Table of Contents – Part II

Pattern Recognition

The Pattern Classification Based on Fuzzy Min-max Neural Network with New Algorithm 1
Dazhong Ma, Jinhai Liu, and Zhanshan Wang

Multi-class Classification with One-Against-One Using Probabilistic Extreme Learning Machine 10
Li-jie Zhao, Tian-you Chai, Xiao-kun Diao, and De-cheng Yuan

Similarity Measurement and Feature Selection Using Genetic Algorithm 20
Shangfei Wang, Shan He, and Hua Zhu

Entropic Feature Discrimination Ability for Pattern Classification Based on Neural IAL 30
Ting Wang, Sheng-Uei Guan, and Fei Liu

Design of Optimized Radial Basis Function Neural Networks Classifier with the Aid of Fuzzy Clustering and Data Preprocessing Method 38
Wook-Dong Kim, Sung-Kwun Oh, and Jeong-Tae Kim

An Efficient Histogram-Based Texture Classification Method with Weighted Symmetrized Kullback-Leibler Divergence 46
Yongsheng Dong and Jinwen Ma

The Recognition Study of Impulse and Oscillation Transient Based on Spectral Kurtosis and Neural Network 56
Qiaoge Zhang, Zhigang Liu, and Gang Chen

Forward Feature Selection Based on Approximate Markov Blanket 64
Min Han and Xiaoxin Liu

An Adaption of Relief for Redundant Feature Elimination 73
Tianshu Wu, Kunqing Xie, Chengkai Nie, and Guojie Song

Feature Selection of Frequency Spectrum for Modeling Difficulty to Measure Process Parameters 82
Jian Tang, Li-Jie Zhao, Yi-miao Li, Tian-you Chai, and S. Joe Qin

Nonnegative Dictionary Learning by Nonnegative Matrix Factorization with a Sparsity Constraint 92
Zunyi Tang and Shuxue Ding

Bibliografische Informationen
http://d-nb.info/1023016052

digitalisiert durch DEUTSCHE NATIONAL BIBLIOTHEK

A New Method for Hand Detection Based on Hough Forest 102
Dongyue Chen, Zongwen Chen, and Xiaosheng Yu

Multi-scale Convolutional Neural Networks for Natural Scene License Plate Detection 110
Jia Li, Changyong Niu, and Ming Fan

Robust Mean Shift Tracking with Background Information 120
Zhao Liu, Guiyu Feng, and Dewen Hu

Heart Sounds Classification with a Fuzzy Neural Network Method with Structure Learning 130
Lijuan Jia, Dandan Song, Linmi Tao, and Yao Lu

On Cortex Mechanism Hierarchy Model for Facial Expression Recognition: Multi-database Evaluation Results 141
Ting Zhang, Guosheng Yang, and Xinkai Kuai

LEFT–Logical Expressions Feature Transformation: A Framework for Transformation of Symbolic Features 149
Mehreen Saeed

A Time-Frequency Aware Cochlear Implant: Algorithm and System 159
Songping Mai, Yixin Zhao, Chun Zhang, and Zhihua Wang

Gradient Vector Flow Based on Anisotropic Diffusion 169
Xiaosheng Yu, Chengdong Wu, Dongyue Chen, Ting Zhou, and Tong Jia

ECG Classification Based on Non-cardiology Feature 179
Kai Huang, Liqing Zhang, and Yang Wu

Building High-Performance Classifiers Using Positive and Unlabeled Examples for Text Classification 187
Ting Ke, Bing Yang, Ling Zhen, Junyan Tan, Yi Li, and Ling Jing

A Modified Neural Network Classifier with Adaptive Weight Update and GA-Based Feature Subset Selection 196
Jinhai Liu and Zhibo Yu

Vision

A Study on Optimized Face Recognition Algorithm Realized with the Aid of Multi-dimensional Data Preprocessing Technologies and RBFNNs 205
Chang-Min Ma, Sung-Hoon Yoo, and Sung-Kwun Oh

Design of Face Recognition Algorithm Using Hybrid Data Preprocessing and Polynomial-Based RBF Neural Networks 213
Sung-Hoon Yoo, Sung-Kwun Oh, and Kisung Seo

Two-Phase Test Sample Representation with Efficient M-Nearest Neighbor Selection in Face Recognition 221
Xinjun Ma and Ning Wu

A Multiple Sub-regions Design of non-Classical Receptive Field 229
Hui Wei and Heng Wu

A New Method of Edge Detection Based on PSO 239
Dongyue Chen, Ting Zhou, and Xiaosheng Yu

Speed Limit Sign Recognition Using Log-Polar Mapping and Visual Codebook 247
Bing Liu, Huaping Liu, Xiong Luo, and Fuchun Sun

Image Processing

A Medical Image Fusion Method Based on Visual Models 257
Qu Jingyi, Jia Yunfei, and Du Ying

A Novel Method of River Detection for High Resolution Remote Sensing Image Based on Corner Feature and SVM 266
Ziheng Tian, Chengdong Wu, Dongyue Chen, Xiaosheng Yu, and Li Wang

Nature Image Feature Extraction Using Several Sparse Variants of Non-negative Matrix Factorization Algorithm 274
Li Shang, Yan Zhou, Jie Chen, and Wen-jun Huai

A Remote Sensing Image Matching Algorithm Based on the Feature Extraction 282
Chengdong Wu, Chao Song, Dongyue Chen, and Xiaosheng Yu

Robust Color Image Watermarking Using LS-SVM Correction 290
Panpan Niu, Xiangyang Wang, and Mingyu Lu

A Model of Image Representation Based on Non-classical Receptive Fields 297
Hui Wei, Zi-Yan Wang, and Qing-Song Zuo

Information Processing

Coevolving between Structure and Dynamics of Growing Networks 307
Yi Sui, Fengjing Shao, Rencheng Sun, and Shujing Li

Learning to Explore Spatio-temporal Impacts for Event Evaluation on Social Media 316
Chung-Hong Lee, Hsin-Chang Yang, Wei-Shiang Wen, and Cheng-Hsun Weng

Aspect and Sentiment Extraction Based on Information-Theoretic Co-clustering 326
Xianghua Fu, Yanyan Guo, Wubiao Guo, and Zhiqiang Wang

Exploratory Class-Imbalanced and Non-identical Data Distribution in Automatic Keyphrase Extraction 336
Weijian Ni, Tong Liu, and Qingtian Zeng

The Research on Fisher-RBF Data Fusion Model of Network Security Detection 346
Jian Zhou, Juncheng Wang, and Zhai Qun

Neurocontrol

Optimal Battery Management with ADHDP in Smart Home Environments 355
Danilo Fuselli, Francesco De Angelis, Matteo Boaro, Derong Liu, Qinglai Wei, Stefano Squartini, and Francesco Piazza

Robot Navigation Based on Fuzzy Behavior Controller 365
Hongshan Yu, Jiang Zhu, Yaonan Wang, Miao Hu, and Yuan Zhang

New Robust H_∞ Fuzzy Control for the Interconnected Bilinear Systems Subject to Actuator Saturation 376
Xinrui Liu, Dongsheng Yang, and Zhidong Li

Robust Constrained Constant Modulus Algorithm 386
Xin Song, Jinkuan Wang, Qiuming Li, and Han Wang

Data-Driven Integrated Modeling and Intelligent Control Methods of Grinding Process 396
Jiesheng Wang, Xianwen Gao, and Shifeng Sun

Direct Adaptive Neural Dynamic Surface Control of Uncertain Nonlinear Systems with Input Saturation 406
Junfang Li, Tieshan Li, Yongming Li, and Ning Wang

Adaptive Dynamic Surface Control of Uncertain Nonlinear Time-Delay Systems Based on High-Gain Filter Observer and Fuzzy Neural Networks 416
Yongming Li, Tieshan Li, and Shaocheng Tong

Time-Delay Wavelet Neural Networks Model with Application to Ship Control 424
Wenjun Zhang, Zhengjiang Liu, and Manfu Xue

Research on the Application Mechanism of Single Neuron SAC Algorithm in Feedforward Compensation System Based on Invariance Principle about Hot Strip Mill 433
Baoyong Zhao and Yixin Yin

H_∞ Robust Control for Singular Networked Control Systems with Uncertain Time-Delay 441
Junyi Wang, Huaguang Zhang, Jilie Zhang, and Feisheng Yang

A Model Reference Neural Speed Regulator Applied to Belt-Driven Servomechanism 451
Ming Huei Chu, Yi Wei Chen, Chun Yuan Wu, and Cheng Kung Huang

Model-Free Iterative Learning Control for Repetitive Impulsive Noise Using FFT 461
Yali Zhou, Yixin Yin, Qizhi Zhang, and Woonseng Gan

Research on Diagnosis Method of Predictive Control Performance Model Based on Data 468
Dakuo He, Shuai Shao, Pingyu Yang, and Shuning Zhang

Temperature Control in Water-Gas Shift Reaction with Adaptive Dynamic Programming 478
Yuzhu Huang, Derong Liu, and Qinglai Wei

Regenerative Braking Control Strategy for Electric Vehicle 488
Jia Wang, Yingchun Wang, and Mingjian Li

Recurrent Neural Network-Based Control for Wastewater Treatment Process 496
Junfei Qiao, Xiaoqi Huang, and Honggui Han

Neural Network Adaptive Control for Cooperative Path-Following of Marine Surface Vessels 507
Hao Wang, Dan Wang, Zhouhua Peng, Gang Sun, and Ning Wang

Vessel Steering Control Using Generalized Ellipsoidal Basis Function Based Fuzzy Neural Networks 515
Ning Wang, Zhiliang Wu, Chidong Qiu, and Tieshan Li

Fast Tracking Control of Three-Phase PWM Rectifier for Microturbine 525
Shijie Yan, Feng Wei, Heng Du, and Xiuchong Liu

Self-learning Control Schemes for Two-Person Zero-Sum Differential Games of Continuous-Time Nonlinear Systems with Saturating Controllers 534
Qinglai Wei and Derong Liu

Neuroadaptive Speed Assistance Control of Wind Turbine with Variable Ratio Gearbox (VRG) 544
Xue-fei Wang, Yong-duan Song, Dan-yong Li, Kai Zhang, Shan Xue, and Ming Qin

Novel Applications

Sentic Maxine: Multimodal Affective Fusion and Emotional Paths 555
Isabelle Hupont, Erik Cambria, Eva Cerezo, Amir Hussain, and Sandra Baldassarri

Heteroskedastic Regression and Persistence in Random Walks at Tokyo Stock Exchange 566
Katsuhiko Hayashi, Lukáš Pichl, and Taisei Kaizoji

Soft Measurement Modeling Based on Hierarchically Neural Network (HNN) for Wastewater Treatment 575
Junfei Qiao, Donghong Ren, and Honggui Han

Predictive Model of Production Index for Sugar Clarification Process by GDFNN 585
Shaojian Song, Jinchuan Wu, Xiaofeng Lin, and Huixia Liu

Energy Consumption Prediction in Ironmaking Process Using Hybrid Algorithm of SVM and PSO 594
Yanyan Zhang, Xiaolei Zhang, and Lixin Tang

An Energy Aware Approach for Task Scheduling in Energy-Harvesting Sensor Nodes 601
Marco Severini, Stefano Squartini, and Francesco Piazza, Member IEEE

A Projection Based Learning Meta-cognitive RBF Network Classifier for Effective Diagnosis of Parkinson's Disease 611
G. Sateesh Babu, S. Suresh, K. Uma Sangumathi, and H.J. Kim

CNN Hyperchaotic Synchronization with Applications to Secure Communication 621
Xiao-Dong Wang, Wei-Jun Li, and Ping Xiong

Parallel Decision Tree with Application to Water Quality Data Analysis 628
Qing He, Zhi Dong, Fuzhen Zhuang, Tianfeng Shang, and Zhongzhi Shi

Prediction of Biomass Concentration with Hybrid Neural Network 638
DaPeng Zhang, BaoHua Cheng, and AiGuo Wu

Short-Term Wind Power Prediction Based on Wavelet Decomposition and Extreme Learning Machine 645
Xin Wang, Yihui Zheng, Lixue Li, Lidan Zhou, Gang Yao, and Ting Huang

Fingerprint Enhancement Method Based on Wavelet and Unsharp Masking 654
Lijian Zhou, Junwei Li, Xuemei Cui, and Yunjie Liu

Author Index 665