

Jun Wang
Xiaofeng Liao
Zhang Yi (Eds.)

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The Chinese University of Hong Kong

Department of Automation and Computer-Aided Engineering

Shatin, New Territories, Hong Kong

E-mail: jwang@acae.cuhk.edu.hk

Xiaofeng Liao

Chongqing University, School of Computer Science and Engineering

Chongqing, 400044, China

E-mail: xfliao@cqu.edu.cn

Zhang Yi

University of Electronic Science and Technology of China

School of Computer Science and Engineering

Chengdu, Sichuan, China

E-mail: zhangyi@uestc.edu.cn

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Preface

This book and its sister volumes constitute the proceedings of the 2nd International Symposium on Neural Networks (ISNN 2005). ISNN 2005 was held in the beautiful mountain city Chongqing by the upper Yangtze River in southwestern China during May 30–June 1, 2005, as a sequel of ISNN 2004 successfully held in Dalian, China. ISNN emerged as a leading conference on neural computation in the region with increasing global recognition and impact. ISNN 2005 received 1425 submissions from authors on five continents (Asia, Europe, North America, South America, and Oceania), 33 countries and regions (Mainland China, Hong Kong, Macao, Taiwan, South Korea, Japan, Singapore, Thailand, India, Nepal, Iran, Qatar, United Arab Emirates, Turkey, Lithuania, Hungary, Poland, Austria, Switzerland, Germany, France, Sweden, Norway, Spain, Portugal, UK, USA, Canada, Venezuela, Brazil, Chile, Australia, and New Zealand). Based on rigorous reviews, 483 high-quality papers were selected by the Program Committee for presentation at ISNN 2005 and publication in the proceedings, with an acceptance rate of less than 34%. In addition to the numerous contributed papers, 10 distinguished scholars were invited to give plenary speeches and tutorials at ISNN 2005.

The papers are organized into many topical sections under 20 coherent categories (theoretical analysis, model design, learning methods, optimization methods, kernel methods, component analysis, pattern analysis, signal processing, image processing, financial analysis, system modeling, control systems, robotic systems, telecommunication networks, incidence detection, fault diagnosis, power systems, biomedical applications, and industrial applications, and other applications) spanning all major facets of neural network research and applications. ISNN 2005 provided an international forum for the participants to disseminate new research findings and discuss the state of the art. It also created a pleasant opportunity for the participants to interact and exchange information on emerging areas and future challenges of neural network research.

Many people made significant efforts to ensure the success of this event. The ISNN 2005 organizers are grateful to Chongqing University, Southwest Normal University, Chongqing University of Posts and Telecommunications, Southwest Agricultural University, and Chongqing Education College for their sponsorship; grateful to the National Natural Science Foundation of China for the financial support; and to the Asia Pacific Neural Network Assembly, the European Neural Network Society, the IEEE Computational Intelligence Society, and the IEEE Circuits and Systems Society for their technical co-sponsorship. The organizers would like to thank the members of the Advisory Committee for their spiritual support, the members of the Program Committee for reviewing the papers, and the members of the Publication Committee for checking the papers. The organizers would particularly like to thank the publisher, Springer, for their cooperation in publishing the proceedings as three volumes of the Lecture Notes

in Computer Science series. Last but not least, the organizers would like to thank all the authors for contributing their papers to ISNN 2005. Their enthusiastic contributions and participation were essential parts of the symposium with which the organizers were proud to be involved.

May 2005

Jun Wang
Xiaofeng Liao
Zhang Yi

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Table of Contents, Part III

12 Control Systems

NN-Based Iterative Learning Control Under Resource Constraints: A Feedback Scheduling Approach	1
<i>Feng Xia and Youxian Sun</i>	
Sequential Support Vector Machine Control of Nonlinear Systems by State Feedback	7
<i>Zonghai Sun, Youxian Sun, Xuhua Yang, and Yongqiang Wang</i>	
RBFNN-Based Multiple Steady States Controller for Nonlinear System and Its Application	15
<i>Xiugai Li, Dexian Huang, and Yihui Jin</i>	
Sliding Mode Control for Uncertain Nonlinear Systems Using RBF Neural Networks	21
<i>Xu Zha and Pingyuan Cui</i>	
Adaptive Backstepping Neural Network Control for Unknown Nonlinear Time-Delay Systems	30
<i>Weisheng Chen and Junmin Li</i>	
Multiple Models Adaptive Control Based on RBF Neural Network Dynamic Compensation	36
<i>Junyong Zhai and Shumin Fei</i>	
Stability Analysis and Performance Evaluation of an Adaptive Neural Controller	42
<i>Dingguo Chen and Jiaben Yang</i>	
Adaptive Inverse Control System Based on Least Squares Support Vector Machines	48
<i>Xiaojing Liu, Jianqiang Yi, and Dongbin Zhao</i>	
H-Infinity Control for Switched Nonlinear Systems Based on RBF Neural Networks	54
<i>Fei Long, Shumin Fei, and Shiyong Zheng</i>	
Neural Networks Robust Adaptive Control for a Class of MIMO Uncertain Nonlinear Systems	60
<i>Tingliang Hu, Jihong Zhu, Chunhua Hu, and Zengqi Sun</i>	

Adaptive Critic for Controller Malfunction Accommodation	69
<i>Gary G. Yen</i>	
Output Based Fault Tolerant Control of Nonlinear Systems Using RBF Neural Networks	79
<i>Min Wang and Donghua Zhou</i>	
Fault Tolerant Control of Nonlinear Processes with Adaptive Diagonal Recurrent Neural Network Model	86
<i>Ding-Li Yu, Thoonkhin Chang, and Jin Wang</i>	
Dealing with Fault Dynamics in Nonlinear Systems via Double Neural Network Units	92
<i>Yong D. Song, Xiao H. Liao, Cortney Bolden, and Zhi Yang</i>	
Neural Adaptive Singularity-Free Control by Backstepping for Uncertain Nonlinear Systems	98
<i>Zhandong Yu and Qingchao Wang</i>	
Parameter Estimation of Fuzzy Controller Using Genetic Optimization and Neurofuzzy Networks	107
<i>Sungkwun Oh, Seokbeom Roh, and Taechon Ahn</i>	
A Fuzzy CMAC Controller with Eligibility	113
<i>Zhipeng Shen, Chen Guo, Jianbo Sun, and Chenjun Shi</i>	
A Novel Intelligent Controller Based on Modulation of Neuroendocrine System . .	119
<i>Bao Liu, Lihong Ren, and Yongsheng Ding</i>	
Batch-to-Batch Optimal Control Based on Support Vector Regression Model	125
<i>Yi Liu, Xianhui Yang, Zhihua Xiong, and Jie Zhang</i>	
Nonlinear Predictive Control Based on Wavelet Neural Network Applied to Polypropylene Process	131
<i>Xiaohua Xia, Zhiyan Luan, Dexian Huang, and Yihui Jin</i>	
Neural Network Control of Heat Exchanger Plant	137
<i>Mahdi Jalili-Kharaajoo</i>	
Remote Controller Design of Networked Control Systems Based on Self-constructing Fuzzy Neural Network	143
<i>Yi Li, Qinke Peng, and Baosheng Hu</i>	
Sliding Mode Control for Cross Beam Simulation System via Neural Network . . .	150
<i>Hongchao Zhao, Qingjiu Xu, Wenjin Gu, and Tingxue Xu</i>	
Vibration Suppression of Adaptive Truss Structure Using Fuzzy Neural Network	155
<i>Shaoze Yan, Kai Zheng, and Yangmin Li</i>	

Experimental Investigation of Active Vibration Control Using a Filtered-Error Neural Network and Piezoelectric Actuators	161
<i>Yali Zhou, Qizhi Zhang, Xiaodong Li, and Woonseng Gan</i>	
Compensating Modeling and Control for Friction Using RBF Adaptive Neural Networks	167
<i>Yongfu Wang, Tianyou Chai, Lijie Zhao, and Ming Tie</i>	
Torque Control of Switched Reluctance Motors Based on Flexible Neural Network	173
<i>Baoming Ge, Anibal T. de Almeida, and Fernando J.T.E. Ferreira</i>	
Position Control for PM Synchronous Motor Using Fuzzy Neural Network	179
<i>Jun Wang, Hong Peng, and Xiao Jian</i>	
SVM Based Lateral Control for Autonomous Vehicle	185
<i>Hanqing Zhao, Tao Wu, Daxue Liu, Yang Chen, and Hangen He</i>	
Control of Reusable Launch Vehicle Using Neuro-adaptive Approach	192
<i>Yong D. Song, Xiao H. Liao, M.D. Gheorghiu, Ran Zhang, and Yao Li</i>	

13 Robotic Systems

A Neural Network Based on Biological Vision Learning and Its Application on Robot	198
<i>Ying Gao, Xiaodan Lu, and Liming Zhang</i>	
Discrete-Time Adaptive Controller Design for Robotic Manipulators via Neuro-fuzzy Dynamic Inversion	204
<i>Fuchun Sun, Yuangang Tang, Lee Li, and Zhonghang Yin</i>	
General Underactuated Cooperating Manipulators and Their Control by Neural Network	210
<i>S. Murat Yeşiloğlu and Hakan Temeltaş</i>	
Intelligent Fuzzy Q-Learning Control of Humanoid Robots	216
<i>Meng Joo Er and Yi Zhou</i>	
Performance Analysis of Neural Network-Based Uncalibrated Hand-Eye Coordination	222
<i>Jianbo Su</i>	
Formation Control for a Multiple Robotic System Using Adaptive Neural Network	228
<i>Yangmin Li and Xin Chen</i>	
Tip Tracking of a Flexible-Link Manipulator with Radial Basis Function and Fuzzy System	234
<i>Yuangang Tang, Fuchun Sun, and Zengqi Sun</i>	

Obstacle Avoidance for Kinetically Redundant Manipulators
Using the Deterministic Annealing Neural Network 240
Shubao Liu and Jun Wang

BP Networks Based Trajectory Planning and Inverse Kinematics
of a Reconfigurable Mars Rover 247
*Liping Zhang, Shugen Ma, Bin Li, Zheng Zhang, Guowei Zhang,
and Binggang Cao*

A Novel Path Planning Approach Based on AppART
and Particle Swarm Optimization 253
Jian Tang, Jihong Zhu, and Zengqi Sun

A Neuro-fuzzy Controller for Reactive Navigation
of a Behaviour-Based Mobile Robot 259
Anmin Zhu, Simon X. Yang, Fangju Wang, and Gauri S. Mittal

Research on the Calibration Method for the Heading Errors
of Mobile Robot Based on Evolutionary Neural Network Prediction 265
Jinxia Yu, Zixing Cai, Xiaobing Zou, and Zhuohua Duan

Adaptive Neural-Network Control
for Redundant Nonholonomic Mobile Modular Manipulators 271
Yangmin Li, Yugang Liu, and Shaoze Yan

A Neural Network-Based Camera Calibration Method
for Mobile Robot Localization Problems 277
Anmin Zou, Zengguang Hou, Lejie Zhang, and Min Tan

Abnormal Movement State Detection and Identification
for Mobile Robots Based on Neural Networks 285
Zhuohua Duan, Zixing Cai, Xiaobing Zou, and Jinxia Yu

A Neural Network Based Method for Shape Measurement
in Steel Plate Forming Robot 291
Hua Xu, Peifa Jia, and Xuegong Zhang

Recurrent Networks for Integrated Navigation 297
Jianguo Fu, Yingcai Wang, Jianhua Li, Zhenyu Zheng, and Xingbo Yin

14 Telecommunication Networks

Application of Different Basis and Neural Network Turbo Decoding Algorithm
in Multicarrier Modulation System over Time-Variant Channels 303
Yupeng Jia, Dongfeng Yuan, Haixia Zhang, and Xinying Gao

Blind Detection of Orthogonal Space-Time Block Coding
Based on ICA Schemes 309
Ju Liu, Bo Gu, Hongji Xu, and Jianping Qiao

Improvement of Borrowing Channel Assignment by Using Cellular Probabilistic Self-organizing Map	315
<i>Sitao Wu and Xiaohong Wang</i>	
FPGA Realization of a Radial Basis Function Based Nonlinear Channel Equalizer	320
<i>Poyueh Chen, Hungming Tsai, ChengJian Lin, and ChiYung Lee</i>	
Varying Scales Wavelet Neural Network Based on Entropy Function and Its Application in Channel Equalization	326
<i>Mingyan Jiang, Dongfeng Yuan, and Shouliang Sun</i>	
Robust Direction of Arrival (DOA) Estimation Using RBF Neural Network in Impulsive Noise Environment	332
<i>Hong Tang, Tianshuang Qiu, Sen Li, Ying Guo, and Wenrong Zhang</i>	
Quantum Neural Network for CDMA Multi-user Detection	338
<i>Fei Li, Shengmei Zhao, and Baoyu Zheng</i>	
A New QoS Routing Optimal Algorithm in Mobile Ad Hoc Networks Based on Hopfield Neural Network	343
<i>Jian Liu, Dongfeng Yuan, Song Ci, and Yingji Zhong</i>	
Content Filtering of Decentralized P2P Search System Based on Heterogeneous Neural Networks Ensemble	349
<i>Xianghua Fu and Boqin Feng</i>	
Collaborative Filtering Based on Neural Networks Using Similarity	355
<i>Eunju Kim, Myungwon Kim, and Joungwoo Ryu</i>	
Using Double-Layer One-Class Classification for Anti-jamming Information Filtering	361
<i>Qiang Sun, Jianhua Li, Xinran Liang, and Shenghong Li</i>	
Remote OS Fingerprinting Using BP Neural Network	367
<i>Wenwei Li, Dafang Zhang, and Jinmin Yang</i>	
Emotional Learning Based Intelligent Traffic Control of ATM Networks	373
<i>Mahdi Jalili-Kharaajoo, Mohammadreza Sadri, and Farzad Habibipour Roudsari</i>	
Multi-agent Congestion Control for High-Speed Networks Using Reinforcement Co-learning	379
<i>Kaoshing Hwang, Mingchang Hsiao, Chengshong Wu, and Shunwen Tan</i>	
Multi-scale Combination Prediction Model with Least Square Support Vector Machine for Network Traffic	385
<i>Zunxiong Liu, Deyun Zhang, and Huichuan Liao</i>	

Clustering Algorithm Based on Wavelet Neural Network Mobility Prediction
in Mobile Ad Hoc Network 391
Yanlei Shang, Wei Guo, and Shiduan Cheng

Internet Traffic Prediction by W-Boost: Classification and Regression 397
Hanghang Tong, Chongrong Li, Jingrui He, and Yang Chen

Fuzzy Neural Network for VBR MPEG Video Traffic Prediction 403
Xiaoying Liu, Xiaodong Liu, Xiaokang Lin, and Qionghai Dai

15 Incidence Detection

Building an Intrusion Detection System
Based on Support Vector Machine and Genetic Algorithm 409
*Rongchang Chen, Jeanne Chen, Tungshou Chen, Chunhung Hsieh,
Teyu Chen, and Kaiyang Wu*

Fusions of GA and SVM for Anomaly Detection in Intrusion Detection System .. 415
Dong Seong Kim, Ha-Nam Nguyen, Syng-Yup Ohn, and Jong Sou Park

A Genetic SOM Clustering Algorithm for Intrusion Detection 421
Zhenying Ma

Intrusion Detection Based on Dynamic Self-organizing Map Neural
Network Clustering 428
Yong Feng, Kaigui Wu, Zhongfu Wu, and Zhongyang Xiong

Intrusion Detection Based on MLP Neural Networks and K-Means Algorithm ... 434
Hongying Zheng, Lin Ni, and Di Xiao

Feature Selection and Intrusion Detection Using Hybrid Flexible Neural Tree ... 439
Yuehui Chen, Ajith Abraham, and Ju Yang

Detection of Epileptic Spikes with Empirical Mode Decomposition
and Nonlinear Energy Operator 445
Suyuan Cui, Xiaoli Li, Gaoxiang Ouyang, and Xinping Guan

Neural Networks for Solving On-Line Outlier Detection Problems 451
Tianqi Yang

Pedestrian Detection by Multiple Decision-Based Neural Networks 457
Chen Huang, Guangrong Tang, and Yupin Luo

A Visual Automatic Incident Detection Method on Freeway
Based on RBF and SOFM Neural Networks 463
Xuhua Yang, Qiu Guan, Wanliang Wang, and Shengyong Chen

A Self-organizing Map Method for Optical Fiber Fault Detection and Location .. 470
Yi Chai, Wenzhou Dai, Maoyun Guo, Shangfu Li, and Zhifen Zhang