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 Naïve 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
Pyiarat Silapasupakornwong, Suphakami 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 Shiaing, 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

$\ell_2$-$\ell_\infty$ 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, Dai-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, Chuhan 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, Ji-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, Ji-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 Rolfs 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 Netwok 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

Neural Network Optimization Based on Improved Diploidic Genetic Algorithm
Ke-Yong Shao, Fei Li, Bei-Yan Jiang, Na Wang, Hong-Yan Zhang, Wen-Cheng Li

Prediction of Subcellular Localization Using Maximal-Margin Spherical Support Vector Machine
Wei-Ming Chen, I-Lin Wu, Jung-Hsien Chang, Pei-Yi Hao

Radial Basis Function Networks with Adjustable Kernel Shape Parameters
I-Cheng Yeh, Xin-Ying Zhang, Chong Wu, Kuan-Chieh Huang

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

Sensitivity Analysis of Multilayer Perceptron Based on Elastic Function
Chun-Guo Li, Hai-Feng Li, Yu-Fen Zhang, Qun-Feng Zhang

Short-Term Load Forecasting Based on Bayesian Neural Networks Learned by Hybrid Monte Carlo Method
Hui-Feng Shi, Yan-Xia Lu

Study on the Method of Fault Diagnosis in Analog Circuits Based on New Multi-Class SVM
Jin-Long An, Zhen-Ping Ma

Study on the Solving Method of Electromagnetic Field Forward Problem Based on Support Vector Machine
Jin-Long An, Zhen-Ping Ma

Support Vector Machine Based on a New Reduced Samples Method
Shu-Xia Lu, Jie Meng, Gui-En Cao

The Improved Localized Generalization Error Model and Its Applications to Feature Selection for RBFNN
Yan-Jun Cui, Jie Li, Yan-Dong Ma

Tracking Control for a Class Of Unknown Nonlinear Systems Based on LS-SVM
Chun-Li Xie, Cheng Shao, Dan-Dan Zhao

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

Weed Identification Method Based on Probabilistic Neural Network in the Corn Seedlings Field
Li Chen, Jin-Guo Zhang, Hai-Feng Su, Wei Guo

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

A Kind of Utility Function in Adaptive Dynamic Programming for Inverted Pendulum Control
Zhen-Yu Wu, Ya-Ping Dai, Yong-Wei Li, Yuan Yao

A New Hierarchical Simultaneous Localization and Mapping Method Based on Local Shape Context of Environment
Hao-Hua Luo, Hao-Qing Min, Yan Shao

An Evolutionary Algorithm with Sorted Race Mechanism for Global Optimization
Xue-Qiang Li, Zhi-Feng Hao, Han Huang

Discrete Construction of Voronoi Diagrams for Cross Generators
Ye Zhao, Ya-Jing Zhang, Qiong-Hong Zhang

Hybrid Differential Evolution for Cogeneration Economic Dispatch Problem
Chao-Lung Chiang, Chia-An Wang

Initialization for Synchronous Sequential Circuits Based on Chaotic Particle Swarm Optimization
Yan-Li Hou, Ming Yang, Rui-Mei Zhao, Hua Lian

Modeling Concrete Strength Using Genetic Operation Trees
I-Cheng Yeh, Che-Hui Lien, Chien-Hua Peng, Li-Chuan Lien

Multiple Moving Objects Detection and Tracking Based on Optical Flow In Polar-Log Images
Hai-Yan Zhang

Scheduling Jobs and Preventive Maintenance on Fuzzy Job Shop Using Genetic Algorithm
You-Lian Zheng, Yuan-Xiang Li, De-Ming Lei
Proceedings of the Ninth International Conference on Machine Learning and Cybernetics, Qingdao, 11-14 July 2010

Study on Auto-Path Planning According to Grade Priority for Sorting Dies
Tao Wu, Bin Li, Long-Wen Wang, Yu Huang ........................................................................................................... 1590

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

Author Index