

2010 International Conference on Machine Learning and Cybernetics

(ICMLC 2010)

**Qingdao, China
11 – 14 July 2010**

**Volume 1
Pages 1-551**



**IEEE Catalog Number: CFP10523-PRT
ISBN: 978-1-4244-6526-2**

Contents

Greetings from the General Chairs	I
Greetings from the Program Committee Chairs and Co-Chairs	II
Organizing Committee	III
Organizing Committee of IWWIP	V
Program Committee	VII
Program Committee of IWWIP	IX
List of Reviewers	X
List of Reviewers for IWWIP	XII

Contributed Papers

Advanced Network Applications and Technologies

A Feedback Double Filtering Based Model for Evaluating Reputation in Peer-To-Peer Networks Yi-Ping Bao, Li Yao, Wei-Ming Zhang, Jiu-Yang Tang	1
A Method for Local Community Detection by Finding Maximal-Degree Nodes Qiong Chen, Ting-Ting Wu	8
Building Tin (Triangular Irregular Network) Problem in Topology Model Vu Thanh Nguyen	14
Design and Implementation of Mas in Renewable Energy Power Generation System Shu-Yun Jia, Jiang Chang	22
Fuzzy Feed forward System Based on T-S Model Applied for Constant Power Control in Wind Power System Hai-Liang Peng, Peng Guo, Jian-Jun Jia	26
Genetic Regulatory Networks Established by Shortest Path Algorithm and Conditional Probabilities for Ovarian Carcinoma Microarray Data Meng-Hsiun Tsai, Hsiao-Han Ko, Sheng-Chuan Chiu	32
Hybrid Transfer Function Networks I-Cheng Yeh, Chung-Chih Chen, Kuan-Chieh Huang	37
Multi-Agent and Bayesian Network Applied in Transformer Faults Diagnosis Wen-Qing Zhao, Sheng-Long Zhang, Dong-Xiao Niu	43
Research on Comprehensive Evaluation of Power Flow in Complicated Power Networks Hui-Qiong Deng, Ke-Jun Sun, Shuai Wang	47

Research on Limit Power Flow State for Cascading Overload in Power Network	
Hui-Qiong Deng, Ke-Ju Sun, Li-Hua Sun, Shu-Ai Wang.....	52
Research on Main Stream Temperature Control System in Power Plant Based on CMAC Neural Network and the Single-Neuron PID Controller with Quadratic Index	
Yang Xue, Zhen-Jie Yan.....	56
Simulation Techniques on Complex System of Mission Driving Material Support	
De-Jun Mao, Qing-Min Li, Ying-Wu Peng.....	61
Study on the Index Based Prevention Control Strategies for Cascading Failures in Complicated Power Grids	
Hui-Qiong Deng, Ke-Jun Sun, Li-Hua Sun.....	67
The Analyse of Critical Node and Link in Robust C2 Information Exchange Structure for Mission	
Shan Yang, Zhong Liu, Liang Mu, Bao-Xin Xiu, Jin-Cai Huang.....	72
The Design of Energy-Saving Filtering Mechanism for Sensor Networks	
Ru Huang, Guang-Hui Xu.....	79
The Reverse Logistics Network Design of Drugs	
Zi-Kui Lin, Lian-Lian Gao, Xuan Guo.....	86

Complex Systems Optimization and Application

Methods to Construct Several Kinds of Concept Lattices	
Ling Wei, Sheng-Nan Wang, Wei Zhao.....	91
Minimum-Energy Multi-Wavelets Tight Frames Associated with Two Scaling Functions	
Qian Liang, Ping Zhao.....	97
New Iterative Schemes for Equilibrium Problems and Fixed Point Problems of Nonspreading Mappings and Nonexpansive Mappings	
Wei Li, Li-Ling Duan.....	102
Ordering Method of Interval Numbers Based on Synthesizing Effect	
Fa-Chao Li, Jing Li.....	108
The Least-Squares Solutions of the Some Matrix Equation	
Yan-Ping Sheng, Yi-Hen Yan, Ru Tian.....	113
The Optimal Approximation Solution Associated with a Nonnegative Definite Constraint Matrix Equation	
Dong-Xiu Xie, Juan Zeng.....	117
The Relationship between Prorerty-Oriented Concept Lattice and Partition	
Ling Wei, Hui-Yan Hong, Wei Zhao.....	122
Topological Simplification of Planar Flow Field Based on Physical Feature	
Bo Qin, Bao-Mei Pei, Bing Li, Zhan-Bin Wu.....	128

Computational Intelligence, Machine Learning and

Multimedia Information Retrieval

2-Stage Instance Selection Algorithm for KNN Based on Nearest Unlike Neighbors	
Chun-Ru Dong, Patrick P. K. Chan, Wing W. Y. Ng, Daniel S. Yeung.....	134
A Comparative Research on Noise Resistance for Two Heuristic Algorithms	
Bo-Jun Xie, Ning Zhou, Tao Wang,.....	141
A Generalized Model of Covering Rough Sets and Its Application in Medical Diagnosis	
Yan Li, Tao Feng, Shao-Pu Zhang, Zhan-Wen Li.....	145
A Mapping between Covering Approximation Spaces	
Chang-Zhong Wang, Wen-Ju Du.....	151
A New Instance Selection Algorithm Based on Contribution for Nearest Neighbour Classification	
Yong-Hua Cai, Bo Wu, Yu-Lin He, Ye Zhang.....	155

A Survey on Active Learning Strategy	
Li-Li Sun, Xi-Zhao Wang	161
Adapting Relational Logic Models Using Unlabeled Data	
Ki Chan, Tak-Lam Wong, Wai Lam	167
Adding Choquet Integral to Case-Based Reasoning with Incomplete Data	
Shi-Hong Yue, Wei-Qing Li, Jing Zhao, Xian Zhao	173
Apply Randomization in KNN to Make the Adversary Harder to Attack the Classifier	
Hui Yu, Patrick P. K. Chan, Wing W. Y. Ng, Daniel S. Yeung	179
Convergence Theorems of the Steepest Descent Method for Accretive Mappings	
Ding-Ping Wu, Jin-Wei Shi, Chun-Yang Zheng	184
Design and Practice of Learning Activity in Online Teaching	
Xiao-Li Zhang, Miao Wang, Jing Liu	189
Discretization of Continuous-Valued Attributes in Decision Tree Generation	
Wen-Liang Li, Rui-Hua Yu, Xi-Zhao Wang	194
Dissimilarity Measure of Logical Expressions	
Wei-Feng Zhang, Zeng-Chang Qin	199
Distributed Agent System for Behavior Pattern Recognition	
Chi Zhang, William A. Gruver	204
Ensemble Empirical Mode Decomposition Based ECG Noise Filtering Method	
Kang-Ming Chang	210
Extend Point Descriptors for Line, Curve and Region Matching	
Hong-Min Liu, Zhi-Heng Wang, Chao Deng	214
Feature Weighting Based on L-Gem	
Qian-Cheng Wang, Wing W. Y. Ng, Patrick P. K. Chan, Daniel S. Yeung	220
Gaussian Processes in Inverse Reinforcement Learning	
Zhuo-Jun Jin, Hui Qian, Miao-Liang Zhu	225
Goodness-of-Fit Analysis for Uniformity in a Bounded Solid Region	
Yan Su, Hui-Feng Shi	231
Improving Markov Logic Network Learning Using Unlabeled Data	
Tak-Lam Wong, Kai-On Chow, Fu Lee Wang, Philip M. Tsang	236
Learning Large Margin Nearest Neighbor Classifiers Via Cutting Plane Algorithm	
Xiang-Yun Qing, Peng Ding, Xing-Yu Wang	241
Multiple Nearest Neighbor Classifiers System Based on Feature Perturbation by Mutual Information	
Wang-Li Juan	247
Noisy Univariate Marginal Distribution Algorithm and Its Mathematical Model	
Yi-Bo Yao, Qing-Sheng Ren, Bo Yuan	252
Optimization Matching Algorithm Based on Improved Harris and SIFT	
Jie Zhao, Li-Juan Xue, Guo-Zun Men	258
Optimization of Bagging Classifiers Based on SBCB Algorithm	
Xiao-Dong Zeng, Sam Chao, Fai Wong	262
Part-Based Human Gait Identification under Clothing and Carrying Condition Variations	
Ning Li, Yi Xu, Xiao-Kang Yang	268
Pool-Based Active Learning Based on Incremental Decision Tree	
Shuo Wang, Jian-Jian Wang, Xiang-Hui Gao, Xue-Zheng Wang	274
Reductions in Inconsistent Decision Systems Based on Dominance Relations	
Yan Li, Na-Xin Sun, Jin Zhao	279
Research on Human Activity Recognition Based on Active Learning	
Rong Liu, Ting Chen, Lu Huang	285
Sample Selection with Rough Set	
De-Gang Chen, Xiao Zhang, E. C. C. Tsang, Yon-Gping Yang	291
Self-Adaptive Fuzzification in Fuzzy Decision Tree Induction	
Xiao-Dong Dai, Lin-Qing Gao, Chun-Ru Dong	296

Some Equivalent Conditions on Convergence in Uncertain Measure	
Yang Xia, Jian-Rong Wu	302
The Application of Decision Tree in Chinese Email Classification	
Hao Chen, Yan Zhan, Yan Li	305
The Comparative Study of Different Bayesian Classifier Models	
Yong-Hua Cai	309
The Key Theorem of Learning Theory Based on the Rough Fuzzy Samples	
Xiao-Li Wang, Da-Zeng Tian, Shu Huang.....	314
The Research of Chinese Chess Based on Database with Self Learning	
Yan-Fang Fan, Xue-Jie Bai, Rui-Ying Liu, Sheng Xing.....	319
Using Correlation Coefficient Series to Find the Pattern of the Correlation Evolvement	
Zhu Yu, Zhang Ying, Wen-Yi Chai	323
Using Mutual Information for Fuzzy Decision Tree Generation	
Hua Li, Gui-Wen Lv, Su-Juan Zhang, Zhi-Fang Guo	327

Data Fusion and Ensemble Methods

A Comparative Study of Four Fuzzy Integrals for Classifier Fusion	
Hui-Min Feng, Xue-Fei Li, Jun-Fen Chen.....	332
A Double Level Fusion Architecture Based Intelligence Algorithms for Lumber Drying Parameters Detection System	
Yuan-Ze Liu, Jia-Wei Zhang, Ming-Bao Li.....	339
A Hybrid Classification Approach to Improving Location Accuracy in a Bluetooth-Based Room Localisation System	
Yi-Min Guo, Sheng-Yi Pan, Hai-Ying Wang, Hui-Ru Zheng.....	345
A New Fusion Scheme for Multi-Focus Images Based on Dynamic Salient Weights on Discriminative Edge Points	
Cheng-I Chen, Phen-Lan Lin, Po-Whei Huang.....	351
A Novel Approach on Control Simulation Using Neural Network Ensemble	
Bo Peng, Patrick P. K. Chan, Wing W. Y. Ng, Daniel S. Yeung.....	357
A Spatial-Temporal Fusion Algorithm Based Support Degree and Self-Adaptive Weighted Theory for Multi-Sensor	
Yuan-Ze Liu, Jia-Wei Zhang, Ming-Bao Li.....	363
Adaptive Mutation Particle Filter Based on Diversity Guidance	
Jin-Xia Yu, Yong-Li Tang, Wen-Jing Liu.....	369
Classifier Fusion of Improved Laplacianfaces	
Zeng-Shun Zhao, Ji-Zhen Wang, Qing-Ji Tian, Jian-Ming Zhou.....	375
Comparison of Subsampling Techniques for Random Subspace Ensembles	
Santhosh Pathical, Gursel Serpen.....	380
Research on Intelligent Fault Diagnosis Method for Complex Equipment Based on Decision-Level Fusion	
Chao Zhang, Zhuan-Zhao Yang, Zhen-Bao Liu, Dong Chen	386
Trademark Classification by Shape Using Ensemble of RBFNNs	
Wei-Wei Lai, Wing W. Y. Ng, Patrick P. K. Chan, Daniel S. Yeung.....	391

Data Mining and Knowledge Discovery

A Sample Selection Algorithm Based on Maximum Entropy and Contribution	
Ning Zhang, Tao Xiao	397
An Algorithm of Locating Order Mining Based on Sequence Number	
Gang Fang, Hong Ying, Jiang Xiong, Yong-Jian Zhao.....	403
Analysis and Optimization of Fast Failure Detection and Failover for HA Cluster-Based Systems	
Yang Liu, Jie-Bin Xu.....	408
Chinese Question Classification Based on Mining Association Rules	
Yong-Le Sun.....	413

Cluster Analysis Method and Near-Infrared Spectroscopy Applied to the Identification of Food	
Hong-Lian Li, Xiao-Ting Li, Zhi-Lei Zhao, Yan-Ping Pang.....	417
Data Mining in Ditrubuted Data Environment	
Bin Liu, Shu-Gui Cao, Xiao-Li Jia, Zhao-Hua Zhi.....	421
Data Mining Model in Analyzing Portuguese Studies As the Second Language Acquisition	
Sam Chao, Fai Wong, Custódio Cavaco Martins.....	427
Data Mining Process Model for Marketing and CRM	
Ding Pan.....	433
Extracting Informative Genes from Unprocessed Microarray Data	
Dong-Ling Tong.....	439
Fast Discovery of Frequent Closed Sequential Patterns Based on Positional Data	
Guo-Yan Huang, Fei Yang, Chang-Zhen Hu, Jia-Dong Ren.....	444
Knowledge Mining of Innovation Based on a Master'S Degree Thesis Database	
Chen-Yang Li.....	450
Mining Frequent Itemsets Based on Projection Array	
Hai-Tao He, Hai-Yan Cao, Rui-Xia Yao, Jia-Dong Ren, Chang-Zhen Hu.....	454
Ontology Mapping Based on Structures and Instances	
Cheng Zheng, Ya-Ping Shen, Lin Mei.....	460
Research on Client Behavior Pattern Recognition System Based on Web Log Mining	
Wen-Hai Gao.....	466
Web Log Data Clustering for a Multi-Agent Recommendation System	
Joao C. Xavier-Junior, Alex A. Freitas , Anne M. P. Canuto , Luiz M. G. Goncalves	471

Feature Selection and Manifold Learning

A Comparative Study of the Feature Selection Influence on Diagnosis in Traditional Chinese Medicine	
Hui-Yan Wang.....	477
A Heuristic Method to Attribute Reduction for Concept Lattice	
Jun-Hong Wang, Ji-Ye Liang, Yu-Hua Qian.....	483
An Improved Approach to Feature Selection	
Dong-Wen Zhang, Peng Wang, Ji-Qing Qiu, Yan Jiang.....	488
Combining Feature Ranking with PCA: an Application to Gait Analysis	
Mingjing Yang, Hui-Ru Zheng, Hai-Ying Wang, Sally McClean, Nigel Harris.....	494
Feature Selection for Blind Steganalysis Using Localized Generalization Error Model	
Zhi-Min He, Wing W.Y. Ng, Patrick P.K. Chan, Daniel S. Yeung.....	500
Feature Selection via Minimizing Nearest Neighbor Classification Error	
Peng-Fei Zhu, Tian-Hang Meng, Yun-Long Zhao, Rui-Xian Ma, Qing-Hua Hu.....	506
Harris Feature Vector Descriptor	
Xu-Guang Wang, Jie Su, Hai-Yan Cheng.....	512
Hybrid Feature Selection Algorithm Based on Dynamic Weighted Ant Colony Algorithm	
Shang-Hua Xiong, Ji-Yi Wang, Huang Lin.....	518
Protecting Privacy in Case Based Reasoning by Disordered PCA on One Class Data	
Wei Lu, Tian-Rong Zhong, Xun Liao, Rui Wu.....	523
Semi_Fisher Score: a Semi-Supervised Method for Feature Selection	
Ming Yang, Yin-Juan Chen, Gen-Lin Ji.....	527

Fuzzy Measures & Fuzzy Integrals

A Research on Evaluation of Written Productive Vocabulary Based on Sugeno Measure	
Tian Dong, Wei-Xuan Shi, Yao-Hua Huang.....	533

N-Dimensional Generalized Fuzzy Integrals	
De-Li Zhang, Cai-Mei Guo	537
Rough Set Model Based on Fuzzy Measure	
Fa-Chao Li, Li-Na An, Fei Guan	541
Some Important Inequalities and Their Application on Sugeno Measure Space	
Jing-Feng Tian	547
'Cwj qt 'Kpf gz	

2010 International Conference on Machine Learning and Cybernetics

(ICMLC 2010)

**Qingdao, China
11 – 14 July 2010**

**Volume 2
Pages 552-1058**



IEEE Catalog Number: CFP10523-PRT
ISBN: 978-1-4244-6526-2

Contents

Greetings from the General Chairs	I
Greetings from the Program Committee Chairs and Co-Chairs	II
Organizing Committee	III
Organizing Committee of IWWIP	V
Program Committee	VII
Program Committee of IWWIP	IX
List of Reviewers	X
List of Reviewers for IWWIP	XII

Contributed Papers

Fuzzy Set Theories and Methods

A Comparative Study of Belief and Plausibility Reducts in Information Systems with Fuzzy Decisions Wei-Zhi Wu	552
Expectation Formulas for Reduced Fuzzy Variables Ying Liu, Yan-Ju Chen	558
Fcm Clustering Algorithm for T-S Fuzzy Model Identification Pu Han, Jian-Zhong Shi, Dong-Feng Wang, Song-Ming Jiao	563
Fuzzy Approximate Solution of General Fully Fuzzy Linear Systems Based on GLR-Fuzzy Numbers Zeng-Tai Gong, Kun Liu	567
Membership Based on Combining Cluster Center with Affinity in FSVR and Its Application in Soft Sensor Modeling Zhen-Zhen Yang, Lei Li, Yong-Peng Yang	571
Numerical Characteristics for Average Value of Fuzzy Variables Chun-Qin Zhang, Ying Liu, Peng Wang	576
On Intuitionistic Fuzzy Rough Set Algebras You-Hong Xu, Wei-Zhi Wu	581
On The Fuzzy Generalization of the Dempster-Shafer Theory of Evidence E. C. C. Tsang, De-Gang Chen	587
Research on Trust Evaluation of Secure Bootstrap in Trusted Computing Based on Fuzzy Set Theory Li-Hua Fu, Dan Wang	592
Undetermined Coefficients Method for Solving Semi-Fuzzy Matrix Equations Xiao-Bin Guo, Zeng-Tai Gong	596

Fuzzy Systems

An Applied Research of the Multi-Level Fuzzy Evaluation Method in the Taxi Passenger Satisfaction Evaluation Peng-Fei Shang, Li-Hong Ma, Tie-Ke Li	601
Analytical Structures of Fuzzy Controller under Different Fuzzy Membership Degrees Shi-Hong Yue, Jing Zhao, Xian Zhao, Wei-Qing Li	607
Application of Integrated Fuzzy Comprehensive Appraisal in Government Websites Yan-Li Lu, Shu-Gui Cao, Tao Wang	613
Enterprise Financial Risk Evaluation Research Based on Fuzzy Mathematics Ya-Ran Su, Yan-Ping Nie , Xi-Xian Niu	619
Fault-Tolerant Control Design for a Class of T-S Fuzzy Systems with Time Delays and Sensor Faults Ji-Qing Qiu, Mi-Feng Ren, Duo-Ming Xi, Yan-Chun Zhao, Yu-Ming Guo, Xiao-Dan Zhu	624
Fuzzy Transportation Expected Value Model with Credibility Constraint Guo-Qiang Yuan, Chun-Ping Li, Li Zhao	630
Fuzzy-Based Dynamic Scheduling System for Health Examination Ruey-Kei Chiu, Yu-Chen Yeh	636
Control for Fuzzy Descriptor Systems with Time-Varying Delay and Parameter Uncertainties Chang-Zhong Gong, Jin-Sheng Shao	642
Sugeno Rough Set Model under the Fuzzy Relation Shu-Xiang Wei, Ming-Hu Ha, Yao-Feng Liu	649
The Application of Fuzzy System Method to the Cost Estimation of Construction Works Song-Sen Yang, Xu Jing	654

Image Processing and Pattern Recognition

Multi-Race Face Detection Based on Skin Color and Eyes Yi-Ding Wang, Huan He	659
A New Method for Color Image Segmentation Based on FSVM Lei Li, Jin-Yan Li, Wen-Yan Ding	664
A Novel Gradient Synthesis-Based Illumination Formalization Method for Face Recognition under Varying Lighting Conditions Li Zhao, Patrick P. K. Chan, Wing W. Y. Ng, Daniel S. Yeung	669
Access Control by RFID and Face Recognition Based on Neural Network Dong-Liang Wu, Wing W.Y. Ng, Patrick P. K. Chan, Hai-Lan Ding, Bing-Zhong Jing, Daniel S. Yeung	675
An Approach to the Interpretation of Aerial Image Ling-Ling Li, Tai-Song Jin, Hua Shi, Cui-Hua Li	681
An Improving Algorithm for Generating Real Sense Terrain and Parameter Analysis Based on Fractal Hong-Rui Wang, Wei-Lei Chen, Xiu-Ling Liu, Bin Dong	686
An Integration of Top-Down and Bottom-Up Visual Attention for Categorization of Natural Scene Images Xin Zhang, Bing Wang, Miao Wang, Bin Liu	692
Anti-Spoofing System for RFID Access Control Combining with Face Recognition Bing-Zhong Jing, Patrick P. K. Chan, Wing W. Y. Ng, Daniel S. Yeung	698
Application of Self Adapts to RGB Threshold Value for Robot Soccer Wan-Ming Liu, Li-Hua Wang, Zhen-Feng Yang	704
Bag-Of-Words Image Representation Based on Classified Vector Quantization Xu Yang, De Xu, Ying-Jian Qi	708
Complex Sport Image Classification Using Spatial Color and Posture Context Descriptors and Neural Classifiers P. Panakarn, S. Phimoltares, C. Lursinsap	713
Content-Based Image Retrieval Using Color Moment and Gabor Texture Feature Zhi-Chun Huang, Patrick P. K. Chan, Wing W. Y. Ng, Daniel S. Yeung	719

Face Recognition Based on 2DPCA and Fuzzy-Rough Technique	
Jun-Hai Zhai, Chen-Yan Bai, Su-Fang Zhang	725
Forecast Hail by Analysis Radar Image	
Wen-Xia Xu, Guo-Dong Li, Fei-Jia Liao	730
Fuzzy Contrast Enhancement for Remote Sensing Image Based on Fuzzy Set in Nonsampled Contourlet Domain	
Guo-Zun Men, Jian-Lei Yang, Jie Zhao.....	735
Image Classification Using Bootstrap Likelihood Ratio Method	
S.C. Chuang, W. L. Hung	741
Image Thresholding Based on Random Spatial Sampling and Majority Voting	
Yi Hong, Han-Li Wang, Sam Kwong	746
Imagery Processing of Friction Welding Supersonic C Scanned Picture Based on Mathematics	
Shape and Image Division	
Xin Yin, Qi-Lin Li, Dong-Hao Qin, Yuan-Peng Liu.....	752
Learning Spectral Graph Mapping for Classification	
Xiao-Hua Xu, Ping He, Ling Chen.....	758
L-Gem Based Rbfnn for News Anchorperson Detection with Dominant Color Descriptor	
Wei Xiao, Wing W. Y. Ng, Patrick P.K. Chan, Daniel S. Yeung	763
Long Digital Straight Segments for Fingerprint Matching	
Xiu-Bao Jiang, Long Zhou, Ming-Ming Gong, Xin-Ge You	769
Medical Image Registration Based on Feature and Mutual Information	
Jie Zhao, Xue-Mei Gao, Guo-Zun Men.....	775
MSER Based Shadow Detection in High Resolution Remote Sensing Image	
Hai-Yan Yu, Jun-Ge Sun, Li-Ning Liu, Yun-Hong Wang, Yi-Ding Wang.....	780
Nonseparable Wavelet Domain Bpca for Face Recognition	
Qin Zhou, Long Zhou, Xin-Ge You.....	784
Optimum Capacity Additive and Multiplicative Image Watermarking and Performance Comparisons	
Li Zhang, Liang Tang, Kun-Hua Zhang, De-Liang Lian	790
Palmprint Recognition Using Gabor Magnitude Code	
Zhen-Hua Guo, Guang-Ming Lu	796
Saliency Distinguishing and Applications to Semantics Extraction and Retrieval of Natural Image	
Bing Wang, Xin Zhang, Miao Wang, Pu Zhao	802
Shape-Based Image Retrieval of Chinese Paper-Cutting Using RBFNN with Invariant Moment Timothy	
Timothy Tian-Ming Zheng, Wing W. Y. Ng, Xu-Sheng Huang, Shi-Ting Yang, Patrick P. K. Chan, Weiwei Lai, Daniel S. Yeung.....	808
The Application of Grey Model in 3D Model Blind Watermark	
Ying-Jian Qi, Ying Li, Lei-Fan Yan, Yi-Yun Yuan, Qing Li	815
The Investigation of 3D Scene Reconstruction Algorithm Based on Laser Scan Data	
Yao-Quan Yang, Qi Xiao, Yan-Hui Song.....	819
The Performance Study of Facial Expression Recognition via Sparse Representation	
Zhe-Wei Wang, Ming-Wei Huang, Zi-Lu Ying.....	824
The Reconstruction of High Resolution Image Based on Compressed Sensing	
Yan Zhou, Yong Zhong, Dong Wang.....	828
The Research on Identification of Wool or Cashmere Fibre Based on the Digital Image	
Shu-Yuan Shang, Ya-Xia Liu, Hai-Yan Yi, Yao-Wen Zhang	833

Information Security

A Discuss of Computer Security Strategy Models	
Ming-Xin Yang, Li-Na Yuan, Zhi-Xia Yang	839
Construction of Cartesian Authentication Codes Over	
You Gao, Chun-Xiao Zhang	843

Constructions of Quantum Bch Codes Based on Finite Fields of Odd Characteristic	
You Gao, Yu-Ting Xiao, Ya-Yuan Tao	849
Detecting Trojan Horses Based on System Behavior Using Machine Learning Method	
Yu-Feng Liu, Li-Wei Zhang, Jian Liang, Sheng Qu, Zhi-Qiang Ni	855
Formal Security Analysis of Automated Trust Negotiation	
Xin-Xin Liu, Shao-Hua Tang, Kai Wei	861
Non-Binary Quantum Codes Constructed from Classical BCH Codes	
You Gao, Ya-Yuan Tao	867

Intelligent Control System

Control of Arbitrary Periodic Orbit of Logistic Map	
Xiao-Ping Zong, Jun Geng, Jun-Xiu Huo	875
Nonlinear Feed Forward Pitch Controller for Wind Turbine Based on Rotor's Aerodynamic Characteristic	
Guo Peng	879
An Adaptive PID Controller	
Jen-Yang Chen, Chuan-Hsi Liu, Chang-Wei Fan, Haw-Yun Shin, Mao-Hsu Yen	884
Criteria for Robust Stability of Discrete-Time Dynamic Interval Systems with Multiple Time-Delays	
Jin-Fang Han, Hui-Zhu Tian, Zhi-Yong Meng	890
Delay-Dependent L_2-L_∞ Filter Design for Nonlinear Stochastic Uncertain Time-Delay Systems	
Ji-Qing Qiu, Yan-Chun Zhao, Shao-Cong Guo, Xiao-Dan Zhu, Xiao-Ming Du, Qing Li	895
Design of Intelligent Controller for Air-Conditioning Unit Based on Fuzzy RBF-NN	
Jin-Qiu Huang	901
Development of a Distributed Control System for PLC-Based Applications	
Li-Ling Wang, Hong-Ying Wei	906
Global Robust Sliding Mode Control for a Class of Uncertain Time-Delay Systems	
Hai-Ping Pang, Lu-Ping Wang	910
Globally Exponentially Attractive Set and Synchronization Controlling of a New Chaotic System	
Gui-He Wang, Ji-Gui Jian	916
Integral Control of Three-Phase Pwm Rectifier-Inverter Based on Euler-Lagrangian Model	
Guang-Ye Li, Jian-Ru Wan, Chen-Hu Yuan, Hai-Liang Zhou, Qing-Jun Ruan	922
Modeling and Simulation of Active-Disturbance-Rejection Controller with Simulink	
Ping Jiang, Jing-Yu Hao, Xiao-Ping Zong, Pei-Guang Wang	927
Non-Fragile Control for a Class of Networked Switched Fuzzy Time-Delay Systems	
Yi Liu, Li-Ying Sun	932
Non-Fragile Fault-Tolerant Control for a Class of Nonlinear Systems	
Ji-Qing Qiu, Yu-Ming Guo, Xiao-Ming Du, Yan-Chun Zhao, Xiao-Dan Zhu, Duo-Ming Xi	937
Optimal Sliding Mode Output Tracking Control for Linear Systems with Uncertainties	
Hai-Ping Pang, Qing Yang	942
Optimized Control for Ball Mill Powder Making	
Ling Lv, Peng Liu, Zhi-Fang Wang, Jing-Tao Xie	947
Power System Transmission Section Security Protection Control Program	
Gang Li, Zeng-Ping Wang, Jian-Wen Ren, Xu-Feng Zhen	951
Research of Automated Assembly Line Control System Based on Modularization	
Jian-Feng Chen, Wei-Wen Wu, Zhi-Yan Wang	956
Research on Control Method of Convert Channel Lattice- Based	
Zhi-Chen Tong, Ming-Xin Yang, Qing-Heng Li	961
Robot Force Position Control without Impact: Method and Application	
Jin-Zhuang Xiao, Xiao-Yan Li, Hong-Rui Wang, Li Ma	965
Robust Guaranteed Cost Control of Nonlinear Uncertain Time-Varying Delay Systems	
Ji-Qing Qiu, Yan-Jun Wang, Xiao-Ming Du, Yan-Chun Zhao, Xiao-Dan Zhu	969

Robust L_1/H^∞ Control of Linear Markovian Jump Systems	
Yan-Hui Li, Bei-Yan Jiang, Fei Li, Bin Zhou	975
Simple Adaptive Control for SISO Nonlinear Systems Using Neural Network Based on Genetic Algorithm	
Shi-Qi An, Tian Lu, Yu-Ju Ma	981
Singleton Arc Consistency Based on Failure-First Principle	
Zhan-Shan Li, Shi-Mei Xing, Feng-Jie Yang, Hui-Ying Du	987
States Feedback Control for Liu Chaotic System	
Xiao-Ping Zong, Zi-Yu Diao	992
Study of Two-Cell Immune Feedback Control for Water Level of Boiler Drum Based on Gray Prediction	
Dao-Gang Peng, Hao Zhang, Cong-Hua Huang, Fei Xia, Hui Li	996
Using a Fuzzy Control Model to Navigate a Mobile Robot	
Lin-Sen Pon, Chih-Wei Ko, Kou-Cheng Hsu	1001

Intelligent Ground Transportation System

Application of Data Warehouse Technique in Intelligent Vehicle Monitoring System	
Jian-Xia Wang, Mei-Yan Pang, He Zhang, Dan Zhang	1007
Application of Fuzzy Comprehensive Evaluation on Urban Passenger Transportation System	
Xin-Rui Zhang, Bao-Zhen Guo	1011
Risk Assessment Model for the Railway Reconstruction Project in Taiwan	
Shih-Tong Lu, Yao-Chen Kuo, Shih-Heng Yu	1017
Study on Railway Freight Volume Based on Mixed Neural Network Technology	
Yong-Chun Xu, Zhen-Fang Han, Jin-Yu Guan	1023
Traffic Volume Prediction Based on Improved Grey Self-Adaptable Prediction Formula	
Na Xu, Xin-Rui Zhang	1027

Intelligent Mobile Collaboration Systems and Services

A Novel Energy Efficient Routing Algorithm for Wireless Sensor Networks	
Yi-Ping Chen, Yu-Zhong Chen	1031
The Data Sampling Transmission System Based on TMS320F2812	
Xiu-Ling Liu, Dong-Yu Wang, Shi-Shuo Zhao	1036
Wireless Sensor Networks for Home Appliance Energy Management Based on Zigbee Technology	
Jian-Jian Wang, Shuo Wang	1041

Intelligent Systems

A Study of Two Data Grid Interpolation Algorithm Based on Surfer Software	
Shu-Guang Liu, Xi Chen, Shu-Hong Peng, Ying-Lian Ma, Jing Qian	1045
Application of M/G/1/N in Solid Garage	
Hai-Zhen Sun, Bao-You Liu, Hua Li	1050
Multi-Variable Grey Forecast Based on Topsis Method	
Hong-Qi Hui, Lei Zhou	1054

2010 International Conference on Machine Learning and Cybernetics

(ICMLC 2010)

**Qingdao, China
11 – 14 July 2010**

**Volume 3
Pages 1059-1606**



**IEEE Catalog Number: CFP10523-PRT
ISBN: 978-1-4244-6526-2**

Contents

Greetings from the General Chairs	I
Greetings from the Program Committee Chairs and Co-Chairs	II
Organizing Committee	III
Organizing Committee of IWWIP	V
Program Committee	VII
Program Committee of IWWIP	IX
List of Reviewers	X
List of Reviewers for IWWIP	XII

Contributed Papers

Intelligent Systems with Applications

Mechanical Fault Diagnosis for L-V Circuit Breakers Based on Energy Spectrum Entropy of Wavelet Packet and Naive Bayesian Classifier Jiao-Min Liu, Jian-Li Zhao, Li Li, Ya-Ning Wang	1059
A Spam Filtering Technique Based on Feature Fingerprint Wen-Xuan Shi, Ya-Lou Huang	1065
An Designing of Oxygen Saturation Detection Module Based on Zigbee Technology Hong-Rui Wang, Yu-Ming Liu, Chao Gao, Xiu-Ling Liu	1071
Application of Hybrid Logic in Inference of Knowware System Sio-Long Lo, Li-Ya Ding, Yuan Chen	1078
Applying Fuzzy Art in Medical Diagnosis of Cancers Jen-Ing G. Hwang, Chih-En Liu, Lori Sokoll, Bao-Ling Adam	1084
Automatically Identifying Technology in Malware Based on Mass Samples Jian-Min Chen, Yu-Meng Feng, Yin-Ming Mei	1090
Data Mining-Based Modeling and Application in the Energy-Saving Analysis of Large Coal-Fired Power Units Yong-Ping Yang, Ning-Ling Wang, Zhi-Wei Zhang, De-Gang Chen	1095
Design of a Soil Erosion Prediction Information System for Daqinghe Basin Ying-Min Chu, Ya-Nan Fu, Zai-Jian Yuan, Lei Wang	1101
Determinants of Intra-Firm Sourcing by Multinationals in China Jun-Yan Hu, Xia Fan	1105

Estimate Vigilance Level in Driving Simulation Based on Sparse Representation	
Hong-Jun Liu, Hong-Bin Yu, Qing-Sheng Ren, Hong-Tao Lu	1111
Influence of Pretreating Methods on the Score Result of Principal Component Analysis of Tea	
Yan-Wei Zhang, Xiao-Wei Li, Rong-Xiang Zhang, Shi-Hong Zhang, Lian-Shui Zhang	1116
Land Use/Cover Change and Landscape Fragmentation Analysis in an Urbanizing Area in Xinjiang	
Jing Qian, Qi-Ming Zhou, Ying Yuan, Shu-Hong Peng, Ying-Lian Ma	1120
Multi-Target Recognition Used in Airpoty Fiber Fence Warning System	
Li-Hui Jiang, Xiang-Ming Liu, Feng Zhang	1126
Posture Recognition Invariant to Background, Cloth Textures, Body Size, and Camera Distance Using Morphological Geometry	
Piyarat Silapasuphakornwong, Suphakant Phimoltares, Chidchanok Lursinsap, Aran Hansuebsai	1130
Prediction of Annual Precipitation Based on Fuzzy and Grey Markov Process	
Li-Li Sheng, Wu-Qun Cheng, Hui Xia, Xian-Bing Wu, Xi-Ping Zhang	1136
Revenue Sharing in the Closed-Loop Supply Chain: A New Cooperative Game Theoretic Approach	
Wei-Min Ma, Zhang Zhao	1141
RFID Indoor Positioning Using RBFNN with L-GEM	
Hai-Lan Ding, Wing W. Y. Ng, Patrick P. K. Chan, Dong-Liang Wu, Xiao-Ling Chen, Daniel S. Yeung	1147
RFID Reader Deployment Using RBFNN with L-GEM	
Hai-Lan Ding, Wing W. Y. Ng, Patrick P. K. Chan, Daniel S. Yeung, Dong-Liang Wu	1153
Soil Fertility Grading With Bayesian Network Transfer Learning	
Hai-Yang Jia, Ju-An Chen, He-Long Yu, Da-You Liu	1159
The Assessment of Automatic Weather Station Operating Quality Based on Fuzzy AHP	
Jian-Ming Li, Lei Han, Shu-Yong Zhen, Lun-Tao Yao	1164
The Research of Three-Dimensional Seamless Jersey's Resistant of Wind Resistance	
Yu-Xiu Yan, Ming Wang, Zi-Min Jin, Xiu-Juan Hu, Jian-Wei Tao	1169
The Uncertainty Evaluation of MID-Infrared Spectra for Tea	
Lian-Shui Zhang, Shi-Hong Zhang, Xiao-Wei Li, Hong-Lian Li, Yan-Wei Zhang	1173
Using EEG to Detect Drivers' Emotion with Bayesian Networks	
Xin-An Fan, Lu-Zheng Bi, Zhi-Long Chen	1177
Web Services -Based and Multi-Agent Information Platform	
Yu-Qian Xue, Ai-Xia Chen, Zhan-Kun Zhao, Xin-Wen Wang	1182

Intelligent Techniques Applications in Engineering

A Load Balancing Algorithm for Homogeneous Multiprocessor System	
Xin-Liang Tang, Peng Liu, Zhen-Zhou Wang, Bin Liu	1186
An In-Process Adaptive Control of Surface Roughness in End Milling Operations	
Potsang B. Huang, Wei-Jung Shiang, Yuan-Tsan Jou, Chuhsien Chang, Chengghieh Ma	1191
Automatic Detect and Match of Led Dies Basing on Position Relations between Adjacent Dies	
Tao Wu, Bin Li, Long-Wen Wang, Yu Huang	1195
L_2-L_∞ Control for Nuclear Reactor Power Control System Based on Lyapunov Functional Method	
Cheng Gong, Min-Jun Peng, Shou-Yu Cheng	1201
Efficient Job-Release Plan Development for Semiconductor Assembly and Testing in GA	
Kung-Jeng Wang, Chun-Chih Chiu, Dah-Chuan Gong	1205
Fuzzy Comprehensive Evaluation of Wearability of 'SIWEAR', Air-Conditioning Fiber, Knitted Fabrics	
Yong-Jiu Zhang, Ai-Fen Feng	1211
Marking Process Analyze in Plate Marking Machine	
Dong Liu	1216
Predictive Model of Fouling Radiant Surface in Boiler	
Yong Wang, Yu Wang	1221

Research of Turbine Generator Unit Fault Diagnosis Method Based on CPN	
Kai Zhang, Hao Zhang, Dao-Gang Peng, Fei Xia	1227
Segmented Compensation Using Compound Iterative Learning Control on 2D System for Linear Motor	
Hang Ma, Song Yang, Ying-Shun Li, Chun-Mei Liu	1233
Study on Control System of a Vapor Condenser of Nuclear Power Plant	
Shou-Yu Cheng, Ruo-Jun Xue, Min-Jun Peng, Cheng Gong, Qiang Zhao	1239
The Application of Artificial Neural Network on Nuclear Energy	
Yun Guo, Cheng Gong, He-Yi Zeng	1244
The Determination of the Complete Gap Function in Different Types of Conical Bearings	
Sheng-Bo Li, Korneev. A. Yu, Hong-Yuan Jiang	1249
The Five Steps Browsing Model on Computer Displays	
Yao-Hung Hsieh, Chiuhsiang Joe Lin, Hsiao-Ching Chen	1252
The Optimization Research of Train Carriage Painting	
Song Cheng, Sang-Yong Park	1258
A Chinese Word Segmentation Algorithm Based on Maximum Entropy	
Li-Yan Zhang, Min Qin, Xue-Mei Zhang, Hong-Xia Ma	1264
An Intelligent Framework of illumination effects elimination for Car License Plate Character Segmentation	
J. G Park	1268
An Improvement of Translation Quality with Adding Key-Words in Parallel Corpus	
Liang Tian, Fai Wong, Sam Chao	1273
Discovering Web Service Operations by Index Tables and Bipartite Graphs	
Ji-Hui Li	1279
Event Entailment Chains Extraction for Text-To-Scene Conversion	
Han-Jing Li, Zhen Li, Xiao-Ping Xue, Tie-Jun Zhao	1284
Fusion of Reverse Hierarchical Alignment for Web-Based English-Chinese Bilingual Dictionary Construction	
Yue-Jie Zhang, Lei Cen, Qing-Xin Wu, Cheng Jin, Tao Zhang	1288
The Application of Data Mining in Online Bookstore	
Lin-Yan Xue, Hong Wang, Shuang Liu, Chao Li	1294
Topic Based Automatic News Recommendation Using Model and Affinity Propagation	
Yong-Hui Wu, Yu-Xin Ding, Xiao-Long Wang, Jun Xu	1299
Using Class-Dependent Projection for Text Categorization	
Li-Fei Chen, Gong-De Guo	1305

Man and Media Management

A Method of Chinese Coreference Resolution Combined Multi-Features in Discourse	
Shu-Min Shi, He-Yan Huang, Rui-Yang Chen	1311
A Study on the Comprehensive Forewarning Evaluation of the Staff Public Relations in an Enterprise Based on Language Value	
Xiao-Juan Zhao, Hai-Ping Ge, Xiao-Lan Zhao	1317
An Empirical Study on Human Resource Capital and the Development of Service Trade of Hebei Province	
Wei-Wei Zhuang, Yu-Fen Liu, Lan Wang	1321
An Empirical Study on the Prediction Model of Postgraduate Education in Hebei Province	
Lan Wang, Wei-Wei Zhuang, Yu-Fen Liu	1327
Analysis and Evaluation of Innovation Efficiency in the National Hi-Tech Zone Based on DEA	
Wei-Li Shi, Qing-Shu Kong, Chuan Sun	1332
Emergency Logistics Based on Inventory Management Method	
Han-Qing Li, Yi-Hong Ru, Xiu-Quan Xu	1338
Evaluation and Analysis on Competitive Power of Innovation Technology Talents in Hebei Province	
Jing-Ru Wu, Na Han	1342

Evaluation on the Performance of Smes: Taking the Smes in Chinese Science Parks as Example	
Jin-Ling Pang, Zhen-Ning Yang	1348
Innovation Environment in Chinese Science Parks: Different From Geographical Distribution and Functional Classification	
Yu-Rong Wang, Zhen-Ning Yang, Jin-Ling Pang	1353
On The Implementation of College Meticulous Management	
Hui Dong, He Sun, Jian-Xun Liu	1358
Research on an Empirical Research Program of University Organizational Performance Assessment	
Chang-Li Wu, Ling Lv, Wei Qi, Yu Zhang	1362
The Evaluation Research of the Regional S&T Popularization Capacity	
Ting Li, Xue-Lai Deng, Zhi-Xiang Li	1368
The Motivation of Enterprises' Moving Into Science Parks: Difference from Enterprises' Size, Characteristic and Industry Classification	
Zhen-Ning Yang, Yu-Rong Wang, Jin-Ling Pang	1373

Marine Intelligent Transportation System

A New Correction Method for Dead Reckoning Navigation System Based on Digital Map	
Yong-Qiang Han, Jia-Bin Chen, Zhi-De Liu, Chun-Lei Song, Dun-Hui Zhao	1378
Adaptive Unscented Kalman Filter for Initial Alignment of Strapdown Inertial Navigation Systems	
Jun-Hou Wang, Jia-Bin Chen	1384

Neural Networks and Support Vector Machines

Sample Selection Based on Maximum Entropy for Support Vector Machines	
Ran Wang, Sam Kwong	1390
A Comparison of Rohs Risk Assessment Using the Logistic Regression Model and Artificial Neural Network Model	
Cheng-Chang Chang, Dah-Chuan Gong	1396
A Growing Architecture Selection for Multilayer Perceptron Neural Network by the L-GEM	
Jin-Cheng Li, Wing W. Y. Ng, Patrick P. K. Chan, Daniel S. Yeung	1402
A Neural Network Based Approach to Detect Influenza Epidemics Using Search Engine Query Data	
Wei Xu, Zhen-Wen Han, Jian Ma	1408
A New Approach to Improving Generalization Ability of Feed-Forward Neural Networks	
Hua Qiang, Gao Yue, Xi-Zhao Wang, Bo-Yi Zhao	1413
An Adaptive Neuromolecular Computing Net Model	
Yo-Hsien Lin, Hao-En Chueh	1420
Application of BP-ANN and LS-SVM to Discrimination of Rice Origin Based on Trace Metals	
Xiao-Ying Niu, Li-Ya Xia, Ting-Xin Wang, Xiao-Yu Zhang	1426
Approximation by Approximate Interpolation Neural Networks with Single Hidden Layer	
Chun-Mei Ding, Yu-Bo Yuan, Fei-Long Cao	1431
Construction of Radial Basis Function Neural Networks via a Minimization of Its Localized Generalization Error	
Daniel S. Yeung, Bin-Bin Sun, Wing W. Y. Ng, Patrick P. K. Chan	1437
Differential Evolution Algorithm Design for Fuzzy Neural Network	
Ming Ma, Yan Sun, Li-Biao Zhang	1443
Fast Optimization of PNN Based on Center Neighbor and KLT	
Li-Pu Qian, Chun-Fang Li, Yan-Ping Zhang	1447
Fuzzy Predictive Control of Multivariable Process Based on Alopex Evolutionary Optimization Algorithm	
Zheng Li	1453
Improved Support Vector Data Description	
Guang-Xin Huang, Hua-Fu Chen, Feng Yin	1459

Multiple Classifier Systems Combined with Localized Generalization Error for Fault Diagnosis of Power Transformers Wei-Chun Chen, Patrick P. K. Chan, Jin-Cheng Li, Bo Peng, Wing W. Y. Ng, Daniel S. Yeung.....	1464
Neural Network Optimization Based on Improved Diploid Genetic Algorithm Ke-Yong Shao, Fei Li, Bei-Yan Jiang, Na Wang, Hong-Yan Zhang, Wen-Cheng Li.....	1470
Prediction of Subcellular Localization Using Maximal-Margin Spherical Support Vector Machine Wei-Ming Chen, I-Lin Wu, Jung-Hsien Chiang, Pei-Yi Hao.....	1476
Radial Basis Function Networks with Adjustable Kernel Shape Parameters I-Cheng Yeh, Xin-Ying Zhang, Chong Wu, Kuan-Chieh Huang.....	1482
Research on Pressurizer Water Level Control of Nuclear Reactor Based on RBF Neural Network and PID Controller Jian-Hua Ye, Jin-Ming Yi, Hua-Yan Ji.....	1486
Sensitivity Analysis of Multilayer Perceptron Based on Elastic Function Chun-Guo Li, Hai-Feng Li, Yu-Fen Zhang, Qun-Feng Zhang.....	1490
Short-Term Load Forecasting Based on Bayesian Neural Networks Learned by Hybrid Monte Carlo Method Hui-Feng Shi, Yan-Xia Lu.....	1494
Study on the Method of Fault Diagnosis in Analog Circuits Based on New Multi-Class SVM Jin-Long An, Zhen-Ping Ma.....	1500
Study on the Solving Method of Electromagnetic Field Forward Problem Based on Support Vector Machine Jin-Long An, Zhen-Ping Ma.....	1505
Support Vector Machine Based on a New Reduced Samples Method Shu-Xia Lu, Jie Meng, Gui-En Cao.....	1510
The Improved Localized Generalization Error Model and Its Applications to Feature Selection for RBFNN Yan-Jun Cui, Jie Li, Yan-Dong Ma.....	1515
Tracking Control for a Class Of Unknown Nonlinear Systems Based on LS-SVM Chun-Li Xie, Cheng Shao, Dan-Dan Zhao.....	1519
Empirical Comparison of Forward and Backward Search Strategies in L-GEM based Feature Selection with RBFNN Yao-Hong Chan, Wing W. Y. Ng, Daniel S. Yeung, Patrick P. K. Chan.....	1524
Weed Identification Method Based on Probabilistic Neural Network in the Corn Seedlings Field Li Chen, Jin-Guo Zhang, Hai-Feng Su, Wei Guo.....	1528

Optimizations Techniques for Real World Intelligent Applications

A Hybrid Route Planning Algorithm of Single Aerial Vehicle Attacking Multiple Targets Quan Luo, Zhong Liu, Shi-Dong Qiao.....	1532
A Kind of Utility Function in Adaptive Dynamic Programming for Inverted Pendulum Control Zhen-Yu Wang, Ya-Ping Dai, Yong-Wei Li, Yuan Yao.....	1538
A New Hierarchical Simultaneous Localization and Mapping Method Based on Local Shape Context of Environment Rong-Hua Luo, Hua-Qing Min, Yan Shao.....	1544
An Evolutionary Algorithm with Sorted Race Mechanism for Global Optimization Xue-Qiang Li, Zhi-Feng Hao, Han Huang.....	1550
Discrete Construction of Voronoi Diagrams for Cross Generators Ye Zhao, Ya-Jing Zhang, Qing-Hong Zhang.....	1556
Hybrid Differential Evolution for Cogeneration Economic Dispatch Problem Chao-Lung Chiang, Chia-An Wang.....	1560
Initialization for Synchronous Sequential Circuits Based on Chaotic Particle Swarm Optimization Yan-Li Hou, Ming Yang, Rui-Mei Zhao, Hua Lian.....	1566
Modeling Concrete Strength Using Genetic Operation Trees I-Cheng Yeh, Che-Hui Lien, Chien-Hua Peng, Li-Chuan Lien.....	1572
Multiple Moving Objects Detection and Tracking Based on Optical Flow in Polar-Log Images Hai-Yan Zhang.....	1577
Scheduling Jobs and Preventive Maintenance on Fuzzy Job Shop Using Genetic Algorithm You-Lian Zheng, Yuan-Xiang Li, De-Ming Lei.....	1583

Study on Auto-Path Planning According to Grade Priority for Sorting Dies	
Tao Wu, Bin Li, Long-Wen Wang, Yu Huang.....	1590
Study on Single and Mixed Fleet Strategy for Single-Depot Vehicle Routing Problem with Backhauls	
Chun-Yu Ren, Xiao-Bo Wang	1596
Synthetically Improved Genetic Algorithm in Stochastic Programming Model in Public Traffic Dispatch System	
Lei Zhou, Hong-Qi Hui, Bin Liu	1602

'Cwj qt 'Kpf gz

2010 International Conference on Machine Learning and Cybernetics

(ICMLC 2010)

**Qingdao, China
11 – 14 July 2010**

**Volume 4
Pages 1607-2187**



**IEEE Catalog Number: CFP10523-PRT
ISBN: 978-1-4244-6526-2**

Contents

Greetings from the General Chairs	I
Greetings from the Program Committee Chairs and Co-Chairs	II
Organizing Committee	III
Organizing Committee of IWWIP	V
Program Committee	VII
Program Committee of IWWIP	IX
List of Reviewers	X
List of Reviewers for IWWIP	XII

Contributed Papers

Science, Engineering and Business Intelligence

Stock Forecasting Using Support Vector Machine Lucas K. C. Lai, James N. K. Liu	1607
A Knowledge-Based Systems Engineering Approach for Confirming Emergent Strategy-Making Quality Ren-Wen Ben, Dah-Chuan Gong, Kevin Meng	1615
A Transmission Line Overload Control Program Based on Wide Area Information Gang Li, Zeng-Ping Wang, Jian-Wen Ren, Xu-Feng Zhen	1621
A Trustworthy Management Approach for Cloud Services QOS Data Qian Tao, Huiyou Chang, Yang Yi, Chunqin Gu	1626
An Inquiry into the Enterprise's Forewarning Index Evaluation Model of The Loss of Talent Based on The Factor-Analysis Method Xiao-Lan Zhao, Xiao-Juan Zhao, Xiu-Min Li	1632
Analysis on the Ecological Equilibrium of Hi-Tech Industrial Clusters Pang Zhou, Wei Qi, Shuang Feng, Chen Wang	1637
Application Framework of Web Service Based on Metadata-Principle and Practice Ming-Sheng Liu, Jian-Hua Li, Ping Song	1642
Case Research on the Localization Development of Small and Medium Multinational Enterprises in China Hao Li, Xin-Quan Ge	1647
Constraints in Environment and Resources during China's Industrial Upgrading Qian Rao, Yan Zhang	1652

Design and Implementation of Intelligent Acquisition and Fast Processing Recording System for IPTV Platform	
Can Yang, Shang-Tao Liang, Xin-Xin Chen, Ye-Wei Chen.....	1656
Evaluation and Analysis of Input-Output Efficiency of Regional Equipment Manufacturing Industry Based on Dea Method	
Guo-Zhen Wang, Jing-Ru Wu, Jing Liu	1661
Evaluation and Analysis to Input-Output Efficiency of High Tech Industry in Hebei Province Based on Dea	
Rong-Ping Li, Jing-Ru Wu, Hui-Dong Cui	1667
Evaluation of Technological Innovation Capability of Small and Medium Industrial Enterprises in Hebei Province	
Rong-Yan Jia, Rong-Ping Li, Hong-Qi Hui	1672
Improvement on Leach by Combining Adaptive ClusterHead Election and Two-Hop Transmission	
Li-Qing Guo, Yi Xie, Chen-Hui Yang, Zheng-Wei Jing	1678
Moving Average Crossovers for Short-Term Equity Investment with L-GEM Based RBFNN	
Gao-Yang Cai, Wing W. Y. Ng, Patrick P. K. Chan, Michael Firth, Daniel S. Yeung	1684
Newspaper Performance Comprehensive Evaluation Based on BSC and AHP	
Xiang-Jun Ji, Na Han	1689
Performance Evaluation Model and Method of Financial Scientific Investment and an Empirical Research	
Dong Shao, Lei Zhou	1693
Production Planning System in Clothing Enterprises Based on Drum-Buffer-Rope Theory	
Xiu-Quan Xu, Yi-Hong Ru, Ling-Feng Liu	1699
Profit Variety for Inventory Decision Changing in Supply Chain under Fuzzy Demand Environment	
Xiao-Bin Wang.....	1704
Research on Coordinating Development Evaluation of Energy- Economy- Environment System of Hebei Province	
Rong-Min Zhou, Guo-Zhen Wang, Jing-Ru Wu.....	1709
Research on Measurement of Regional Knowledge Stock Based on Comprehensive Information Entropy	
Xiao-Feng Wang, Pang Zhou, Wei Qi	1715
Research on the Impact of Outward Foreign Direct Investment on Trade Competitiveness	
Yan Zhang, Guo-Zhen Wang	1720
Study on Resource Space Model of Knowledge in Collaborative Product Development	
Yang-Dong Wu, Li-Fang Wang	1725
Study on Strengthen of High-Tech Enterprises Growth- Evaluation Based on Neural Network System	
Ting-Ting Chang, Ge-Fu Liang, Meng-Jie Sun	1730
The Comparative Analysis and Research on Regional Competitiveness in Hebei Province, Beijing and Tianjin Economic Circle	
Wei Qi, Xiao-Feng Wang, Han Song.....	1736
The Institutional Sources of the Economic Paradigm Changing in China	
Xue-Ning Yao.....	1740

Statistical Classification

A Further Discussion of Structural Risk Minimization Principle on Set-Valued Probability Space	
Ji-Qiang Chen, Chao Wang, Xin-Ai Zhang, Ming-Hu Ha	1745
A Hsc-Based Sample Selection Method for Support Vector Machine	
Qing He, Ning Li, Zhong-Zhi Shi.....	1751
A Novel Serial Crime Prediction Model Based on Bayesian Learning Theory	
Renjie Liao, Xueyao Wang, Lun Li, Zengchang Qin.....	1757
A Study of All Common Subsequences in Kernel Machine	
Zhi-Qun Guo, Hui Wang, Zhi-Wei Lin, Xiao-Lian Guo.....	1763
Convergence Rate of Structural Risk Minimization Principle on Quasi-Probability Space	
Yun-Chao Bai, Peng Wang	1767
Multiple Kernel Learning and Feature Space Denoising	
Fei Yan, Josef Kittler, Krystian Mikolajczyk.....	1771

Stability of Seir System with Random Perturbations	
Xiao-Ying Meng, Fei-Qi Deng, Yun-Jian Peng	1777
The Bounds on the Risk for Real-Valued Loss Functions on Possibility Space	
Peng Wang, Yun-Chao Bai, Chun-Qin Zhang, Cai-Li Zhou	1783
The Integration Information Entropy Method for the Hybrid Multi-Attribute Decision-Making	
Xiao-Xia Zhu, Qun Wang	1787
Ω-Convergence Theory of Ideals in Ω-Molecular Lattices	
Shui-Li Chen, Yun-Dong Wu, Guo-Rong Cai, Jia-Liang Xie	1793

Stochastic Systems algorithm and Applications

3D Reconstruction Based on the Matching Method of GA	
Jie Zhao, Sha Chang, Guo-Zun Men	1798
A Model of Finitary Step Random Walk	
Guo-Chun Zhang, Qian Liu	1802
A New Evolutionary Algorithm for Global Numerical Optimization	
Gao-Ji Sun	1807
A New Hybrid Evolutionary Algorithm with Quasi-Simplex Technique	
Guo-Li Zhang, Hai-Yan Lu, Guang-Quan Zhang	1811
A Theoretical Framework for Runtime Analysis of Ant Colony Optimization	
Zhong-Ming Yang, Han Huang, Zhao-Quan Cai, Yong Qin	1817
Ameliorated Particle Swarm Optimization by Integrating Taguchi Methods	
Chuan-Hsi Liu, Yen-Liang Chen, Jen-Yang Chen	1823
An Improved Ant Colony Algorithm for Continuous Space Optimization	
Liang Yang, Zheng-Qi Fu, De Wang, He-Long Li, Jing-Bo Xia	1829
An Improved Particle Swarm Optimization Algorithm for Geometric Constraint Solving Problem	
Chun-Hong Cao, Chang-Sheng Zhang, Li-Min Wang	1835
Application of Conditional Random Fields Model in Unknown Words Identification	
Hai-Jun Zhang, Wei-Min Pan, Shu-Min Shi, Chao-Yong Zhu	1839
Application of Niche Genetic Algorithm in the Design Of Permanent Magnet Generator in Automobile	
Jin Wang	1844
Evaluation Repeated Random Walks in Community Detection of Social Networks	
Bing-Jing Cai, Hai-Ying Wang, Hui-Ru Zheng, Hui Wang	1849
H1 Guaranteed Cost Control for Stochastic System with Distributed Delays	
Lian-Qing Su, Xiao-Dan Zhu, Chang-Jie Zhou, Ji-Qing Qiu, Yan-Chun Zhao, Xiao-Ming Du	1855
Improvement of Calculating Triple Integral Based on Monte-Carlo Algorithm	
Man-Zhi Li, Hong-Tao Wang, You-Jian Shen	1860
Markov Property of Markov Chains and Its Test	
Yu-Fen Zhang, Qun-Feng Zhang, Rui-Hua Yu	1864
PSO-Based Method for Learning Similarity Measure of Nominal Features	
Yan Li, Xiu-Li Zhang	1868
Random Walk Model in the Application of Game	
Qian Liu, Guo-Chun Zhang	1875
Research on Agile Scheduling Decision Support System in Logistics	
Fu-Zhong Wang	1881
Scheduling Fuzzy Job Shop Using Random Key Genetic Algorithm	
You-Lian Zheng, Yuan-Xiang Li, De-Ming Lei, Chuan-Xiang Ma	1887
Stochastic Transportation Programming Model Based on Effect Synthesis	
Fa-Chao Li, Li Wang, Dan-Dan Jiang	1893
Utilizing Particle Swarm Optimizations on Student Grouping Problem	
Tsu-Feng Ho, Shyong Jian Shyu, Chris Tian-Jen Li	1899

Systems and Controls

Analysis of Practical Stability Domain for A Class of Difference System Yu-Hua Yang	1905
The Property of Teodorescu Operator with Higher Singularity in Clifford Analysis Li-Ping Wang, Na Xu	1910

Systems Modeling and Analysis

A Cybernetic Model for Analytic Network Process Zhen Chen	1914
A Novel Modeling Method of Wood Moisture Content for Drying Process Dong-Yan Zhang, Liang-Kuan Zhu, Wen-Fang Yin, Hong-Jie Gui	1920
A Production-Remanufacturing Inventory Model with Fuzzy Random Demand Zhi-Qiao Zhang	1925
A Study of Performance Evaluation of ERP System Implementation Based On AHP-Fuzzy Comprehensive Evaluation Theory Hong-Li Wang, Shu-Gong Zhou	1930
A Trust Evaluation Method for Dynamic Distributed Environment Li Ma, Yong-Mei Zhang, Qi Wei	1935
Comprehensive Evaluation Index System of County Characteristic Industrial Cluster Based on Analytic Hierarchy Process Hui-Zhen Kong, Qing-Shu Kong	1941
Design and Implementation of Model Framework Generator Yang-He Feng, Liang Mu, Tao Wang, Zhong Liu, Chao-Fan Dai	1947
Evaluating Technologies Based Rough Set Theory Vu Thanh Nguyen, Nguyen Thi Ly Sa	1951
Profit Distribution Model of Integrated Logistics Service Provider Based on Principal-Agent Theory Wei Chen, Yan-Hong Guo, Bao-Ting Li	1957
Research on Comprehensive Evaluation of Regional Logistics Development Based on Principal Component Analysis Li-Na Yuan, Dong-Li Zhang	1962
Research on Index Weight Based on Improved Grey Relational Analysis Mei Yang, Mei-Hong Deng, Rong-Yan Jia, Yue Liu	1967
Robustness Analysis of Military Organization Bao-Xin Xiu, Mei-Lian Liang, Liang Mu	1971
Software Project Risk Assessing Model Based on Credal Networks Ying Qu, Xin-Liang Tang	1976
Soil Water Division by Spss Statistics Analysis Software in Hebei Province Hui Xia, Hui-Ling Han, Lu-Hua Yang, Li-Li Sheng, Hong-Sheng Wang	1980
Study on Comprehensive Evaluation Method of Team Capability Based on Dea Ning Liu, Hua Luo	1987
Study on the System Dynamics of Pork Price Fluctuation Jia Jiang	1993
The “Earth-Moon” Model on Software Project Risk Management Yu-Heng Wang, Jian Jia, Ying Qu	1999
The Existence of Sam Mode for the Brain-State-In-A-Box (Bsb) Models with Delay Yu-Xue Sun, Xue-Gang Li, Xiao-Zhou Fang, Shen-Shan Qiu	2004
The Inverse Kinematics Analysis of the Novel 6-Dof Parallel Mechanism Hong-Rui Wang, Qing-Quan Wang, Malikov Alexander, Xiu-Ling Liu, Bin Dong	2015
The Model of Credit Risk Assessment in Power Industry Base on RS—SVM Wei Sun, Qiu-Shi Du, Bo Cui	2021

The Modeling and Efficiency Analysis Method of C2 System of Systems Based on FINC Model	
Jin-Cai Huang, Wei-Ming Zhang, Guo-Li Yang, Shi-Dong Qiao	2026
Using the Fuzzy Multiple Criteria Decision Making Approach for Risk Evaluation on Investment of Overseas Project	
Shih-Tong Lu.....	2031

Text and Multimedia Information Retrieval

An Novel Modified Extraction Method of Mpeg-7 Visual Descriptor for Image Retrieval	
Jian-Hua Li, Ming-Sheng Liu, Ping Song	2037
Correlation Analysis of Visual Verbs' Subcategorization Based on Pearson's Correlation Coefficient	
Wen-Jie Wu, Yan Xu.....	2042
Fast Fractal Image Retrieval Algorithm Based on Contiguous-Matches	
Yu Liu, Ming Zhang, Fang Yuan	2047
Image Retrieval System Based on Multi-Feature Fusion and Relevance Feedback	
Jing-Yan Wang, Zhen Zhu	2053

Unsupervised Learning

An Algorithm for Clustering Heterogeneous Data Streams with Uncertainty	
Guo-Yan Huang, Da-Peng Liang, Chang-Zhen Hu, Jia-Dong Ren.....	2059
Clustering Algorithm for Probabilistic Data Stream over Sliding Windows	
Wei-Cheng Hu, Zhuan-Liu Cheng.....	2065
Enhanced Co-Occurrence Distances for Categorical Data in Unsupervised Learning	
Jia-Yi Feng, Ming-Chun Wang, Can Wang, Long-Bing Cao	2071
Gene Time Series Data Clustering Based on Continuous Representations and An Energy Based Similarity Measure	
Wei-Feng Zhang, Chao-Chun Liu, Hong Yan.....	2079
Implementation of Rough Fuzzy K-Means Clustering Algorithm in Matlab	
Jun-Hao Zhang, Ming-Hu Ha, Jing Wu.....	2084
Incremental Clustering Algorithm Based on Phrase-Semantic Similarity Histogram	
Walaa K. Gad, Mohamed S. Kamel.....	2088
Optimum Location on Fuzzy Clustering Method	
Ya-Jing Zhang, Ye Zhao, Jing Zhou, Xue-Fei Li, Jun-Jian Qiao	2094
Representative Sequence Selection in Unsupervised Anomaly Detection Using Spectrum Kernel with Theoretical Parameter Setting	
Stefan Jan Skudlarek, Hirotsuke Yamamoto	2099

Visual and Audio Information Processing

A Laser Tracking 3D Coordinates Vision Measuring System	
Zhi-Hong Xue, Zhi-Qiang Sun.....	2105
A Svor Based Method for Automatic Scoring of Prosody Quality in Mandarin Speech	
Hui-Bin Jia, Yin-Cheng Qi,	2109
An Integration Text Extraction Approach in Video Frame	
Li-Jie Li, Jin Li, Lei Wang.....	2115
Automatic Insertion of Advertisements into A Video Sequence	
Wei Chen, Jeng-Sheng Yeh, Tsorng-Lin Chia.....	2121
Conspicuity-Based Visual Scene Semantic Similarity Computing for Video	
Wei Wei, Tian-Yun Yan, Yuan-Mao Zhang.....	2127
Illumination Invariant Sequential Filtering Human Tracking	
Yi-Fan Lu, Dan Xu, Lei Wang, Richard Hartley, Hong-Dong Li	2133

Kernel Based Part of Speech Tagger for Kannada	
Antony P. J., Soman K. P.	2139
Research and Implementation of DNSSEC Monitoring System	
Yu Sun, Ru Juan Liu, Yi Liu	2145
Semi-Physical Simulation of Robot Visual Servo Based On Position	
Xiao-Ping Zong, Xu Ding	2151
Video Shot Boundary Detection Using RBFNN Minimizing the L-GEM	
Zheng-Wei Huang, Wing W. Y. Ng, Patrick P. K. Chan, Jin-Cheng Li, Daniel S. Yeung	2156
Video Text Detection and Localization Based on Localized Generalization Error Model	
Xian-Heng Ma, Wing W.Y. Ng, Patrick P. K. Chan, Daniel S. Yeung	2161

Others

On Filters of Non-Associative Residuated Lattices (Commutative Residuated Lattice-Ordered Groupoids)	
Xiao-Hong Zhang, Huan Ma	2167
Some Thoughts on Process Capability Index	
Wen-Yi Chai, Yu Zhu	2174
The Iteration Scheme With Errors For Zero Point of M-Accretive	
Jin-Wei Shi, Ya-Qin Zheng, Ding-Ping Wu, Chun-Lan Niu	2178
Trusted Measurement Model of Runtime Process Behavior Based on Turing	
Rui-Hua Li, Zhen-Shan Zhu, Chen Li, Min-Hui Jiang	2183

'Cwj qt 'Ipf gz

2010 International Conference on Machine Learning and Cybernetics

(ICMLC 2010)

**Qingdao, China
11 – 14 July 2010**

**Volume 5
Pages 2188-2741**



**IEEE Catalog Number: CFP10523-PRT
ISBN: 978-1-4244-6526-2**

Contents

Greetings from the General Chairs	I
Greetings from the Program Committee Chairs and Co-Chairs	II
Organizing Committee	III
Organizing Committee of IWWIP	V
Program Committee	VII
Program Committee of IWWIP	IX
List of Reviewers	X
List of Reviewers for IWWIP	XII

Contributed Papers

Complex Systems Optimization and Application

An Composite Approach to Measure Stock Liquidity in Chinese Stock Market Ya-Nan Wang, Qi-Zong Wu, Feng Liu	2188
An Optimization Method for Public Traffic Line Network Based on Entropy Weight and Multi-Objective Programming Dong-Mei Li, Fa-Chao Li, Bin Liu	2193
Application of Adaptive Critic Design on Angle Bracket Inverted Pendulum Control Zhen-Yu Wang, Ya-Ping Dai, Yong-Wei Li, Yuan Yao	2198
Application of Directdraw in Real-Time Data Acquisition System Guo-Zhuang Liang, Chang-Jie Zhou, Wei Meng, Shi-Qiang Hu	2204
Application of Fuzzy Controls in Sewage Treatment Wei-Lu Zhu, Hui-Qiong Deng, Shuai Wang	2208
CAM of 802.11 Protocol Design Xiu-Qing Zhang, Xiao-Jun Wang, Guo-Chen An	2212
Customer Value Management Based on AHP and K-Means Clustering Method Jing-Yuan Han, Li-Qun Mei, Tao Wang	2216
Delay-Dependent Robust Stochastic Stability of Cellular Neural Networks with Markovian Jumping Parameters Chang-Jie Zhou, Shao-Cong Guo, Jun-Kang Hao, Li-Yun Yang	2222
Design of Digital Watermarking Algorithm Based on Wavelet Transform Hua Lian, Bo-Ning Hu, Rui-Mei Zhao, Yan-Li Hou	2228

Enterprise Development Potential Evolution Method Based on Analytical Hierarchy Process	
Hong-Fa Shi, Rui-Yuan Xu, Zhan-Ying Cao	2232
Fault-Tolerant Tracking Control Design for a Class of T-S Fuzzy Systems with Actuator Failures	
Li-Ying Liu, Zhi-Feng Gao, Chen-Xia Jin, Shu-Yun Wang.....	2237
Feature-Based Approach Combined with Hierarchical Classifying Strategy to Relation Extraction	
Jing Qiu, Jun-Kang Hao	2243
Fuzzy Control of Corrugating Machine Hot Plate	
Wei-Lu Zhu, Cai-Hong Yan.....	2247
Information Security Risk Assessment Model Base on FSA and AHP	
Zi-Qiu Wei, Ming-Fang Li.....	2252
Multivariate Laplace Transform Ratio Order with Applications	
Xiao-Liang Ling, Shu-Xin Luo, Ping Li.....	2256
Optimization of Logistics Distribution Routing Problem Based on Improved Ant Colony Algorithm	
Na Han, Xiang-Jun Ji.....	2261
Power Transformer Fault Diagnosis Based on Fuzzy C-Means Clustering and Multi-Class SVM	
Hui-Qin Sun, Zhi-Hong Xue, Yun Du, Li-Hua Sun, Ke-Jun Sun	2266
Realization of Administrative Organs Automation System Based on B / S Mode	
Pu-Xuan Liang, Zi-Yu Liu.....	2270
Research on Evaluation of Coordinating Degree of Regional Energy-Economy-Environment System Based on AHP-Gram Model	
Guo-Zhen Wang, Jing Liu.....	2276
Research on Innovation Capability of High-Tech Industry Clusters in Hebei Province Based on Data Envelopment Analysis	
Qiao Li, Qing-Shu Kong, Hong-Ying Li, He Sun.....	2282
Research on Nonlinear System Identification Based on Input Linearization Dynamic Recurrent Neural Network	
Yun Du, Hui-Qin Sun, Fan-Hua Meng, Su-Ying Zhang, Qiang Tian.....	2288
Research on the Evaluation of Foreign Capital Effect of the Different Pattern Industrial Cluster in Hebei Province	
Bao-Zhen Guo, Na Han	2292
Robust Asymptotic Stability Condition Concerning Markovian Jumping Bam Neural Networks of Neutral Type with Mode-Dependent Delay	
Ji-Qing Qiu, Qing Li, Jia Wang, Chang-Jie Zhou, Kuo Yang	2297
Robust Stability of Discrete-Time Stochastic Bam Neural Networks with Markovian Jumping Parameters and Time-Varying Delays	
Gui-Ju Shi, Mi-Feng Ren, Jun-Ling Gao.....	2303
Simulation of Energy and Carbon Fluxes over A Typical Cropland During the Summer Maize Growing in The Yellow River Irrigation Region by Use of SIB2	
Zai-Jian Yuan, Yan-Jun Shen, Lei Wang, Chang Liu, Shugui Cao, Zhang-Wei Lin.....	2309
Speech Recognition System Based on DSP and SVM	
Xiu-Qing Zhang, Shu-Wang Chen.....	2313
Static Output Feedback Stabilization for Discrete Singular Large-Scale Control Systems	
Yuan-Yuan Chen, Shui-Ling Sun, Chao-Tian Chen.....	2317
Study on CAD/CAPP/MES Integration for Small and Medium-Sized Machinery Enterprises	
Yong-Di Zhang, Guang Yang, Yan-Fang Yue	2322
Study on Power Transformers Fault Diagnosis Based on Fuzzy Kernel C-Means Clustering and Dempster-Shafer Theory Fusion Method	
Dong-Hui Liu, Dan-Dan Lv, Xiao-Yun Sun, Jian-Peng Bian	2326
Study on the Detection of Yarn Hairiness Morphology Based on Image Processing Technique	
Xiao-Hong Wang, Jing-Yang Wang, Ji-Lei Zhang, Hong-Wei Liang, Ping-Mian Kou.....	2332
Submesh Allocation in Heterogeneous Chip Multiprocessors	
Qi Zuo, Jing Qiu	2337
The New Adaptive Evolutionary Programming	
Liu Fang	2341

The Topology and Test Technology of Digitally Controlled Potentiometers	
Wei Li, Zhan-You Sha, Bin Wang.....	2345
Web Information Processing and Extracting	
Kai Gao, Bao-Qin Zong, Xiu-Li Yang.....	2350
Wind Erosion Gradient Patterns of Mongolian Plateau	
Yong-Qing Qi, Ji-Yuan Liu, Hua-Ding Shi, Da-Fang Zhuang, Yun-Feng Hu.....	2356

Generalized Measures & Their Integrals

A Framework of Applying Importance-Performance Analysis and A Signed Fuzzy Measure to Evaluate Hospital Service Quality	
Jiunn-I Shieh.....	2360
A Monte Carlo Simulation Study on Choquet Integral with Respect to Different Fuzzy Measures	
Hsu-Chan Yao, Hsiang-Chuan Liu, Yu-Du Jheng, Chun-Jey Chang.....	2366
Applying A Fuzzy Measure to Evaluate the Service Quantity of A Convenient Store	
Shun-Jen Lai, Ling-Ling Hsieh.....	2372
Applying a Generalized Choquet Integral with Signed Fuzzy Measure Based on the Complexity to Evaluate the Overall Satisfaction of the Patients	
Kuan-Kai Huang, Jiunn-I Shieh, Kuei-Jen Lee, Shih-Neng Wu.....	2377
Choquet Integral Algorithm for Thermostable Proteins Based on Hurst Exponent and Generalized L-Measure	
Hornng-Jinh Chang, Pei-Chun Chang, Hsiang-Chuan Liu, Kuei-Jen Lee, Jing-Doo Wang, Yu-Lung Liu.....	2383
Choquet Integral on Liu'S Generalized Intuitionistic Fuzzy Numbers	
Hsiang-Chuan Liu.....	2390
Multiple Svm Classification System Based on Choquet Integral with Respect to Composed Measure of L-Measure and Delta –Measure	
Wen-Chih Lin, Chih-Sheng Huang, Jeng-Ming Yih, Der-Bang Wu, Yen-Kuei Yu.....	2396

Advanced Data Mining and Applications

A New Method for Restoration of Defocused Image	
Wei-Wen Wu, Jin-Hui Zhong, Zhi-Yan Wang.....	2402
Gene Expression Programming with Parallel Hybrid Model	
Yi-Shen Lin, Xiao-Ting Liang.....	2406
Implicit Stochastic Optimization with Data Mining For Reservoir System Operation	
Xue-Zhen Li, Li-Zhong Xu, Yan-Guo Chen.....	2410
Improving Diversity in Web Search Results Re-Ranking Using Absorbing Random Walks	
Gu-Li Lin, Hong Peng, Qian-Li Ma, Jia Wei, Jiang-Wei Qin.....	2416
Multi-Step Bridged Refinement for Classifying Cross-Domian Data	
Jiang-Wei Qin, Hong Peng, Peng Liang, Qian-Li Ma, Jia Wei.....	2422
Phase Space Reconstruction and Prediction of Multivariate Chaotic Time Series	
Chun-Tao Zhang, Jiao Guo, Qian-Li Ma, Hong Peng, Xiao-Dong Zhang.....	2428
Research on Examination of Broiler Price Periods in Data Mining	
Xu-Dong Lin, Shang-Wei Yan, Pi-Yuan Lin, Pei-Jie Huang.....	2434
Shared Reservoir Modular Echo State Networks for Chaotic Time Series Prediction	
Wei-Biao Chen, Qian-Li Ma, Hong Peng.....	2439
The Sperm Video Segmentation Based on Dynamic Threshold	
Li-Xuan Zheng, Zhi-Yan Wang.....	2444

Intelligent Systems

A Study of Confidence Level in New Digital Image Technology for DSC Wei-Ming Yeh.....	2449
A Decision Support System of Statistical Process Control for Printed Circuit Boards Manufacturing Hsin Rau, Chien-Hung Wu, Wei-Jung Shiang, Po-Tsang Huang.....	2454
A Hidden Markov Model-Based Approach for Recognizing Swimmer'S Behaviors in Swimming Pool Hsi-Lin Chen, M. J. Tsai, C. C. Chan.....	2459
A Load-Controllable Mining System for Frequent-Pattern Discovery in Dynamic Data Streams Kuen-Fang Jea, Chao-Wei Li, Chih-Wei Hsu, Ru-Ping Lin, Ssu-Fan Yen.....	2466
A Modified Algorithm of Image Retrieval by Using Modified PIFs Coding Method An-Zen Shih.....	2472
A New Method for Solving the Traveling Salesman Problem Based on the Genetic Simulated Annealing Ant Colony System with Particle Swarm Optimization Techniques Shyi-Ming Chen, Chih-Yao Chien.....	2477
A New Method for Students' Learning Achievement Evaluation Based on the Eigenvector Method Shyi-Ming Chen, Ting-Kuei Li.....	2483
A New Method to Construct Concept Maps for Adaptive Learning Systems Shyi-Ming Chen, Po-Jui Sue.....	2489
A New Method to Evaluate Students' Learning Achievement by Automatically Generating the Importance Degrees of Attributes of Questions Shyi-Ming Chen, Ting-Kuei Li.....	2495
A New Trend of Ebook Confidence Level in Perspective Aspect Wei-Ming Yeh.....	2500
A Note on "Linguistic-Labels Aggregation and Consensus Measure for Autocratic Decision-Making Using Group Recommendations" Shyi-Ming Chen, Li-Wei Lee.....	2504
A Study on Cluster Validity Using Intelligent Evolutionary K-Means Approach Ming-Hseng Tseng, Chang-Yun Chiang, Ping-Hung Tang, Hui-Ching Wu.....	2510
A User-Augmented Object Query System Using Color and Shape Features for Taiwan Wild Birds Photos Hsien-Chang Wang, Yi-Shan Chen, Mei-Yi Wu.....	2516
An Approach to Pattern Recognition by Fuzzy Category and Neural Network Simulation Wang-Kun Chen.....	2521
An Automatic Teaching Materials Construction System Based on Mashup Yi-Hsing Chang, Bo-Kai Chen.....	2527
An Expert System for Managing Emergency Response of Air Pollution Wang-Kun Chen.....	2532
An Exploration Study for Intelligent U-Parking System-Case Study within HWC Campus Chia-Ping Huang, Ta-Tung Chen.....	2538
An Implementation of FPGA Based Driver for Approaching High Resolution of Five-Phase Hybrid Step Motor Shyh-Ming Jong, Shun-Te Hsiao, Yuan Kang.....	2543
An Intelligent Bilingual System for Spoken Language Feng-Long Huang, Ming-Shing Yu, Jun-Hong Lin.....	2549
An Intelligent PSO Watermarking Yuh-Rau Wang, Wei-Hung Lin, Ling Yang.....	2555
Analysis and Comparison of Fish Posture by Image Processing Cheng-Liang Lai, Sung-Ting Tsai, Yu-Tsung Chiu.....	2559
Analysis and Implementation of the PTZ-Class Facial Tracking on Humanoid Robot Ching-Kuo Wang, Yuan-Chang Chang, Cheng-Hang Shieh.....	2565
Application of Intelligent Agent and Rfid Technology for Indoor Position: Safety of Kindergarten as Example Chun-Jung Lin, Tsung-Lin Lee, Shiang-Lan Syu, Bo-Wun Chen.....	2571

Application of Using Fuzzy-Neural Network on PTZ Camera	
Cheng-Liang Lai, Sung-Ting Tsai.....	2577
Automatic Fissure Detection in CT Images Based on the Genetic Algorithm	
Lin-Yu Tseng, Li-Chin Huang	2583
Automatic Path Modeling by Image Processing Techniques	
Cheng-Laing Lai, Kai-Wei Lin.....	2589
Design of the Intelligent Home System Architecture	
Yu-Chuan Su.....	2595
Exploring Better Parameter Set for Singular Value Decomposition (SVD) Hashing Function Used in Image Authentication	
Albert B. Jeng, Li-Chung Chang, Hong-Jhe Li	2600
Forecasting the Change of Intraday Stock Price by Using Text Mining News of Stock	
Shou-Hsiung Cheng.....	2605
Fuzzy Evaluating the Rate of Aggregative Risk in Software Development	
Huey-Ming Lee, Lily Lin	2610
Health Examination Based on IRIS Images	
Cheng-Liang Lai, Chien-Lun Chiu.....	2616
Improving Neural Control with a PID to Have a Better Response	
Penchen Chou, Seehow Pan.....	2622
Intelligent Electoral Districting Mechanism	
Maw-Kae Hor.....	2625
Linguistic Analysis of the Arterial Pressure Signals Using Frequency and Rank Order Statistics	
Hsien-Tsai Wu, Zong-Lin Lin, Chun-Ho Lee, An-Bang Liu	2631
Location Aware Sensor and Fuzzy Data Mule	
Chung-Ming Own, Shau-Yuan Lu, Cheng-Ya Teng.....	2635
Logic Basis for Anticipatory Reasoning-Reacting Systems with Three-Dimensional Moving Objects	
Chun-Yan Han, Yi-Xian Liu, Ji-Peng Liu, Zhi-Liang Liu, Dan-Cheng Li, Zhi-Liang Zhu, Jing-De Cheng.....	2641
Mining Browsing and Purchasing Behaviors of Web Users	
Yue-Shi Lee, Show-Jane Yen, Chia-Hui Wang	2647
Random Pattern Testing for MCM Interconnect Using Computer Generated Hologram Technology	
Chi-Yuan Chang	2653
Sean: A Simple Expanding-Tree Algorithm Based On Mean-Division for Color Quantization	
Cheng-Fa Tsai, Ying-Sheng Lin, Jen-Chih wang.....	2658
The Examination of Using Fractal Dimension on the Map: Using Taipei City as an Sample	
An-Zen Shih, Jheng-Huei Sie, Peng Kaiyang.....	2664
The Generation of the All-In-Focus Image Based on Texture and Range Information	
Ming-Yang Liu, Yung-Fang Chen, Tsorng-Lin Chia.....	2668
The Maintenance of Representative Frequent Itemsets	
Show-Jane Yen, Yue-Shi Lee, Chiu-Kuang Wang	2675
The Radio Frequency Identification Tag with the Function of Anti-Collision and Anti-Counterfeiting	
Albert B. Jeng, Li-Chung Chang, Te-En Wei, Hong-Zhe Li.....	2681
The Speech Interface for Intelligent Robots	
Wan-Chen Huang.....	2687
Twice Background Determination Algorithm for Color Document Images	
Chun-Ming Tsai.....	2692
Using Svm to Design Facial Expression Recognition for Shape and Texture Features	
Hung-Hsu Tsai, Yen-Shou Lai, Yi-Cheng Zhang.....	2697

Fuzzy Systems

A New Weighted Fuzzy Rule Interpolation Method Based on GA-Based Weights-Learning Techniques Shyi-Ming Chen, Yu-Chuan Chang	2705
An Integrity-Based Fuzzy C-Means Method Resolving Cluster Size Sensitivity Problem Y. H. Lai, P. W. Huang, P. L. Lin	2712
Dangerous Driving Event Prediction on Expressways Using Fuzzy Attributed Map Matching Chiung-Yao Fang, Bo-Yan Wu, Jung-Ming Wang, Sei-Wang Chen	2718
FCM Algorithm Based on Normalized Mahalanobis Distances in Image Clustering Jeng-Ming Yih	2724
Fuzzy Set with Three Kinds of Negations in Fuzzy Knowledge Processing Zheng-Hua Pan	2730
Generalized Addition and Scalar Multiplication Operations on Liu's Generalized Intuitionistic Fuzzy Numbers Hsiang-Chuan Liu	2736

'Cwj qt 'Ipf gz

2010 International Conference on Machine Learning and Cybernetics

(ICMLC 2010)

**Qingdao, China
11 – 14 July 2010**

**Volume 6
Pages 2742-3385**



**IEEE Catalog Number: CFP10523-PRT
ISBN: 978-1-4244-6526-2**

Contents

Greetings from the General Chairs	I
Greetings from the Program Committee Chairs and Co-Chairs	II
Organizing Committee	III
Organizing Committee of IWWIP	V
Program Committee	VII
Program Committee of IWWIP	IX
List of Reviewers	X
List of Reviewers for IWWIP	XII

Contributed Papers

Intelligent Systems: Theorem and Applications

A Frequency-Domain Double-Talk Detector Combined with the Regularized GMDF Adaptive Filter Hsu-Chang Huang, Junghsi Lee	2742
A Novel Neuro-Fuzzy Classification System Design by a Species-Based Hybrid Algorithm Ching-Hung Lee, Hsin-Wei Chiu, Chung-Ta Li	2748
An Intelligent Positioning Approach: Rssi-Based Indoor and Outdoor Localization Scheme in Zigbee Networks Wen-Hsing Kuo, Yun-Shen Chen, Gwei-Tai Jen	2754
Autonomous Adaptive Agents for Market-Based Resource Allocation of Cloud Computing Yee-Ming Chen, Hsin-Mei Yeh	2760
Chaos Synchronization of Two Uncertain Chaotic Nonlinear Gyros Using Rotary Sliding Mode Control Te-Yu Chen, Wei-Wei Zhang, Chih-Min Lin, Daneil S. Yeung	2765
CMAC-Based Fault Accommodation Control for Tank System Chih-Min Lin, Chang-Chih Chung, Yu-Ju Liu, Daniel S. Yeung	2771
Cross-View Object Identification Using Principal Color Transformation Shin-Yu Chen, Jun-Wei Hsieh, Duan-Yu Chen	2777
Design of an FPGA-Based Fuzzy Sliding-Mode Controller for Light Tracking Systems Chun-Fei Hsu, Pei-Yu Lee, Chih-Hu Wang	2782
Development of a Neural Classifier with Genetic Algorithm for Structural Vibration Suppression Chuen-Jyh Chen	2788
Human Subject-Based Video Browsing and Summarization Duan-Yu Chen, Kuei-Cheng Chu, Yu-Chien Liu, Yung-Sheng Chen	2796

Observer Base Linear Quadratic Regulation with Estimated State Feedback Control	
Chi-Kuang Hwang, Kun-Shu Huang, Kuo-Bin Lin, Bore-Kuen Lee	2802
One Simple Procedure to Find the Best Approximate Solution for Fuzzy Max-Average Inverse Relation	
Yan-Kuen Wu, Sy-Ming Guu	2806
Speaker Identification Using Hidden Conditional Random Field-Based Speaker Models	
Wei-Tyng Hong	2811
The Applications of Stochastic Regulation H^∞ Control to HIV Therapy	
Bor-Sen Chen, Chien-Feng Wu, Bore-Kuen Lee	2817

Information Security

A Near Reversible Image Watermarking Algorithm	
Bin Zhang, Yang Xin, Xin-Xin Niu, Kai-Guo Yuan, Hui-Bai Jiang	2824
A Novel Vector Edge Sampling Scheme For IP Traceback against DDOS Attacks	
Jun Wei, Kai Chen, Yi-Feng Lian, Ying-Xia Dai	2829
A Quick Real-Time Fault Management System	
Zhan-Hua Cui, Hui-Lin Liu, Rui-Dong Hu	2833
A Trust Model of TCB Subsets	
Yong Li, Xing Zhang	2838
A Trusted Computing Environment Model in Cloud Architecture	
Xiao-Yong Li, Li-Tao Zhou, Yong Shi, Yu Guo	2843
Incremental Intrusion Detecting Method Based on SOM/RBF	
Li-Ye Tian, Wei-Peng Liu	2849
Research on the Architecture of Vulnerability Discovery Technology	
You-Chun Zhang, Qiang Wei, Zeng-Liang Liu, Ying Zhou	2854
The Design and Implementation of a Malicious Code Behavior Detecting Model Based on Virtualization Technology	
Wei Ma, Ming Wang, Bo Zhu	2860
The Study about Fingerprint Recognition Based On Orthogonal Transforms	
Li-Jing Cai, Li-Juan Cai, Zhan-Hua Cui, Ying-Nan Liu, Li Yang	2864
Towards Hierarchical-User RBAC Model	
Chuan-Lun Ren, Xiao-Hui Zuo, Zhong-Xian Li, Xin-Xin Niu, Yi-Xian Yang	2870

Intelligent Information Mining

A Distributional Similarity Measure for Query-Dependent Ranking in Web Mining	
Jung-Yi Jiang, Lian-Wang Lee, Shie-Jue Lee	2875
A Hybrid Approach for Automatic Schema Matching	
Been-Chian Chien, Shiang-Yi He	2881
A Hybrid Image Watermarking Scheme Based on SVD and DCT	
Chih-Chin Lai, Chih-Hsiang Yeh	2887
Causal Driver Detection with Deviance Information Criterion	
Shing H. Doong, Tean Q. Lee	2892
Determination of Basketball Types with Grey Analysis	
Che-Chern Lin, Jia-Fei Lin, Cheng-Chung Yu, Tean-Quay Lee	2898
Mean Shift Tracking Using Fuzzy Color Histogram	
Ming-Yi Ju, Chen-Sen Ouyang, Hao-Shiu Chang	2904
Web Usage Mining on the Sequences of Clicking Patterns in a Grid Computing Environment	
Chih-Hung Wu, Yen-Liang Wu, Yuan-Ming Chang, Ming-Hung Hung	2909

Learning Methods and their Applications

A Greedy Strategy for Images Segmentation by Support Vector Machines	
Chih-Hung Wu, Chun-Yen Chen, Yan-He Chen, Chia-Lin Wu, Shing-Hwang Doong	2915

A Machine-Learning-Based Fault Diagnosis Approach for Intelligent Condition Monitoring	
Chih-Chung Wang, Chien-Wei Lee, Chen-Sen Ouyang	2921
An Improved Neural-Network-Based Palm Biometric System with Rotation Detection Mechanism	
Chen-Sen Ouyang, Rong-Ching Wu, Chih-Chung Wang	2927
Digital Image Watermarking Using DCT and Z-Score Transform	
Chih-Chin Lai, Ci-Fong Jhan, Wei-Shun Wang	2933
Fuzzy Clustering with Principal Component Analysis	
Min-Zong Rau, Chi-Yuan Yeh, Shie-Jue Lee	2938
Genetic Programming for the Approximation of GPS Gdop	
Chih-Hung Wu, Ya-Wei Ho	2944
Speech Recognition via Hidden Markov Model and Neural Network Trained by Genetic Algorithm	
Shing-Tai Pan, Ching-Fa Chen, Jian-Hong Zeng	2950

Intelligent Systems with Applications

A Design of Multi-Heterogeneous System Using SOA and RFID Middleware Platform	
Chih-Yung Chen, Pei-Wen Tsai	2956
A Robust Fuzzy Cmac for Function Approximation	
Hong-Lin Shieh, Chin-Yun Bao	2962
An Anti-Swindle Mahjong System Using RFID	
Jenn Tang, Shinchyang Lee	2967
An Ontology-Supported Ubiquitous Interface Agent for Cloud Computing—Example on Bluetooth Wireless Technique with Java Programming	
Sheng-Yuan Yang, Chun-Liang Hsu, Dong-Liang Lee	2971
Evaluation of Substation Bus Schemes Considering Reliability	
Cheng-Chien Kuo, Fu-Hsien Chen	2979
Initiated Language Learning Machine with Multi-Media and Speech-Recognition Techniques	
Dong-Liang Lee, Chun-Liang Hsu, Sheng-Yuan Yang, Wei-Ying Chen	2985
Optimization Design of PID Controllers for Pemfc with Reformer Using Genetic Algorithm	
Hung-Cheng Chen, Sin-Yuan Tzeng, Po-Hung Chen	2990
Pattern Recognition for Partial Discharge Diagnosis of Power Transformer	
Po-Hung Chen, Hung-Cheng Chen, An Liu, Li-Ming Chen	2996
Practical Design of Active & Intelligent Energy-Saving System with Modules Strategy	
Chun-Liang Hsu, Sheng-Yuan Yang, Teng-Yaw Hsu, Wei-Bin Wu	3002
The Study on Design Speech-Control Powerpoint Presentation Tool	
Kune-Yao Chen, Lawrence Y. Deng	3009

Multimedia Editing and Processing

Adaptive Camera Assignment and Hand-Off Algorithm in Multiple Active Camera Surveillance System	
Chao-Yang Lee, Shou-Jen Lin, Chen-Wei Lee, Chu-Sing Yang	3015
Alteration Detection and Image Recovery Using Halftone Replacement Prior Watermark Embedding	
Jing-Ming Guo, Tsair Kao, Yun-Fu Liu, Jong-Tzy Wang	3021
Intra Frame Interpolation with H.264 Intra Prediction Method	
Jong-Tzy Wang, Huai-Sheng Su	3026
New Inverse Halftoning Using Texture—and Lookup Table—Based Learning Approach	
Yong-Huai Huang, Kuo-Liang Chung	3033
Prediction of Short-Term Average Vehicular Velocity Considering Weather Factors In Urban Vanet Environments	
Jyun-Yan Yang, Li-Der Chou, Yu-Chen Li, Yu-Hong Lin, Shu-Min Huang, Gwojyh Tseng, Tong-Wen Wang, Shu-Ping Lu	3039
The Fast Stroke Filter	
Yi-Ching Su, Chen-Wei Lee, Yung-Hsuan Yang	3044

The Study and Implementation of Real-Time Face Recognition and Tracking System Shou-Jen Lin, Chao-Yang Lee, Mei-Hsuan Chao, Chi-Sen Chiou, Chu-Sing Yang	3050
--	------

Data Mining and Machine Learning in Biomolecular Systems

A Novel Three-Class ROC Method for eQTL Analysis Wei-Chao Xu, Pei-Kai Chen, Y. S. Hung, S. Y. Kung	3056
Identifying Periodicity of Microarray Gene Expression Profiles by Autoregressive Modeling and Spectral Estimation Tsz-Yan Tang, Hong Yan	3062
Inferring Gene Regulatory Networks from Expression Data with Prior Knowledge by Linear Programming Zhi-Ping Liu, Xiang-Sun Zhang, Luo-Nan Chen	3067
Modeling and Identification of Gene Regulatory Networks: A Granger Causality Approach Z. G. Zhang, Y. S. Hung, S. C. Chan, W. C. Xu, Y. Hu	3073
PCA Based Sequential Feature Space Learning for Gene Selection Jing-Lin Yang, Han-Xiong Li	3079
Principal Component Analysis of Nucleosome DNA Conformational Data Xi Yang, Hong Yan	3085

Pattern Recognition & Information Security

A New Method of Gait Recognition Independent of View Angle Han Su, Guo-Yue Chen	3091
A Simplifying Method of Vision Attention Simulating Human Vision in Machine Vision System Jin-Fang Shi, Cai-Jian Hua, Guo-Hui Li	3097
Design and Formal Analysis of a New Fair Multi-Party Certified Mail Protocol Yue-Xiang Gao, Dai-Yuan Peng, Li -Li Yan	3101
Novel Algorithm for Underdetermined Blind Source Separation Based on Matching Pursuit Wei-Hua Wang, Guang-Zhong Liu, Wei-Wei Yu	3107
Quantized State Estimation for Sensor Neterworks Quan-Bo Ge, Ting-Liang Xu	3111
Receptor Editing-Inspired Negative Selection Algorithm Gui-Yang Li, Tao Guo	3117
The Research for the Efficiency of Communication Mechanism on Mobile Agent System Yun-Peng Feng, Na Zhang	3123
To Determine Neighborhoods in Ultrasound Image Denoising Zhi-Wu Liao, Shao-Xiang Hu, Jian-Jun Wang, Zhi-Qiang Yu	3128

Smoothing Support Vector Machine

Approximate Interpolation by a Class of Neural Networks in Lebesgue Metric Chun-Mei Ding, Yu-Bo Yuan, Fei-Long Cao	3134
Canonical Duality Solution to Support Vector Machine Yu-Bo Yuan, Fei-Long Cao	3140
Estimate Human Gene Family Number by Improved K-Means Clustering Dong-Mei Pu, Yu-Bo Yuan, Fei-Long Cao	3146
Relationship of Eigenvalue between Mpsd Iterative Matrix and Jacobi Iterative Matrix Zhuan-De Wang, Chuan-Sheng Yang, Li Tan	3150
Sixth Order Polynomial Smoothing Approximation Solution to Support Vector Machine Yu-Bo Yuan, Dong-Mei Pu, Fei-Long Cao	3154
Solving the Linear Complementarity Problem for Stieltjes Matrix with Interval Data Chuan-Sheng Yang	3158

The Construction and Approximation for Feedforward Neural Networks with Fixed Weights	
Fei-Long Cao, Ting-Fan Xie	3164

Brain and Cognitive Engineering

Accelerating Generalized Iterative Scaling Using Componentwise Extrapolations for On-Line Conditional Random Fields	
Hee-Deok Yang, Seong-Whan Lee	3169
Mind Reading: an Automated Classification of Thought Processes from Imagery fMRI Data	
Jong-Hwan Lee, Matthew Marzelli, Ferenc A. Jolesz, Seung-Schik Yoo	3174
Statistical Spectral Feature Extraction for Classification of Epileptic EEG Signals	
Seong-Hyeon Choe, Yoon Gi Chung, Sung-Phil Kim	3180
Temporal Gradient Pattern for the Near-Duplicate Video Clustering	
Hyundeok Lee, Hyeran Byun	3186
X-Ray Image Classification Using Random Forests with Local Binary Patterns	
Seong-Hoon Kim, Ji-Hyun Lee, Byoungchul Ko, Jae-Yeal Nam	3190

Intelligent Techniques Applications in Engineering

A RBF Network for Short – Term Load Forecast on Microgrid	
Fang-Yuan Xu, M. C. Leung, Long Zhou	3195
Artificial Neural Network for Load Forecasting in Smart Grid	
Hao-Tian Zhang, Fang-Yuan Xu, Long Zhou	3200
Hybrid Bacteria Foraging-De Based Algorithm for Economic Load Dispatch with Non-Convex Loads	
Nidul Sinha, Loi Lei Lai, L.C.Saikia, T. Malakar	3206
Impact of Smart Metering on Energy Efficiency	
Long Zhou, Fang-Yuan Xu, Ying-Nan Ma	3213
Protecting Smart-Grid with Breno-Silva Fast Single Pattern Match Algorithm for Small Patterns	
Breno Silva Pinto, Chun Che Fung	3219

Intelligent systems and applications

An Intelligent Negotiation Strategy Prediction System	
Wei-Min Lee, Chien-Chang Hsu	3225
An Intelligent Sleep Apnea Detection System	
Chien-Chang Hsu, Ping-Ta Shih	3230
Applying Assimilation and Accommodation for Cooperative Learning of Robocup Agent	
Jong-Yih Kuo, Hsuan-Kuei Cheng	3234
Evolutionary Dynamic Particle Swarm Optimization for Data Clustering	
Jen-Ing G. Hwang, Chia-Jung Huang,	3240
Genetic Algorithm for QOS-Aware Dynamic Web Services Composition	
Yong-Yi Fanjiang, Yang Syu, Chun-Hung Wu, Jong-Yih Kuo, Shang-Pin Ma	3246
Optimal Service Selection for Composition Based on Weighted Service Flow and Genetic Algorithm	
Shang-Pin Ma, Jong-Yih Kuo, Yong-Yi Fanjiang, Chin-Pin Tung, Chun-Ying Huang	3252
Robust Face Recognition under Illumination and Facial Expression Variations	
Ching-Liang Lu, Luo-Wei Tsai, Yuan-Kai Wang, Kuo-Chin Fan	3257
Strategy-Based Personal Music Channel Service	
Jia-Lien Hsu, Yu-Yung Su	3264

International Workshop on Web Information Processing

A Clustering Based Fast Detection Algorithm for Large Scale Duplicate Emails	
Lin Sun, Bing-Quan Liu, Bao-Xun Wang, Xiao-Long Wang	3270

A Comparative Study on Two Large-Scale Hierarchical Text Classification Tasks' Solutions	
Jian Zhang, Hai Zhao, Bao-Liang Lu	3275
An Efficient Approach for Sentence-Based Opinion Retrieval	
Bin-Yang Li, Lan-Jun Zhou, Shi Feng, Kam-Fai Wong	3281
An Information Extraction System for Heterogeneous Web Source	
Ting Zhou, Cheng-Jie Sun, Lei Lin, Bing-Quan Liu	3287
Approaches to Improving Corpus Quality for Statistical Machine Translation	
Peng Liu, Yu Zhou, Cheng-Qing Zong	3293
Chinese Subjectivity Detection Using a Sentiment Density-Based Naive Bayesian Classifier	
Xin Wang, Guo-Hong Fu	3299
Cogntaxo: Modeling Human Cognitive Process with a Three-Dimensional Question Taxonomy	
Yao-Yun Zhang, Xiao-Long Wang, Xuan Wang, Shi-Xi Fan	3305
Combining a Large Sentiment Lexicon and Machine Learning for Subjectivity Classification	
Bin Lu, Benjamin K. Tsou	3311
Dictionary Based Inverted Index for Music Information Retrieval	
Xiao-Hong Yang, Qing-Cai Chen, Xiao-Long Wang	3317
Does Joint Decoding Really Outperform Cascade Processing in English-to-Chinese Transliteration Generation?	
The Role of Syllabification	
Yan Song, Chun-Yu Kit,	3323
One-Class Classification Models for Financial Industry Information Recommendation	
Jun Xu, Qing-Cai Chen, Xiao-Long Wang, Zhong-Yu Wei	3329
Online Supervised Learning from Multi-Field Documents for Email Spam Filtering	
Wu-Ying Liu, Lin Wang, Ting Wang	3335
Online Topic Detection and Tracking Financial News Based on Hierarchical Clustering	
Xiang-Ying Dai, Qing-Cai Chen, Xiao-Long Wang, Jun Xu	3341
Opinion Retrieval Based on Mutual Reinforcement between Opinon Analysis and Relavance Estimation	
Rui-Feng Xu, Chun-Yu Kit	3347
Product Features Mining Based on Conditional Random Fields Model	
Bing Xu, Tie-Jun Zhao, De-Quan Zheng, Shan-Yu Wang	3353
Relationship Extraction from Biomedical Literature Using Maximum Entropy Based on Rich Features	
Lin Yao, Cheng-Jie Sun, Xiao-Long Wang, Xuan Wang	3358
Semantic Annotation Based Financial Web Information Reorganization	
Bo Yuan, Qing-Cai Chen, Xiao-Long Wang, Li-Bo Liu	3362
Simrank: A Link Analysis Based Blogger Recommendation Algorithm Using Text Similarity	
Chang Sun, Bing-Quan Liu, Cheng-Jie Sun, De-Yuan Zhang, Xiao-Long Wang	3368
Study on Wikipedia for Translation Mining for CLIR	
Jian-Min Yao, Chang-Long Sun, Yu Hong, Yun-Dong Ge, Qiao-Min Zhu	3374
The Application of LSI Truncation in Spam Filtering Dimension Reduction	
Peng-Ming Wang	3380