312
Short-Term Traffic Flow Combined Forecasting Based on Nonparametric Regression	316
A Registration Algorithm Based on Feature Point	320
A Web-Based Automatic Warning System for Citrus Bacteria Canker Disease Using AHP Methodology Daoying Xiong and Jianbang Chen	324
Research and Comparison for Acceleration and Deceleration Control Algorithm in NC Systems	328
Evaluating Scalability of Emerging Multithreaded Applications on Commodity Multicore Server	332
Xuhao Chen, Jiawen Li, Zhong Zheng, Li Shen, and Zhiying Wang	
On the Application of BGP Routing Views	336

340
344
347
351
0.5.5
355
359
363
367
371
375
380
385
389
393
398
401

(ICM 2011)

Nanjing, Jiangsu, China 24 – 25 September 2011

Volume 2 Pages 1-405



IEEE Catalog Number: (ISBN:

ICM 2011

Welcome Message - Volume 2	xi
Organizing Committee - Volume 2	xii
Reviewers - Volume 2	xiv
Volume 2	
FPGA-Based Communication Module in Numerical Control System with Software Hardening Technology	
Jianmin Zuo, Hao Zhu, Xinghua Zhu, and Hua Yan	
Design of Weapons Training Simulator of the Audio Transmission System	
Based on FPGA Platform	
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 Lei Sun and Jun Zhang	26
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
A New Scheme for IM Based on XMPP/SIMPLE	38
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
Research on Mechanism and Operation Model of Logistics Finance Peng Du and Shangkun Liang	50
Use Cases and Feedback in Functional Requirements Analysis	54
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
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
Performance Analysis of Reception for OFDM Communication Systems	72
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
The Order Parameter and the Servo Process of Safety Management System of Coal Mine Construction Project	83

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
Centrality Analysis of BBS Reply Networks	96
The Best Value Based Bidder Selection Research in Construction Bidding	100
XML Encoding Scheme of Supporting Updating Data Completely	103
Cascaded Movement Strategy for Repairing Coverage Holes in Wireless Sensor Networks	108
Xiangai Liu, Yanli Feng, Qingcong Lv, and Tongtong Zhao	
B2B E-Commerce Adoption in Developing Countries: A Chinese Study	112
Research and Implementation of DNS-White-List Tool Based on C#.NET	116
Recovering and Protecting against DNS Cache Poisoning Attacks	120
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
A New Ontology of Resource Specification for Wireless Sensor Networks	138
Discovering Hidden Leaders through Email Log Based on Chance Discovery	141
A Policy of Reducing Power Consumption for Bluetooth Devices Jun Tang	145
A Radio Interference Detection Approach Based on TIFROM	149
Intrusion Detection Algorithm Based on Semi-supervised Learning	153

Anomaly Intrusion Detection Method Based on K-Means Clustering Algorithm	4.57
with Particle Swarm Optimization	157
A New Load-Balancing Algorithm for Multihop Wireless Networks	162
The Application Research of Characteristic Code Techniques in Attack and Defense	167
A Process Model of Software Evolution Requirement Based on Feedback	171
Performance Evaluation of R&D Network with ANP&EBSC	175
Security Analysis of a Proxy Blind Signature and Its Improved Scheme	179
Improved Otsu Target Tracking Algorithm Based on Iteration	183
An Energy-Aware Routing Strategy Based on Dynamic Priority Factor in Ad Hoc Networks	189
Localization Algorithm for Wireless Sensor Network Based on Energy Threshold	193
Time to Digital Based on Reconfiguration Technology	198
MAC Protocol Wireless Ad Hoc Network for Long Delay Channel	201
Design of Internet-Based Remote Monitorial System of Long-Distance Pipeline	206
Knowledge Sharing within Innovation Network Members with Netlogo Simulation Platform	210
Cooperative Agent-Based QoS Framework for Heterogeneous Networks	214
A Framework of Heterogeneous Real-Time Video Surveillance Network Management System Jinyi Wang and Baoping Yan	218
Rapid Adaptive Beamforming Algorithm for Multi-user Cognitive Radio Systems	222

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	005
Reservation	235
	220
The Application of Internet of Things in Teaching Management System	239
The Counterbalance Mechanism of Blockholders and the Effectiveness	
of Internal Control: A Case Study Based on the Listed Liquor Companies	0.40
in China	242
	0.46
The Multi-level Self-Adaptive Space Communication Security Protocol	240
The Application of the Shortest Path Algorithm in the Evacuation System	250
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
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
An Improved Identity-Based Group Signature Scheme	269
	272
Reducing Multi-user Interference through Rotation Matrix	212
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	000
Sequence Alignment	288
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
Quality Control for High-Speed Digital Multi-layer Printed Circuit Board	299
Toward a Synthetic Evaluation of the Attention Distribution Ability of Drivers	305
Analysis and Implement of ECG Front-End Signal Processing Circuit	309
A Fractal Multi-wavelets Filter Design and Application	313
Linear Regression Method for Binary Life Data from Weibull Distribution	317
Image Recognition Technology in Intelligent Cotton Harvesting Machine	320
Behavioural Approaches to Safety Management in Underground Mines	324
Numerical Simulation Study on Law of Steam Flooding Effect under	
the Conditions of Different Oil Viscosity Values in the Low Permeability Oilfield	328
A New Intelligent Tire Pressure Monitoring System	332
Fast Calculation of EM Scattering from Dielectric Target above Dielectric	
Gauss Rough Surface Based on Cross Coupling Iterative Approach Tian Bo and Tong Chuang-ming	336
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
Chaoiun Xu and Shanghing Gao	

The Application of Fuzzy Two-Dimensional Principal Component Analysis	240
(F2DPCA) on Face Recognition	349
The Cross-Spectrum Approach for Underwater Multi-target Direction	
Estimation	354
Yanni Gou and Yingmin Wang	
Classified Segmentation of Online Complex Freehand Sketching	358
Moving Target Classification Technique in Video Sequence	362
A Multiproduct Duopolistic Pricing Model in Network Convergence	366
A Design of Virtual Machining Simulation System for Magnesium Alloy Extrusion Machine	370
Multivariate Time Series Analysis in Corporate Decision-Making Application	374
A New Automatic Matching Algorithm of Aerial Remote Sensing Images	377
An Improvement of PSWF Pulse Generator Based on Difference Quantitation	381
A New Hyperchaotic Liu System	385
A Simple Way to Realize the Accurate Detection of Cells' Edge	388
Underdetermined Blind Separation for Speech Signal Based on Two-Step Sparse Component Analysis	392
Numerical Simulation and Experimental Test on Muzzle Brake Efficiency	396
A Channel Estimation Algorithm Based on Decision-Directed Algorithm	400
Author Index - Volume 2	403

(ICM 2011)

Nanjing, Jiangsu, China 24 – 25 September 2011

Volume 3 Pages 1-402



IEEE Catalog Number: ISBN:

ICM 2011

welcome Message - Volume 3	XI
Organizing Committee - Volume 3	xii
Reviewers - Volume 3	Xi\
Volume 3	
Measuring Reflection Coefficient of Underwater Acoustic Materials with the Vector Hydrophone	3
A New Method for the Morph of Planar Polygons Based on Shape Feature	
Application of the MITK Based Intelligent Volume Rendering by Ray-Leaping Method in Medical Image Visualization Zhen Qu and Xinqiang Qin	11
Remote Sensing Image Enhancement Method Based on Multi-scale Retinex	15
Randomization of Łukasiewicz 3-ValuedPpropositional Logic System	19
Probability-Weighted D-Optimal Designs Considering the Distribution of the Factors Han-yan Huang, Lei Wang, Yun-Tao Chen, and Yu-Lan Chen	22
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	

Stratosail's Stress Analysis and Modeling	30
Numerical Simulation Research of Injection Concentration and Quantity Optimization on Polymer Surfactant Flooding	34
Guoliang Song, Chengli Zhang, Chunyan Li, and Jian Zhang	
Lane Detection Based on the Random Sample Consensus	38
Watermarking Algorithm Based on Kernel Fuzzy Clustering and Singular Value Decomposition in the Complex Wavelet Transform Domain Jun Fan and Yiquan Wu	42
The Distance of Lance and Angle Cosine for the Ultrasonic Guided Wave Signal Processing	47
Fengbin Tian, Yang Jiao, and Guanghai Li	
User-Oriented Service Design and Innovation	51
Features of Ultrasonic Radio Frequency Signal in Microwave Ablation Experiments	55
Chunlan Yang, Lei Sheng, Shuicai Wu, and Yanping Bai	
A Novel Approach to Pruning Volterra Models with Memory Effects	59
Detecting Preserved Eggshell Crack Using Machine Vision	62
Detonation and Extinction Simulation of Smoke Munitions and GUI Design Based on Matlab	66
Ying Huang, Jiheng Xu, Hong Yin, Xiuli Qi, and Suojuan Zhang	
Motion Objects Detection Based on Higher Order Statistics and HSV Color Space	71
Xuegang Hu and Wentao Hu	
Compressed Sensing by Wavelet-Based Contourlet Transform	75
RF Front-End Design of Large Dynamic Range Receiver for Satellite Communication	79
Jun Zhang, Tao Shuai, and Yue-hong Zhou	
Underground Building Unequilibrium Radon and Its Progeny Analysis and Control	84
Junjie Jin and Zhonghua Tang	
Design and Realization of a Horizontal Posture of Detection System	88

Optimum Design of Main Circuit for High-Power HID Lamps Electronic Ballast Jian Zhang, Zhongni Zhu, Qingguo Song, and Rong Wang	92
Simulation of Control Strategy for Automotive Semi-active MRF Dampers	96
The Air Traffic Congestion Analysis for Landing	100
An Improved Decoding Algorithm of Non binary LDPC Code	104
Wavelet Threshold Denoising of Thermal Image from Transmission Joints	108
Abnormal Phenomenon of NCEP and the Celestial Bodies Tidal Force before the Wen'an Earthquake	112
Analysis of Fault Signal in Aircraft Power System Based on Hilbert-Huang Transform Wei Fu and Yan Zhu	115
Fuzzy Enhancement Based on Transition Zone Edge Detection Algorithm for SAR Image	119
Research on the Ways of Customer Maintenance in Transportation Enterprises	123
Image Processing in Dynamic Reconfigurable Platform	127
Simulation of Soft Start-Up of Asynchronous Machines with Pump-Control Function Based on Thyristor	131
An Adaptive Identification System Based on Chinese Handwriting	136
The Method to Construct the Three-Dimensional Model Based on OpenGL Leisheng Zhang, Manqing Chen, Yujun Liu, and Yuanzhou Li	140
Research and Development of Test Platform for 3D Real-Time Rendering Algorithm Ke-ping Tang	144
Sound Effect of Physical Engine in Game Design Ting Wei and Hao Zheng	148
A New Modulation Implementation Method of the CPM	152

Finite Element Solution of the Interaction Factors between Surface Cracks under Tensile Load	156
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
Lips Detection Based on Skin Model and Adaboost Algorithm in the Human-Wheelchair Interaction	169
Empirical Analysis on the Relationship between China's Carbon Dioxide Emissions and Economic Growth Based on ECM	173
Transfer Ensemble Model for Customer Churn Prediction with Imbalanced Class Distribution Yuan Wang and Jin Xiao	177
Have the Career Attitudes Changed to Protean Ones? Evidence from Managers in One Company in China Central Regions	182
Chinese Firms' Internationalization and Performance on the Basis of Learning Capability	186
An Approach to Battlefield Data Management of Targets and Environment Yi Liang and Jijuan Xing	190
Establishing Financial Crisis Early Warning Models for Listed Companies Dai Wei	195
An Empirical Study on Application of Wiki-Based Collaborative Lesson-Preparing Yingjie Ren and Chaohua Gong	199
Software Industry Competitive Strategy and Innovation: A Comparison among Typical Nations	203
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

Software Interface Failure Modes and Effect Analysis Based on UML	215
The Principal-Agent Analysis of China Coal Mine Safety Regulations Bin Wang and Ziyong Cheng	219
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
Reflection on E-Government Development in China	227
XML and Behavior Modeling-Based Information Sharing and Exchange Method in Human Resource Outsourcing Service Industry	230
Computer Basic Teaching in Xinjiang Vocational College	236
Application of Statistics in the Process of Teaching Study	240
The Impact of Macro Economic Uncertainty on Investments	244
AHP-Based Home Appliance Chain Logistics Distribution Model	248
Financial and Tax Incentive Policy for Promoting the Self-Renovation Capability of Medicine Industry	252
A Building Method of XML Knowledge Base Using Domain Ontology Huayu Li and Xiaoming Zhang	256
The Characteristics of Chinese Defense Intellectual Property	260
Market Confidence and Reputation Feedback System in Online Transactions - Based on Multi-agent Computational Experiment Kui Lui, Li Jiang, and Jingqiu Shen	263
Knowledge Transferred across Projects and Its Characteristics in an IT Service Enterprise Dali Zhao and Meiyun Zuo	267
A Two Stage Choosing Model for Equipments Maintenance Outsourcing Pattern of Mechanical Manufacturing Enterprise Pengju Li, Zhonghua Cheng, Xinyue Li, and Pengfei Li	271
High-Interaction Honeypot System for SQL Injection Analysis	274

Province Policy Recommendations for Snandong	278
Qinghua Zhu	270
Semantic Interaction Model of Knowledge Transfer Process in Virtual	
Communities of Practice	282
Yang Bai and Guishi Deng	
Motivation to Mergers and Acquisitions of High Technology Firms: Grounded	200
in Integration Theory of Resources and Capabilities	286
M-Government Use: Technology, Context and Environment Determinants	290
Factors that Influence a Buyer's Decision Process of Shopping Online: The	
Effects of Tradition and Virtual Community	294
E-Government Satisfaction: A Conceptual Model	298
Zhenhua Lu, Yuqiang Feng, Changlin Wang, and Runsheng Fang	
Strength of Ties, Firm Age and Innovation: An NKC-Model Simulation	301
The Innovation Spillover Probability Model of Inter-industries: Empirical	
Demonstration Based Paper Growth Rate Analysis	305
Calculation of the Cycle and Working Hours for Complex Projects	
with Iterations	309
GuoRong Chai, ZhiKun Du, Guoxing Zhang, and Yana Su	
Motivation Effect of Total Rewards on University Seminar Members	313
An Optimization Method of Workflow-Based Web Service Composition Model	317
Ethical Issues in Information Systems	321
An Ontology-Based Data Integration System with Dynamic Concept Mapping and Plug-In Management	224
Fangyuan Guo and Yu Fang	524
Risk-Oriented Continuous Supply Strategy in a Manufacturing Supply Chain Wenpeng Wang and Xinning Yu	329
Management Strategy Innovation of Electronic Commerce Enterprises	332
The Design of Personal Knowledge Management System Based on Web2.0	336

Analysis of Certain College Students Major in Communication	340
The Analytic Hierarchy Process Method for Integrate Distribution Issue of Agricultural Products Logistics	342
Remanufacturing Service Supply Chain Competitiveness Evaluation Based on the Equivalent Quality	345
Designing of Collection and Delivery Point for E-Commerce Logistics	349
Trend and Strategy: Energy Consumption and Carbon Emissions in Beijing	353
Future Applications of Virtual Reality Technology Outlook	356
Construction of Equipment Knowledge Management System	359
Blog for Teacher Implicit Knowledge Sharing Model Construction	363
A Clustering Approach to Distinguish the Change-Point	368
Influencing Factors of Equity Financing Preference: Empirical Evidence on China's Listed Companies	372
Safety Management of Work Vessel in Deep Water Based on Fault Tree Analysis	377
Job Perceptions of Hotel and Tourism Employees: A Comparative Study	381
Technology Incubators and the Entrepreneurial Behavior of New Technology-Based Firms	385
Design and Implementation of Customer Relationship Management System Based on Structured Object-Oriented Methodology	390
Operational Skill Training Needs Analysis for Manufacturing Industry	394
Author Index - Volume 3	399

(ICM 2011)

Nanjing, Jiangsu, China 24 – 25 September 2011

Volume 4 Pages 1-373



IEEE Catalog Number: ISBN:

ICM 2011

Welcome Message - Volume 4	xi
Organizing Committee - Volume 4	xii
Reviewers - Volume 4	xi\
Volume 4	
Thickness of Tail Index of China Stock Markets Jin Ru Long, Ping Li, and Yong Zeng	
Review on Hybrid Flow Shop Scheduling Wenpeng Wang	7
Model and Optimal Bidding Strategies in Multi-attribute English Auction	11
Design and Implementation of Power Customer Value Evaluation System	16
Analyze about Network Businessmen Development Approaches under New Business Civilization	21
Training Needs Analysis of Talent Intermediary Organization Based on Goldstein Model - A Case Study of a Talent Intermediary Organization	25
Analysis of a Triopoly Cournot Game with Capacity Constraint and Heterogeneous Players	30

Scorecard	34
Fang Yao and Yuxian Zhang	
A Quantile Regression Analysis on the Relations between Foreign Direct Investment and Technological Innovation in China	38
Managing the Hierarchical Career Plateau in the Employee Development	42
Design and Implementation of High-Quality Course Scoring System Based on Struts and Spring and Hibernate Architecture	46
The Concept of WEB Design Patterns Based on the Website Design Process	49
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
Application of Object-Oriented Petri Net in Manufacturing System Modeling Lifu Wang and Yuxian Zhang	61
Financial Crisis Dynamic Prediction Based on Sliding Window Technology and Mahalanobis-Taguchi System	65
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 Chen Gang	73
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
Risk Management and Evaluation in Project Life Circle Based on the Sodor Oil Terminal Case Study	85

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
The Financial Risk and Precaution of Real Estate Enterprises	96
Search Engine Optimization Research for Website Promotion	100
A Hybrid Integration Approach to Business Process Management Implementation	104
Research of Matching Maturity between Organization and Information System	109
Strategy of Recycling Waste Resource with Governmental Incentives and Funds	113
Website Structure Optimization System Model and Algorithms	117
The Model of BPM Based on Six Sigma and Its Application on Material Delivery of Discrete Manufacturing Enterprise	122
Data Validation Based on Dojo	126
An Ontology-Based Conceptual Modeling Method for Data Warehouse	130
Application of PCA in Quality Assessment of College Students	134
Empirical Study on Application of Wiki Based Collaborative Lesson-Preparing	138
Problems and Solutions in Human Resource Management in Chinese Engineering and Technology Universities	142
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

The Application of Competency Model in Staff Training	153
Industry Convergence and Its Macro Measurement	156
Description Method of Emergency Plan Base on Multiple Views Framework	160
The Multi-agent Simulation to Impacts of the Blue-Green Algae Event in Taihu Lake on Prices of the Bottled Water in Wuxi City Fuhua Sun, Juqin Shen, Jian Ji, Li Xu, and Feng Zu	164
Humanistic Study on the Relationship between Knowledge Management and Technology	168
Yulin Wu, Ning Liu, and Ruiling Liu	
Is Investment-Cash Flow Sensitivity a Good Proxy for Financial Constraints? Evidence from Listed Companies in Manufacturing Sector of China Jianqiang Guo, Ying Sun, and Shengli Suo	171
Barriers to Green Technology Innovation in Large and Medium-Sized Enterprises	175
Assessment of the Information Disclosure Level about Government Website through AHP-TOPSIS Method	179
Positive Analysis of Influence on International Trade Development in International Logistics Industry in Tianjin	182
The Assessment of Supply Chain Risk Based on Scenario Analysis Fen Jiang	186
System Model of Railway Passenger Transport Customer Relationship Management Based on SOA	191
The Evaluation System of the Social Development Risk Based on the Factor Analysis and Monte Carlo Simulation	194
Game Analysis of Fund Supervision	197
Appraisal about Independent Innovation Ability of Enterprises in Jinan	200
Training the ERP Project Implementation Personnel Based on the Life-Cycle Theory	204

Development Strategy of Information Industry Based on the View of Current Human Resources in China	207
Informatization Construction of University Teaching Service System Zheng-wei Zhu and Yu-ying Guo	211
Population Flow Model of China's Developed Cities Based on P-N Junction Model	215
When International Service Outsourcing Begin: A Transaction Cost Economics Perspective	219
Theory Advocating and Practice Confirmation about Resources Division Endogenous Evolution Based on Scarcity of Natural Resources Guo-gang Jiang and Jing Chen	224
An Inventory Model for Ameliorating and Deteriorating Fresh Agricultural Items with Ripeness and Price Dependent Demand	228
A Model of Knowledge Work from the Perspective of Objective Ontology Daqun Wang, Changjun Dai, and Pu Xu	232
The Web-Based Remote Mechanical Fault Diagnosis System under Linux	236
The Application of XBRL in Chinese Enterprises under the Information Processing Environment	239
Implementation of the Web-Based Collaborative Learning Model in College English Teaching Meiyan Liu	242
Development of Green Energy-Saving Web Atoms Component	246
The Internal Factors Influencing the Competence of Software Outsourcing Enterprises - Based on the Survey of Jiangsu Software Outsourcing Enterprises	250
Educational Web Mining Applications in Intelligent Web-Education Systems	254
Performance Evaluation Research of Urban Emergency Logistics System Daqing Li	258
Management of Booklist in Extensive Reading Course	261

Applications	265
Peng Wang, Xiaodong Wu, and Huamin Yang	200
The Construction of Carbon Emissions Warning Expert System for China	269
The Simulation System of China's Carbon Trading Based on Grey Prediction	273
AMP to Measure Teachers' Professional Identity	277
Development of the On-Line Monitoring System for Farmland Soil Information	280
Designing of Test Signal and Decoder of High-Definition Digital Video Presenter	284
Research on College Students' Social Practice Management Based on Intelligent Workflow	288
Factors Influencing the Efficacy of Food Safety Communication	292
Design of the Multi-encrypted Circuit Based on FPGA	295
The Multidimensional Properties of Complex Network	299
Analysis on Coordinated Development of Agriculture Information Service and Business Circulation between Urban and Rural	305
Isomorphism Testing Algorithm Based on Dijkstra Algorithm for Plan Graphs	309
The Applicational Analysis of Lightning Monitoring Data and Atmospheric Instability Parameters	312
Investigate of PIN Microrystalline Silicon Solar Cell Based on One-Dimensional Model	316
A Study on PIN Solar Cell with a-Si:H/mc-Si:H Double-Intrinsic Layer	319
Dynamic Modeling and Analysis for Intelligently Reconfigurable Manufacturing Cell Control System	322

Modeling and Simulation Method Research for Intelligently Reconfigurable	
Manufacturing Cell Control System	
Bin Wu and Lifeng Xi	
The Systematic Analyses for Take-Off and Landing in Tail Wind	
Modeling and Analyzing for Automotive Nets System Based on OOPN	
The Botnet Defense and Control	
An Efficient Method of Image Identification by Combining Image Features343 Zhenhai Wang	
Optimization of KVM Network Based on CPU Affinity on Multi-cores	
Schedule Conflict Coordination of Tobacco Construction Project	
Adaptive Sliding Mode Control for Permanent Magnet Synchronous Motor	
Medical Image Segmentation Based on Genetic Algorithm	
A Research for the Centrality of Article Edit Collective in Wikipedia	
Performance Analysis of MHT Algorithm in Cluttered Environment	
Author Index - Volume 4	