Contents:

Editorial Board ................................................................................................................................. i
Call for Papers ................................................................................................................................. vii

< PART 1 >

Stability Analysis for Uncertain Delayed Neural Networks of Neutral-Type under Stochastic Perturbations ......................................................................................................................... 1
Guoquan Liu, Shaobin Guan, Shumin Zhou, Ming Li, Zhicheng Wang

Car-Following Behavior Analyses Using BJTU Driving Simulator .............................................. 9
Xuedong Yan, Bin Wang, Jia Zhao, Lu Ma, Wang Xiang

A Method for Product Design Knowledge Reduction Based on Customer Segmentation ......... 17
Chen Daqiang, Ge Wenjie, Hua Ertian

A New Path Planning Method for Mine Rescue Robot Based on Quasi Geodesic and Neural Network .................................................................................................................................................. 25
Hui Li, Xiaoguang Zhang

Sphericity Evaluation Using Minimum Zone Solution ...................................................................... 40
Fanwu Meng, Chenguang Xu, Lei Tang

Investigation on Impact Probability between Fragments from Horizontal Cylindrical Vessel Explosion and Cylindrical Tank ............................................................................................................. 48
Dongliang Sun, Guangtuan Huang, Juncheng Jiang, Mingguang Zhang, Zhirong Wang

Web Service Ranking Functions based on Network Linkage Analysis .......................................... 58
Junhao Wen, Peng Li, Ruifeng Zhao

A New Method for Estimating Mine Human Error: AHP-FCE ......................................................... 66
Lan Jianyi, Zhou Ying

NSCT Domain Modulus Maxima Vehicle Image Edge Detection Combined with Background Differencing .............................................................................................................................................. 74
Ma Guocui, Li Qingwu, Huo Guanying, Wang Min, Sheng Huixing

Research and Simulation on Estimate Methods of Vehicle Trajectory in Traffic Accident ........ 81
Linna Huang, Chunli Liu

The Application of Data Mining Technology in the Customer Relationship Management Based on the Customer Loyalty Strategy .................................................................................................................. 89
Lu Jiang
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of Postponement Strategies in Benetton using OptQuest Simulation</td>
<td>97</td>
</tr>
<tr>
<td>Shanliang Li, Chunhua Wang</td>
<td></td>
</tr>
<tr>
<td>The Research of Library’s Auto-borrowed and Return Books Based on RFID Technology</td>
<td>105</td>
</tr>
<tr>
<td>Wei WEI, LIANG ZHANG, Bin Yang, Jing Zhang, PEIYI SHEN, Li Fan</td>
<td></td>
</tr>
<tr>
<td>Research and Design of Robot Examiner for Driving Test</td>
<td>116</td>
</tr>
<tr>
<td>Wang Jinling, Sun Wei, Qian Zituo, Mu Daoming, Wang Jianping</td>
<td></td>
</tr>
<tr>
<td>Simulation Model Construction and Analysis on Effects of Intellectual Property Protection for Enterprise Independent Innovation</td>
<td>123</td>
</tr>
<tr>
<td>Yang De-yun, Li Dong, Bai Yun</td>
<td></td>
</tr>
<tr>
<td>Self-Learning Intelligent Single Particle Optimizer</td>
<td>131</td>
</tr>
<tr>
<td>Li Peiwu, Zhao Jia</td>
<td></td>
</tr>
<tr>
<td>Research on New Fault Diagnosis Method for Blast Furnace Based on Virtual Samples Selection with Manifold Contraction</td>
<td>139</td>
</tr>
<tr>
<td>Mo Sha, Anna Wang, Limei Liu, Maxiuchang Chu</td>
<td></td>
</tr>
<tr>
<td>An Optimal Emergency Material Allocation Model with Multiple Affected Areas</td>
<td>146</td>
</tr>
<tr>
<td>Daqiang Chen, Fei Ding</td>
<td></td>
</tr>
<tr>
<td>Co-integration Analysis of Strategic Emerging Industries and Venture Capital: Experience from the High-tech Industry in China</td>
<td>154</td>
</tr>
<tr>
<td>YU Shihai, SHI Zhangming, SONG Fen</td>
<td></td>
</tr>
<tr>
<td>Prediction of Energy Consumption in Steel Enterprises based on BP_Adaboost Algorithm</td>
<td>162</td>
</tr>
<tr>
<td>Gu Wei, Hu Rui, Du Xiuting</td>
<td></td>
</tr>
<tr>
<td>Performance-optimized Clustered Buffer Pool and Shared Structures in Vision Inspection</td>
<td>170</td>
</tr>
<tr>
<td>Performance-optimized Clustered Buffer Pool and Shared Structures in Vision Inspection</td>
<td></td>
</tr>
<tr>
<td>Empirical Analysis on Influence Factors of Agricultural Intra-industry Trade from Guangxi and ASEAN Regions</td>
<td>177</td>
</tr>
<tr>
<td>HE Yong, YU Shihai</td>
<td></td>
</tr>
<tr>
<td>Fault-tolerant and Adaptive Control of High-speed Train Systems</td>
<td>186</td>
</tr>
<tr>
<td>Tao Tao, Hong-ze Xu</td>
<td></td>
</tr>
<tr>
<td>A Routing Protocol for Internet of Things with High-speed Mobile Nodes</td>
<td>198</td>
</tr>
<tr>
<td>Hua-Mei Xin, Kun Yang</td>
<td></td>
</tr>
<tr>
<td>Fingerprint Recognition Algorithm Based on Projection Pursuit</td>
<td>206</td>
</tr>
<tr>
<td>ZhiYong Xu</td>
<td></td>
</tr>
<tr>
<td>Palmprint Recognition Algorithm Based on Principal Component Analysis</td>
<td>214</td>
</tr>
<tr>
<td>Suo Li</td>
<td></td>
</tr>
</tbody>
</table>
The Application of Decision Cognitive Model in Sports ................................. 222
SUN Ling-ling, LUO Qiang

The Influence on the Athletes Joint Rehabilitation of Aerobic Fitness Training ........... 230
Dai Zhao

The Improved Algorithm of Spray and Wait Routing Protocol in Delay Tolerant Network ... 238
En WANG, Yongjian YANG, Xi CHEN, Chen SHEN, LiYing HAN

The Two-level Optimization Model Research on Rural Water Source Location Decision ...... 246
LI yan, ZHANG Lian-ying

Research on Fuzzy Controller Implementation of Photovoltaic System MPPT Function Based on FPGA ............................................................................................................................. 254
Bao-hua Zhang, Li Zhang, Yong-cheng Jiang

< PART 2>

Design and Implement of PE Network Education Platform Facing to Network Sports Teaching Resources ............................................................................................................................. 263
Xiao-long Weng

Research on Data Mining Algorithm Based on the Neural Network ......................... 272
Xiaoyan Wan

Stability Analysis of Network Control System Based on Neural Network Prediction .......... 280
Yong-ming He

Linux Malware Detection using Byte N-grams ...................................................... 288
Jinrong Bai, Yanrong Yang, Shiguang Mu, Yu Ma

Multiple Kinematic Features used for Action Recognition ...................................... 296
Yuanbo Chen, Yanyun Zhao, Anni Cai

A Random Ranking Function method on Intuitionistic Fuzzy Sets Applied to Multiple Attribute Decision Making ............................................................................................................................. 304
Zhenhua Zhang, Yong Hu, Qiansheng Zhang, Jingyu Yang, Youpei Ye

Evolutionary Game Strategy of Virtual Computing Resource Allocation in Cloud Computing Environment ............................................................................................................................. 313
Xiaoqing ZHANG, Zhongtang HE, Tongkai JI, Qiang YUE

Robust Software Ownership Identification System Using AES and HASH Functions ....... 322
Xiaoyan Sun, Maosheng Zhang, Xiaoshu Zhu

The Combining of Classifiers of Average Profit Maximum with Prior Knowledge .......... 329
Xianghui Zhao, Dong Liu, Zhongliang Fu, Hui Liu

Incentive Compatible Mechanism for Multipath Inter-domain Routing ...................... 339
Donghong Qin, Jiahai Yang, Hui Wang, Zhengxiong Zhang
Study on Fault Diagnosis for Hydroelectric Generator Unit based on SOM Neural Network

Yu Zhou, Peichong Wang

A Supervised Access Control Model

Longjun Huang, Hao Wang, Bin Guo

A Semi-supervised Approach for Missing Data Imputation based on Fuzzy K-means Clustering

Jing Tian, Bing Yu, Dan Yu, Shilong Ma

An Improved Core Vector Regression for Network Security Situation Forecasting

Yuancheng Li, Liping Zhang, Yiliang Wang

Research on Employment Information Mobile Storage and Search Engine Based on Cloud Computing

Li-feng Wei, Bing-mei Zhao

A New Knowledge Discovery Model KD (D&K) *I for the Complex system

Haifeng Sui, Yun Zhai, Bingru Yang, Bing An, Changsheng Zhang

Robust Mean-Shift Tracking with Scalable Kernel Band-Width

Yundong Li

Human Action Recognition Based on Holistic Features and Key Frames

Yong HU, Wei ZHENG

An Improved Particle Swarm Optimization Algorithm for Solving Unconstrained Optimization Problems

Hanmin Liu, Xuesong Yan, Wei Chen, Can Zhang, Wei Li, Wenjing Luo

Research on New Generation Network Monitoring System

Jiantao Gu, Jun Zheng, Benluo Xiao

Non-Equidistant New Information GRM (1, 1) Based on Accumulated Generating Operation of Reciprocal Number

Youxin LUO

Non-Equidistant Multivariable Information Optimizing MGM (1, N) based on Improving Background Value

Youxin LUO, Qiyun LIU, Zhigang LI

Numerical Simulation of Dust Distributing Law in Fully Mechanized Caving Face

Wen Nie, Weimin Cheng, Gang Zhou, Xihe Wei

BGA Solder Joint Reconstruction based on New Super Short Scan Algorithm

Zhang Ruiqiu, Zhang Xianmin, Chen Zhong
Formal Model of Time for Analyzing Denial-of-Service Attacks ........................................... 580
Shin-ya Nishizaki, Ritsuya Ikeda

Research on Efficient Fast Digital Automatic Gain Control Circuit based on DSP ................. 589
Juming Cheng, Kuifu Wang

Efficient General Amplitude Model of Casing in Vibration Cementing ...................................... 597
Jun He, Han Li, Fuping Feng, Shuang Li, Yinlong Wang

Evaluation Model of Isolation Ability of Cement-formation Interface in Horizontal Well .......... 605
Fuping Feng, Jindan Yin, Chi Ai, Jinan Zhang, Jing Li

Research on Least Squares Problems of A Quaternion Matrix Equation ................................. 613
Shifang Yuan

Progressive Incremental Learning Algorithm of the Support Vector Machine SVM based on Cross Validation ........................................................................................................ 621
Bo Wen, Ganlin Shan, Xiusheng Duan

Feature Extraction and Classification for EEG Signals of Motor Imagery in Brain-Computer Interface .................................................................................................................. 628
Yue Chen, Shaobai Zhang

Chaotic Behavior of a Six-Mode Truncation of Rayleigh-Bénard Convection Model ................. 636
Zhen Li, Xinyu Lian, Wei Zhou

Ultimate Optimization for Irrigation Channel Distribution .......................................................... 644
Weizeng Gao, Zhou Yu, Hongyu Feng

Research on Refrigerator Assembly Factory System ................................................................. 652
Weizeng Gao, YueSheng Gu, Yanli Zu

Approximate Reduction Model of Electric Traction Supply System ........................................ 660
Ying Li, Donghui Li, Yaping Yu

Research of Tourism Information System Based on Mobile Network ....................................... 668
Fengbo Hou, Xin Du, Yanjia Hou

Study of Coefficient Effects of Excess Air on Combustion Performance of Marine Diesel Engine .......................................................................................................................... 676
WEI Haijun, XIE Haibo

Webpage Information Hiding Algorithm based on Integration of Tags and Data ..................... 684
Junling Ren

Empirical Study of Chinese Urban-Rural Income Gap and Heavy Industrial Relations .......... 692
Yanli Liu, Zhiyong Zhao, Yourong Wang
Mine-Used Variable-Frequency Synergy Drive Systems based on Intrinsic Safety Explosive-Proof Technology
Xuejun Li, Hao Long, Lifeng Chen

Study on Dynamic Response of Rotor System with Imbalance-Bending Coupling Faults
Xuejun. Li, Fuze. Xu, Guangbin. Wang, Yilin. He

Timber Tracking and Sales System based on Internet of Things with Barcode and Workflow
Li Dan, Gao Meng, Cao Yukun

Efficient Stock Forecast Scheme based on Partition Speed Method
Guobin Chen, Nanying Luo

Study on Influence of Anti-Inflammatory Activity of Prunus Tomentosa Thumb Total Flavone based on Orthogonal Test
XIONG Wei-wei, CHEN Li-hua, GUO Jing

Conversational Framework in Collaborative M-Learning based on Computer Multi-Agent System
Lin Hu, Honghua Xu, Ming Fang

Study of Non-Cognitive Factors on University Graduates Work Performance
Zhang Tiexiong, Wen Hongmei, Hu Siyuan

< PART4 >

Improved Game Theory-based Dynamic Spectrum Management in Cognitive Radio Networks
Long Tang, Ren Gao, Juebo Wu

Research on DC-Link Current and Capacitance of Static Excitation Regulator on a 12/3-Phase Dual Stator-Winding Induction Generator
Botao Zhang, Chuanlin Zhu, Dong Wang

Cointegration Analysis of Two Time Series using Linear Errors-In-Variables Model
Mengtian Yue, Huirong Cao

Research on P2P Botnet Modeling and Traffic Characteristic
Huabo Li, Guyu Hu, Yun Yang, Chenghui Zheng

Research on Minimum Energy Consumption in Cooperation WSN
Jianbin Xue, Ting Zhang, Wenhua Wang

3D Ship Shape Inspection Approach using Laser Vision Systems for Automatic Ship Loader
MI Chao, LIU Haiwei, ZHAO Ning, SHEN Yang
Research on Governance Efficiency of Family Business Financing Structure based on Malmquist Index and DEA Model .......................................................... Zhou Zhiqiang, Tian Yinhua, Wang Kexi, Liao Heping 803

Log-based Cloud Service Performance Maintenance Model .................................................. 811 WANG Xia, CHEN Jie

Research on Solid-State Ethanol Fermentation Using Sweet Sorghum Particles with CGMCC1949 yeast strain................................................................. Bing Han, Jihong Li, Shizhong Li, Chenyu Fan 819

The Landscape Features and Architectural Form of Large Exhibition Project.......................... 828 LIU Yu-rong, WANG An

Statistical-based Research On the Extraction Method of Neural Network Rule..................... 836 ZHANG You-zheng

Research on the Closed Loop Network Control System Based on Intelligent Delay Characteristics ........................................................................... Li Fang, Xia Yu 844

Empirical Error-based Kernel Parameters Optimization of SVM ........................................... 852 Qin Jun, Tong Xiaonian, Yunfei Yi

An Empirical Study on Comparative Analysis of Logistics Demand Forecasting Based on Neural Network and Grey Optimization Model ......................... Chunhua Ju, Rui Zhang, Changbing Jiang 859

Research on Agricultural Greenhouse Monitoring System Based on Wireless Sensor Network .......................................................... Han Qiao, Qin Ma, Jinhui Zhou, Xiongchun Duan, Mingli Li, Xin Zhu, Hao Lu 868

Numerical Simulation on Generator in New Solar Absorption Refrigeration System.......... Rong Li 875

Study on Online Banking Development based on Structured Equation Modeling ............... Zhengwei Ma, Jinkun Zhao, Ming Li 109

An Alternative Shrinkage Estimator in Linear Model .......................................................... Jiewu Huang 891

Deviation Mechanism and Correction Control of the Tandem Rolling Strap based on LPP Algorithm ........................................................................... 899
Guangbin Wang, Yilin He, Fuze Xu, Xanqiong Zhao

Research on Active Aided Knowledge System of Push-Pull Technology ........................................ 907
Yutang Wei, Ran Li, Xiat Zhang, Yaru Cui, Chunlei Xu

Computer Data Acquisition and Processing on Environmental Geophysics ................................. 915
Zhizheng ZHOU
Research on Fuzzy Ideal of Hilbert Algebras in BCK-algebras and Positive Implicative BCK-
algebras ............................................................................................................................................. 923
Zhang qiana, Jiang junna, Wang xinchun, Zhao chenxia

Study on Oil Film Static Performance of Sliding Bearings with Different Throttling Methods 931
Jiang Guiyun, Wang Yongqing

Efficient Classification Scheme of Tendency of Highway Emergency Telephone System......... 939
Xu Jia, Yuxin Liu, Liwei Zhu

Efficient Equipment Failure Management Scheme Based on Knowledge Integration............. 947
Chen Yan-guang, Zheng Tao

Job Shop Scheduling Scheme Based on Quantum Immune Algorithm........................................... 956
Hongguan Xue, Shengmin Wei, Lin Yang

The Airline Competitiveness Research Based on the Secondary Relative Evaluation and FAHP
Method ........................................................................................................................................... 964
Xin WANG, Chong WU

A Location Based Controlled Epidemic Multicast Routing for Delay Tolerant Networks ...... 972
Jianbo Li, Shan Jiang, Lei You, Chenqu Dai

< PART 5>
Recognizing Complex Lithology with Data Mining Technique ...................................................... 983
Ning Shi, Hongqi Li, Liping Zhu, Qiang Guo, Haining Zhang, Jinbin Wan, Fengbo Yu

A Calculation Method for Magnetic Field Intensity of Permanent Magnet ................................. 992
JIAO Xuejian, CHAI Shan, ZHANG Yuzeng

GIS-Based Spatial Statistical Analysis of College Graduates Employment .............................. 1000
Ruidai Tang

Video-based Face Recognition using Tensor and Feedback .......................................................... 1009
Jidong Zhao, Zhengming Ding

Commerce Image Retrieval Based on Features Combination .................................................... 1017
Wu Bin, Li Min, Wu Wen Tie

An Error Modified Grey Connotation Model for Forecasting Commodities Demand after Natural Disasters .................................................................................................................. 1026
Wang Zheng-xin

The Assessment Methods for the Teaching Quality in Modern Distance Education with Interval-Valued Intuitionistic fuzzy Information .................................................................................. 1034
Jinsheng Tan, Peng Liu

Gas Sensor of Working Face for Safety Monitoring based on SVM .................................................. 1042
Li Jianjun, Li Xibing, Zhang Shihua, Zhou Xianghong, Liu Junan

IoT-based Distributed Situation Awareness for Traffic Emergent Events .................................. 1050
Guo-Zhen TAN, Hao Wang, Yao Jiang

Design and Implementation of Robot with Features of Navigation and Obstacle Avoidance Automatically .............................................................................................................................. 1060
Xiaochen Lai, Xiaoliang Wang, Likun Li, Yanshuang Yao, Ying Zhao

Communication Risks of ATC Warning Information Release Decision based on Spectrum Analysis ........................................................................................................................................... 1068
Yang Zhi, Luo Fan, Yang Zhao

Research on Nonlinear Order Forecasting Method in HBTO Mode ................................................ 1077
Liu Yi, Yang Ming-zhong, Wang Tian-ri

Research on Path Optimization Problem for Parallel Multi-carousels System .......................... 1085
Xuefeng Zhao, Lin He, Jianqing Li, Jiang Hu, Jiawei Dong, Hang Yuan

Rim Hub Interference Fit Design and Analysis of the High-Speed Flywheel Rotor ............... 1094
Guangxi LI, Lin HE, Xuefeng ZHAO

Vulnerability Analysis and Simulation Study when Power Transmission Tower is Hit by Natural Disaster ........................................................................................................................................... 1102
Zhigang Liu, Zhengshi Li, Tong Han, Zoe Huang

Study on Precoding in High-Voltage Line Satellite Monitoring System .................................. 1110
Cao Xinli, Wang Xianjia, Zhu Ye, Wang Xianpei

Texture Image Classification Using Radon Transform-Based Invariant Moments ............... 1119
Jie Zhao, Binfeng Yang
Description and Measurement of Team Network Entropy ........................................ 1128
Huang Chao, Wang Ya-lin, Li Dong

Adaptive CPI Predictive Optimization Algorithms Based on Neural Network ............. 1137
Jing Zhu Li

Robust Real-time Super-resolution Images Reconstruction Technique .......................... 1145
Zhang Qunhui, Liu He-an, Beata

Ecological Environment Monitoring Model Based on the Internet of Things Sensing ....... 1152
Zhou Libo, Zhou Minghui, Becky

Image Scaling Acquisition Technology based on FPGA ........................................... 1160
Zhou Minghui, Kuang Zhike

Mobile P2P Web Service Geography Information Gathering and Sharing .................... 1168
Huang Tian, Camille

Multi-modal Function Optimization Algorithm based on Immune Genes ...................... 1176
Li Haiyan, Wang Yanping

Efficient Resource Allocation Scheme based on Immune Optimization in Wireless Sensor Networks ....................................................................................................... 1185
Liu He-an, Cassandra

Pedestrian Target Detection and Counting Tracking Based on Multi-camera .................. 1194
Liu Hean, Pablo

Froth Image Segmentation of Coal flotation Using Weighted Fuzzy C-mean Clustering by Two-dimensional Histogram ........................................................................ 1203
Muling TIAN, Jieming YANG

Analysis of Highly Intensified Diesel Engine Combustion Process ............................... 1211
Jianlong Zhai, Zengquan Wang, Tiexiong Su

Research of Improved Ant Colony Algorithm in Robot Path Planning ......................... 1219
Biao Lu

Research on Improved Semantic Algorithm Based on Path ........................................... 1227
Liao Wenjing, Sally Rafal