



International Conference on Innovative Computing, Information and Control

Conference Venue: Beijing Jiaotong University, Beijing, China

Dates: August 30 – September 1, 2006

Conference Program

August 29, 2006

Registration	07:00-20:00
Tutorial	15:00-17:00
Welcome Reception at Central Garden Hotel	18:00-20:00

August 30, 2006

Registration	07:00-12:00
Opening	08:30-09:00
Keynote Speech A	09:10-10:00
Coffee Break	
Sessions A01-A06	10:20-12:20
Lunch	
Sessions A07-A12	14:00-16:00
Coffee Break	
Sessions A13-A18	16:20-18:20

August 31, 2006

Keynote Speech B	09:10-10:00
Coffee Break	
Sessions B01-B06	10:20-12:20
Lunch	
Sessions B07-B12	14:00-16:00
Coffee Break	
Sessions B13-B18	16:20-18:20
Banquet at Central Garden Hotel	19:00-21:00

September 1, 2006

Keynote Speech C	09:10-10:00
Coffee Break	
Sessions C01-C06	10:20-12:20
Lunch	
Sessions C07-C12	14:00-16:00
Coffee Break	
Sessions C13-C18	16:20-18:20

Farewell at Central Garden Hotel 18:30-19:30

- § **On August 29, 7:00 to 20:00, and August 30, 7:00 to 12:00,
Registrars at the North Lobby of Infor Building**
- § **At the other time of the conference,
Registrars at the 4th Floor of West Si Yuan Building**

Conference Program

August 30, 10:20-12:00

- Session A01: Power Systems Management and Control
- Session A02: Information Networking and Applications
- Session A03: Process Monitoring and Control (I)
- Session A04: System Identification, Modeling, and Simulation
- Session A05: Coding and Modulation
- Session A06: Evolutionary Computation

August 30, 14:00-15:40

- Session A07: Video-Based Security Surveillance
- Session A08: Image and Signal Processing Techniques for Advanced Object Recognition and Retrieval
- Session A09: Design and Implementation of Control Systems (I)
- Session A10: Computer Networking (I)
- Session A11: Fuzzy Systems and Applications (I)
- Session A12: Information Hiding and Security (I)

August 30, 16:00-17:40

- Session A13: Automation, Measurement and Control
- Session A14: Intelligent Data Analysis and Applications
- Session A15: Artificial Immune Systems (AIS) and Linear Matrix Inequality (LMI) Applications
- Session A16: Image Processing (I)
- Session A17: Design and Implementation of Control Systems (II)
- Session A18: Computer Networking (II)

August 31, 10:20-12:00

- Session B01: Innovative Embedded Computing
- Session B02: Information Sharing and Data/Text Mining and Discovery
- Session B03: Pattern Recognition and Classification (I)
- Session B04: Design and Implementation of Control Systems (III)
- Session B05: Fuzzy Systems and Applications (II)
- Session B06: Video Processing

August 31, 14:00-15:40

- Session B07: Emerging Approaches to Pervasive Applications

- Session B08: Fuzzy Reasoning and Its Applications
- Session B09: Signal Processing (I)
- Session B10: Neural Networks and Applications
- Session B11: Communication and Computer Networks
- Session B12: Management in Business and Industry

August 31, 16:00-17:40

- Session B13: Text Mining and Multimedia Data Mining Techniques and Applications
- Session B14: Nagoya University 21st Century COE Program on Media Integration for Intelligent Transport Systems
- Session B15: Design and Implementation of Control Systems (IV)
- Session B16: Data Mining and Knowledge Discovery
- Session B17: Image Processing (II)
- Session B18: Signal Processing (II)

September 1, 10:20-12:00

- Session C01: Fractional Fourier Transform and Its Applications
- Session C02: Multimedia Security and Applications
- Session C03: Signal Processing (III)
- Session C04: Process Monitoring and Control (II)
- Session C05: Pattern Recognition and Classification (II)
- Session C06: Database and Software Systems

September 1, 14:00-15:40

- Session C07: Integrated Control and Computing
- Session C08: Models and Algorithms for Optimization
- Session C09: Pattern Recognition and Classification (III)
- Session C10: Intelligent Systems
- Session C11: Neural Networks / Support Vector Machines
- Session C12: Information Hiding and Security (II)

September 1, 16:00-17:40

- Session C13: Control of Time-delay Systems
- Session C14: Informational and Mathematical Models on Biomedical Elements and Organs
- Session C15: Image Processing / Video Processing
- Session C16: Cross-discipline Technology (I)
- Session C17: Cross-discipline Technology (II)

Keynote Speech A

Theme: Watermarking, Steganography and Communications

Speaker: Prof. Ingemar J. Cox

University College London

Abstract

Digital watermarking and steganography are techniques for hiding information in media. For example, an imperceptible digital watermark is inserted into all DVD-audio products for the purpose of digital rights management. And there are many software programs that permit users to hide steganographic messages in innocuous images.

In this talk we will discuss the similarities and differences between digital watermarking and steganography. At first sight, these two forms of communication appear to be very similar and there are indeed common foundations to both. However, the requirements of watermarking and steganography are subtly different and these differences can lead to very different algorithmic designs.

We will also discuss communications models of watermarking and steganography. In particular, we will discuss how early models based on spread spectrum communications have now been superseded by more advanced models based on communications with side information.

Biography

Prof. Ingemar Cox is currently Professor and Chair of Telecommunications in the Departments of Electronic Engineering and Computer Science at University College London and Director of UCL's Adastral Park Postgraduate Campus. He is currently a holder of a Royal Society Wolfson Fellowship. He received his B.Sc. from University College London and Ph.D. from Oxford University. He was a member of the Technical Staff at AT&T Bell Labs at Murray Hill from 1984 until 1989 where his research interests were focused on mobile robots. In 1989 he joined NEC Research Institute in Princeton, NJ as a senior research scientist in the computer science division. At NEC, his research shifted to problems in computer vision and he was responsible for creating the computer vision group at NECI. He has worked on problems to do with stereo and motion correspondence and multimedia issues of image database retrieval and watermarking. In 1999, he was awarded the IEEE Signal Processing Society Best Paper Award (Image and Multidimensional Signal Processing Area) for a paper he co-authored on watermarking. From 1997-1999, he served as Chief Technical Officer of Signafy, Inc, a subsidiary of NEC responsible for the commercialization of watermarking. Between 1996 and 1999, he led the design of NEC's watermarking proposal for DVD video disks and later collaborated with IBM in developing the technology behind the joint "Galaxy" proposal supported by Hitachi, IBM, NEC, Pioneer and Sony. In 1999, he returned to NEC Research Institute as a Research Fellow. He is a senior member of the IEEE, a Fellow of the IEE and a Fellow of the Royal Society for Arts and Manufactures. He is on the editorial board of the Pattern Analysis and Applications Journal and an associate editor of the IEEE Trans. on Information Forensics and Security. He is co-author of a book entitled "Digital Watermarking" and the co-editor of two books, 'Autonomous Robots Vehicles' and 'Partitioning Data Sets: With Applications to Psychology, Computer Vision and Target Tracking'.

Session A01 (ICICIC-2006-IS01)

Session Title: Power Systems Management and Control

Session Chairs: Ming-Yuan Cho, Kaohsiung University of Applied Sciences, Taiwan

J. S. Wu, Kaohsiung University of Applied Sciences, Taiwan

A01-01 (ICICIC-2006-IS01-001)

To Approach Minimum Losses of the Distribution Systems by Artificial Neural Networks

Yen-Ming Tzeng and Shu-Yao Ho

Fortune Institute of Technology, Taiwan

A01-02 (ICICIC-2006-IS01-002)

The Development of Load Characteristics Information Network System to Improve the Estimated Efficiency of Load Synthesis in Taipower

J.C. Hwang, C.W. Huang, and C.T. Cheng

Kaohsiung University of Applied Sciences, Taiwan

A01-03 (ICICIC-2006-IS01-004)

The Development and Implementation of Optimum Load Control Strategy of Air Conditioner Based High Voltage Customers

Ming Yuan Cho, Tsair Fwu Lee, Shih Wei Kau, and Chien Nan Chen

Kaohsiung University of Applied Sciences, Taiwan

A01-04 (ICICIC-2006-IS01-005)

An Evolutionary-Based Approach for Outage Scheduling of Electrical Distribution Feeders

J.S. Wu, T.E. Lee, and K.S. Lo

Kaohsiung University of Applied Sciences, Taiwan

A01-05 (ICICIC-2006-IS01-006)

A New Algorithm of Face Recognition with Illumination Variation

Lifang Wu, Xiaoqing Zhao, Xiaoguang He, Ling Tu, and Jie Tian

Beijing University of Technology, China

A01-06 (ICICIC-2006-IS01-007)

A Method of Nonlinear Manifold Classification using ISOMAP

Lifang Wu, Ning Wei, Juanjuan Wang, and Yue Guo

Beijing University of Technology, China

A01-07 (ICICIC-2006-0908)

Fault Diagnosis of Power Transformers Using SVM/ANN with Clonal Selection Algorithm for Features and Kernel Parameters Selection

Ming-Yuan Cho, Tsair-Fwu Lee, Shih-Wei Kau, Chin-Shiuh Shieh, and Chao-Ji Chou

Kaohsiung University of Applied Science, Taiwan

A01-08 (ICICIC-2006-1065)

Intelligent Fault Isolation of Control Valves in a Power Plant

A.Ramezanifar, A. Afshar, and S.K. Yadavar Nikravesh

Amirkabir University of Technology, Iran

A01-09 (ICICIC-2006-0581)

Research of Multivariable GPC and Its Application in Thermal Power Plant

Peng Guo

North China Electric Power University, China

A01-10 (ICICIC-2006-0763)

Design of a Power System Stabilizer Using a new Recurrent Neural Network

Chun-Jung Chen and Tien-Chi Chen

Cheng Kung University, Taiwan

Session A02 (Invited Session ICICIC-2006-IS02)

Session Title: Information Networking and Applications

Session Chair: Takuo Nakashima, Kyushu Tokai University, Japan
Wei Kuang Lai, Sun Yat-sen University, Taiwan

A02-01 (ICICIC-2006-IS02-001)

Property Analysis of Heavy-Tailed Traffic by Simulator

Takuo Nakashima and Akari Ono
Kyushu Tokai University, Japan

A02-02 (ICICIC-2006-IS02-002)

A Detective Method for SYN Flood Attacks

Takuo Nakashima and Shunsuke Oshima
Kyushu Tokai University, Japan

A02-03 (ICICIC-2006-IS02-003)

Certificates Verification Based on Trust Matrix in PKI

Wen Zhao and San-ping Tang
Sichuan University, China

A02-04 (ICICIC-2006-IS02-004)

Research of SMB-Based Highly Distributed Data Acquisition System

Qichang Duang, Li Mao, Congli Zhang, and L. Zhang
Chongqing University, China

A02-05 (ICICIC-2006-IS02-005)

Time Scaling Property on Edge Routers

Takuo Nakashima
Kyushu Tokai University, Japan

A02-06 (ICICIC-2006-0739)

Local Hop-count Probability Grid: An Improvement Nodes Localization Scheme in WSN

Zude Zhou, Sheng Wang, and Quan Liu
Wuhan University of Technology, China

A02-07 (ICICIC-2006-0062)

Network Sensor and Its Application in Structure Health Monitoring System

Zhan-Feng Gao, Yan-Liang Du, Mu-Biao Su, and Biaoping Chen
Shijiazhuang Railway Institute, China

A02-08 (ICICIC-2006-0949)

A Vertex-arc-uni-Directional Adjustment Algorithm in Lifetime Optimization of Sensor Networks

Yantao Pan, Wei Peng, and Xicheng Lu
National University of Defense Technology, China

A02-09 (ICICIC-2006-1101)

An Improved MAC Protocol for Wireless Sensor Networks

Bichong Hou and Gang Zhu
Beijing Jiaotong University, China

A02-10 (ICICIC-2006-0553)

Bound on the Operational Lifetime of Ultra Wide Band Sensor Network

Juan Xu, Yongfa Hong, and Lin Chen
Tongji University, China

Session A03

Session Title: Process Monitoring and Control (I)

Session Chairs: Michael Basin, Autonomous University of Nuevo Leon, Mexico
Zhong Zhang, Toyohashi University of Technology, Japan

A03-01 (ICICIC-2006-0017)

Investigation on Human-simulation Intelligent Control of the Touch Force in Remote Welding Teleteaching

L. J. Liu, H.M. Gao, G.G. Zhang, and L.Wu

Harbin Institute of Technology, China

A03-02 (ICICIC-2006-0032)

Active Feedback Vibration Suppression of a Flexible Steel Cantilever Beam Using Smart Materials

Juntao Fei and Yunmei Fang

University of Akron, USA

A03-03 (ICICIC-2006-0112)

Adaptive Feedback-Feedforward Control for a Class of Nonlinear Chemical Processes

Li Jia and Min-Sen Chiu

Shanghai University, China

A03-04 (ICICIC-2006-0465)

The Application of Independent Component Analysis in Process Monitoring

Hongguang Li and Hui Guo

Beijing University of Chemical Technology, China

A03-05 (ICICIC-2006-0289)

Optimal Filtering for Linear System States over Polynomial Observations

Michael Basin and Joel Perez

Autonomous University of Nuevo Leon, Mexico

A03-06 (ICICIC-2006-0307)

Motion Synchronization System of Filament Winding Machine

Jiazhong Xu, Bo You, Deli Jia and Dongjie Li

Harbin University of Science and Technology, China

A03-07 (ICICIC-2006-0842)

Design and Simulation of Autonomous Control System of Satellite

Junhua Xiang and Yulin Zhang

National University of Defense Technology, China

A03-08 (ICICIC-2006-0846)

Measurements and Improvements of Conducted Electromagnetic Interference Emission Caused by the Switching Circuit

Yuh-Yih Lu, Zhi-Hua Chen, Chung-Hsiung Yeh, and Hsiang-Cheh Huang

Minghsin University of Science and Technology, Taiwan

A03-09 (ICICIC-2006-0536)

Hybrid Control Based on Improved Radial Basis Function Network for Electro-hydraulic Servo System

Peng Yang, Jun Xu, Jie He, Lihua Liang, and Guobin li

Harbin Engineering University, China

A03-10 (ICICIC-2006-0770)

Reducing Specular Reflection Components of Metallic Surfaces Using Photometric Linearization

Zhong Zhang, Shiqing Ren, Miyake Tetsuo, Hisanaga Fujiwara, and Takashi Imamura

Toyohashi University of Technology, Japan

Session A04

Session Title: System Identification, Modeling, and Simulation
Session Chairs: Lianming Sun, University of Kitakyushu, Japan
Peng Shi, University of Glamorgan, UK

A04-01 (ICICIC-2006-0122)

Parameter Estimation of DSSS Signals with Modified Fourth-Order Cumulants
Xiao-Ming Zhang and Zhong-Zhao Zhang
Harbin Institute of Technology, China

A04-02 (ICICIC-2006-0198)

A Symbolic Computational Method for Dynamic Simulation of Multibody Systems
Filip V. and Neagu A.
Valahia University of Targoviste, Romania

A04-03 (ICICIC-2006-0952)

An Algorithm for Identification of Reduced-Order Dynamic Models of Gas Turbines
Xuewu Dai, Tim Breikin, and Hong Wang
University of Manchester, UK

A04-04 (ICICIC-2006-0322)

Discussion and Prediction of Mechanical Properties for Single Layer ACSR
Fang Liu, Raymond D. Findlay, and Qiang Song
McMaster University, Canada

A04-05 (ICICIC-2006-1046)

State Estimation of a Boiler Using Nonlinear Observer
A. Ramezani, A. Afshar, and S.K. Yadavar Nikravesh
Amirkabir University of Technology, Iran

A04-06 (ICICIC-2006-1097)

Switched to B04

A04-07 (ICICIC-2006-1091)

Change Point Analysis for Sequence of Normal Means Based on Multiple Comparison Procedure
Tsunehisa Imada and Hideyuki Douke
Kyushu Tokai University, Japan

A04-08 (ICICIC-2006-0882)

Identification and Error Analysis in Frequency Domain
Lianming Sun and Akira Sano
The University of Kitakyushu, Japan

A04-09 (ICICIC-2006-0937)

Flame Feature Model Development and Its Application to Flame Detection
Tai-Fang Lu, Chien-Yuan Peng, Wen-Bing Horng, and Jian-Wen Peng
Providence University, Taiwan

A04-10 (ICICIC-2006-1077)

A New Hybrid Data Structure for 3D GIS
Huixin Wu and Huifeng Xue
Northwestern Polytechnical University, China

Session A05

Session Title: Coding and Modulation

Session Chair: Gwo-Jia Jong, Kaohsiung University of Applied Sciences, Taiwan
Huailin Cui, Northwestern Polytechnical University, China

A05-01 (ICICIC-2006-0202)

Two-dimensional Channel Estimation Based on Sliding Window for Digital Amplitude Modulation Broadcasting System

Jikang Wang and Heqin Zhou

University of Science and Technology of China, China

A05-02 (ICICIC-2006-0283)

A New Scheme Combining Space-time Bit Interleave Coded Modulation with Phase Sweeping

Tao Huang, Chaowei Yuan, and Chuanglu Sun

Beijing University of Posts and Telecommunications, China

A05-03 (ICICIC-2006-0296)

A Modified Sub-optimal Algorithm for Reducing PAPR of Multicarrier Communication Systems

Le Hu, Chisheng Li, and Guojin Wan

Nanchang University, China

A05-04 (ICICIC-2006-0118)

Joint Time and Frequency Analysis for Light Pulses in the Presence of Third Order Dispersion in Optical Fibers

Zhonglei Mei

Lanzhou University, China

A05-05 (ICICIC-2006-0829)

The Implementation of Adaptive LMS Clutter Cancellation based on FM Broadcast

Hong Wan, Shentang Li, and Zhigang Wang

Information Engineering University, China

A05-06 (ICICIC-2006-1104)

A Study of Weighted Signal Subspace Spatial Spectrum Estimation in Constant Beam Width Beam Space

Huailin Cui, Xi an Feng, and Zhishun Li

Northwestern Polytechnical University, China

A05-07 (ICICIC-2006-0789)

Unbalanced Exponent Modular Reduction over Binary Field and Its Implementation

Haibin Shen, Yier Jin, and Rongquan You

Zhejiang University, China

A05-08 (ICICIC-2006-0424)

An Efficient Euclidean Distance Estimation Scheme for Accelerating VQ Encoding

Chin-Chen Chang and Kuo-Lung Hung

Feng Chia University, Taiwan

A05-09 (ICICIC-2006-0532)

A Discrete Wavelet Transform Based State-codebook Search Algorithm for Vector Quantization

Chin-Chen Chang, Yung-Chen Chou, and Jau-Ji Shen

Feng Chia University, Taiwan

A05-10 (ICICIC-2006-0650)

A Novel Stopping Criterion for Turbo Decoding

Lei Li, Qin Wang, and Cheng Youn Lu

Beijing University of Science and Technology, China

Session A06

Session Title: Evolutionary Computation

Session Chairs: Junzo Watada, Waseda University, Japan

Alex K. B. See, Monash University, Malaysia

A06-01 (ICICIC-2006-0215)

Adaptive Clonal Selection with Elitism-Guided Crossover for Function Optimization

Jiang-qiang Hu, Chen Guo, Tie-shan Li, and Jian-chuan Yin

Dalian Maritime University, China

A06-02 (ICICIC-2006-0479)

An Ant Colony Optimization Algorithm for Multiple Travelling Salesman Problem

Junjie Pan and Dingwei Wang

Northeastern University, China

A06-03 (ICICIC-2006-0542)

GA-Optimized Wavelet Neural Networks for System Identification

Jinhua Xu

East China Normal University, China

A06-04 (ICICIC-2006-0543)

A New Fault Diagnosis Model Based on AIR Scheme

Gui-hong Zhou, Chun-cheng Zuo, Jia-zhong Wang, and Shu-xia Liu

Jilin University, China

A06-05 (ICICIC-2006-0717)

A Preliminary Study on Constructing Decision Tree with Gene Expression Programming

Weihong Wang, Qu Li, Shanshan Han, and Hai Lin

Zhejiang University of Technology, China

A06-06 (ICICIC-2006-0972)

Improved Genetic & Ant Colony Optimization Algorithm for Regional Air Defense WTA Problem

Tiao-Ping Fu, Yu-Shu Liu, and Jian-Hua Chen

Beijing Institute of Technology, China

A06-07 (ICICIC-2006-1031)

The Evolution of Cooperation in Heterogeneous Population

Yang Chen and Yong Zhao

HuaZhong University of Science and Technology, China

A06-08 (ICICIC-2006-1055)

An Artificial Immune System Model for Multi Agents based Resource Discovery in Distributed Environments

Ki-Won Yeom and Ji-Hyung Park

Korea Institute of Science and Technology, Korea

A06-09 (ICICIC-2006-1083)

An Enhanced Method for the Snake Algorithm

Charles C. H. Lean, Alex K. B. See, and S. Anandan Shanmugam

Monash University, Malaysia

A06-10 (ICICIC-2006-1105)

Bio-Soft Computing Approach to Elevator Dispatching Problem

Don Jyh-Fu Jeng, Ikno Kim, and Junzo Watada

Waseda University, Japan

Session A07 (Invited Session ICICIC-2006-IS03)

Session Title: Video-Based Security Surveillance

Session Chair: Chao-Ho Chen, Kaohsiung University of Applied Sciences, Taiwan
Baozong Yuan, Beijing Jiaotong University, China

A07-01 (ICICIC-2006-IS03-001)

An Effective Authenticating Method on the Compressed Image Data

Tsong-Yi Chen, Da-Jinn Wang, Thou-Ho Chen, and Chung-Yih Lee
Kaohsiung University of Applied Sciences, Taiwan

A07-02 (ICICIC-2006-IS03-002)

A Robust Geometry-based Watermarking Scheme for 3D Meshes

Zhen Li, Wei-Min Zheng, and Zhe-Ming Lu
Harbin Institute of Technology, China

A07-03 (ICICIC-2006-IS03-003)

An Impulse Noise Reduction Method by Adaptive Pixel-correlation

Thou-Ho (Chao-Ho) Chen, Chao-Yu Chen, and Tsong-Yi Chen
Kaohsiung University of Applied Sciences, Taiwan

A07-04 (ICICIC-2006-IS03-004)

A DCT-Based Video Object Segmentation Algorithm for Rainy Situation Using Change Detection

Da-Jinn Wang, Thou-Ho (Chao-Ho) Chen, Hung-Shiuan Liau, and Tsong-Yi Chen
Kaohsiung Marine University Kaohsiung, Taiwan

A07-05 (ICICIC-2006-IS03-005)

SVD Based Blind Image Watermarking Algorithm

Wenhai Kong, Bian Yang, Di Wu, and Xiamu Niu
Harbin Institute of Technology, China

A07-06 (ICICIC-2006-0740)

Steganography in Compressed Video Stream

Changyong Xu, Xijian Ping, and Tao Zhang
Zhengzhou Information Science and Technology Institute, China

A07-07 (ICICIC-2006-0054)

Efficient Techniques for Signalling Intra Prediction Modes of H.264/Mpeg-4 Part 10

Jamil-ur-Rehman and Zhang Ye
Harbin Institute of Technology, China

A07-08 (ICICIC-2006-0073)

Modeling of MPEG Video Sequence Based on Mixture-Exponential

Yan Huo, Tao Jing, and Yumin Feng
Beijing Jiaotong University, China

A07-09 (ICICIC-2006-0184)

Super-Resolution Reconstruction of Compressed Video Based on Adaptive Quantization Constraint Set

Xu Zhong-qiang and Zhu Xiu-chang
Nanjing University of Posts and Telecommunications, China

A07-10 (ICICIC-2006-0203)

Film-to-Video Conversion with Scene Cut Detection

Chung-chi Lin, Ming-Hwa Sheu, Huann-keng Chiang, Chishyan Liaw, and Ming-che Chen
Yunlin University of Science and Technology, Taiwan

Session A08 (Invited Session ICICIC-2006-IS04)

Session Title: Image and Signal Processing Techniques for Advanced Object Recognition and Retrieval

Session Chair: Hiromitsu Hama, Osaka City University, Japan

Zhenfeng Zhu, Beijing Jiaotong University, China

A08-01 (ICICIC-2006-IS04-001)

A Method of Calculating Image Saliency and of Optimizing Efficient Distribution of Image Windows

Takashi Toriu and Shigeyoshi Nakajima

Osaka City University, Japan

A08-02 (ICICIC-2006-IS04-002)

Measurement of a Translation and a Rotation of a Tooth after an Orthodontic Treatment using GA

S. Nakajima, H. Arimoto, H. Rensha, and T. Toriu

Osaka City University, Japan

A08-03 (ICICIC-2006-IS04-003)

Timbre Analysis and Synthesis of Stringed Musical Instruments

Kunihiro Yasuda and Hiromitsu Hama

Osaka City University, Japan

A08-04 (ICICIC-2006-IS04-004)

Thin-type Three-dimensional Display Based on the Reconstruction of Parallax Rays

Hideya Takahashi, Manabu Chikayama, and Hiromitsu Fujinami

Osaka City University, Japan

A08-05 (ICICIC-2006-IS04-005)

A Dynamic Recognition of Human Actions and Related Objects

Masahiro Saitou, Atsuhiko Kojima, Tadahiro Kitahashi, and Kunio Fukunaga

Osaka Prefecture University, Japan

A08-06 (ICICIC-2006-IS04-006)

Building Maps of Unknown Environment through Observation of Human Actions

Masakatsu Mitani, Mamoru Takaya, Atsuhiko Kojima, and Kunio Fukunaga

Osaka Prefecture University, Japan

A08-07 (ICICIC-2006-IS04-007)

Three-dimensional Object Recognition Using Multiplex Complex Amplitude Information with Support Function

Nobukazu Yoshikawa and Yukie Ii

Saitama University, Japan

A08-08 (ICICIC-2006-0016)

De-noising with Novel DWT-PNNGMM for Speaker Recognition

Zhengquan Qiu and Junxun Yin

South China University of Technology, China

A08-09 (ICICIC-2006-0121)

Image Features Detection and Matching Based on SUSAN Method

Muyun Weng and Mingyi He

Northwestern Polytechnical University, China

A08-10 (ICICIC-2006-0148)

Palmprint Recognition Based on 2-Dimension PCA

Junwei Tao, Wei Jiang, Zan Gao, Shuang Chen, and Chao Wang

Shandong University, China

Session A09

Session Title: Design and Implementation of Control Systems (I)

Session Chair: Sheng Liu, Harbin Engineering University, China

Lin Hong, Kaohsiung University of Applied Sciences, Taiwan

A09-01 (ICICIC-2006-0385)

Application of Optimized EKF in Direct Torque Control System of Induction Motor

Zhengyun Ran, Huade Li, and Shujin Chen

Beijing University of Science and Technology, China

A09-02 (ICICIC-2006-0402)

The Direct Approach to Unified GPC Based on ARMAX/CARIMA/CARMA Model and Application for Pneumatic Actuator Control

Qiang Song and Fang Liu

Hangzhou Dianzi University, China

A09-03 (ICICIC-2006-0484)

Proposal of Incremental Sliding Mode Control

Yinxing Hao, Jianqiang Yi, Dongbin Zhao, and Wei Wang

Chinese Academy of Sciences, China

A09-04 (ICICIC-2006-0491)

A Novel Predictive Control and Its Application on Water Level System of Ship Boiler

Sheng Liu and Yanyan Li

Harbin Engineering University, China

A09-05 (ICICIC-2006-0534)

A Stochastic Maximum Principle for Systems with Jumps

Qimin Zhang and Xining Li

NingXia University, China

A09-06 (ICICIC-2006-0559)

Research on Boiler Drum Dynamic Model with Bond Graph

Xiyun Yang, Yuegang Lv, and Daping Xu

North China Electric Power University, China

A09-07 (ICICIC-2006-0562)

Controllability analysis based on Bond Graph

Xiyun Yang, Xiaojuan Han, Yibing Liu, and Daping Xu

North China Electric Power University, China

A09-08 (ICICIC-2006-0565)

Output Feedback Controllers Synthesis with Practical Pole Clustering for Descriptor Systems

Ching-Hsiang Lee, Lin Hong, Chun-Hsiung Fang, and Boris T. Polyak

Kaohsiung University of Applied Sciences, Taiwan

A09-09 (ICICIC-2006-0570)

Design of the Intelligent Control System of Telerobot Based on Virtual Reality

Feng Cui, Minglu Zhang, and Shenghui Guo

Hebei University of Technology, China

A09-10 (ICICIC-2006-0619)

Minimum Entropy Control Algorithm for General Dynamic Stochastic Systems

Jianfang Jia, Taiyuan Liu, Hong Yue, and Hong Wang

Chinese Academy of Sciences, China

Session A10

Session Title: Computer Networking (I)

Session Chairs: Chin-Shiuh Shieh, Kaohsiung University of Applied Sciences, Taiwan
Jiun-Huei Ho, Cheng-Shiu University, Taiwan

A10-01 (ICICIC-2006-0214)

Design of Maximizing Clustered Sensor Network Lifetime

Yan-Liang Jin and Yi-Fan Jiang
Shanghai University, China

A10-02 (ICICIC-2006-0349)

Adaptive Scheduler to Improve QoS in IEEE 802.11e Wireless LANs

Rongbo Zhu and Yuhang Yang
Shanghai Jiao Tong University, China

A10-03 (ICICIC-2006-0373)

The Strategy and Method of QoS Parameter Processing for Grid Service Matchmaking

Kai-Jian Liang, Quan Liang, and Yang Yang
Hunan Institute of Engineering, China

A10-04 (ICICIC-2006-0457)

A Common Ontology-based Intelligent Configuration Management Model for IP Network Devices

Hui Xu and Debao Xiao
Central China Normal University, China

A10-05 (ICICIC-2006-1073)

New Traitor Tracing Scheme against Anonymous Attack

Chen Yang, Wenping Ma, and Xinmei Wang
Xidian University, China

A10-06 (ICICIC-2006-0445)

Using Machine Learning to Allocate Parallel Workload

Shun Long
JiNan University, China

A10-07 (ICICIC-2006-0903)

An Energy-Aware Routing Scheme with Node Relay Willingness in Wireless Sensor Networks

Huifang Chen, Hiroshi Mineno, and Tadanori Mizuno
Zhejiang University, China

A10-08 (ICICIC-2006-0611)

Game Based Flow Rate Control for Networks

Bocheng Zhong, Jianghong Han, Zhaofang Du, Yuan Ming, and Ming Tan
Hefei University of Technology, China

A10-09 (ICICIC-2006-0660)

Achieving Pareto-Efficient Bandwidth Allocations Using a Non-Monetary Mechanism

André Riedel and Timo Fischer
University of Göttingen, Germany

A10-10 (ICICIC-2006-0690)

Multi-Path QoS Routing with Power Control in TDMA-based Mobile Ad Hoc Networks

Yuan Li, XinMeng Chen, and Dan Yu
Wuhan University, China

Session A11

Session Title: Fuzzy Systems and Applications (I)

Session Chair: Jianqiang Yi, Chinese Academy of Sciences, China

Ansheng Deng, Beijing Jiaotong University, China

A11-01 (ICICIC-2006-0013)

Fuzzy Neural Network for Evaluating Sensor Task Priorities

HUANG Shucui, LI Weimin, and LI Wei

Air Force Engineering University, China

A11-02 (ICICIC-2006-0066)

Stable and Quadratic Optimal Fuzzy PDC Control for TS-Fuzzy-Model-Based Control Systems

Wen-Hsien Ho and Jyh-Horng Chou

Kaohsiung First University of Science and Technology, Taiwan

A11-03 (ICICIC-2006-0098)

Fuzzy Capacitated Location-allocation Problem with Minimum Risk Criteria

Yan-Kui Liu and Xiao-Liang Zhu

Hebei University, China

A11-04 (ICICIC-2006-0226)

Fuzzy Iterative Learning Control for Nonlinear Systems with Missing Data

Fenghuang Cai, Wu Wang, and Fuwen Yang

Fuzhou University, China

A11-05 (ICICIC-2006-0244)

Research on a Fuzzy Controller for Hyperbaric Chamber

Shengzhi Yuan, Xiaofang Xie, Tao Sun, and Guang Hu

Naval Aeronautical Engineering Institute, China

A11-06 (ICICIC-2006-0258)

Study of Fuzzy Generalized Predictive Control Algorithm on Nonlinear Systems

Qiang Li, Baocun Qu, Zhiqiang Ge, and Xisheng Zhan

Liaoning University of Petroleum and Chemical Technology, China

A11-07 (ICICIC-2006-0301)

Inverse α -Cuts and Interval $[a,b]$ -Cuts

Zhaohao Sun and Jun Han

University of Wollongong, Australia

A11-08 (ICICIC-2006-0304)

Fuzzy Sliding Mode Constrained Input Control for Robotic Manipulators Based on Systemic State

Wang Xin and Wei-Dong Chen

Yanshan University, China

A11-09 (ICICIC-2006-0347)

Fuzzy-Rough Set Aided Sentence Extraction Summarization

Hsun-Hui Huang, Yau-Hwang Kuo, and Horng-Chang Yang

Cheng Kung University, Taiwan

A11-10 (ICICIC-2006-0382)

Synchronized Control of Dual Linear Motors Position Servo System Based on Fuzzy Self-learning Compensation

Dongmei Yu, Qingding Guo and Qing Hu

Shenyang University of Technology, China

Session A12

Session Title: Information Hiding and Security (I)

Session Chairs: Zhengding Qiu, Beijing Jiaotong University, China

Lee Ming Cheng, City University of Hong Kong, HK

A12-01 (ICICIC-2006-0140)

Information Hiding in Text Using Typesetting Tools with Stego-Encoding

Chao Chen, Shuozhong Wang, and Xinpeng Zhang

Shanghai University, China

A12-02 (ICICIC-2006-0144)

A Scalable De-centralized Multicast Key Management Scheme

Yanyan Xu, Zhengquan Xu, Xi Chen, and Zhanwu Yu

Wuhan University, China

A12-03 (ICICIC-2006-0172)

Linkability of Two Blind Signature Schemes

Jianhong Zhang and Wei Zou

Peking University, China

A12-04 (ICICIC-2006-0173)

An Improved Anonymous ID-based Key Issuing Protocol

Yongquan Cai and Xiang Yan

Beijing University of Technology, China

A12-05 (ICICIC-2006-0180)

Based upon RBTC and LSB Substitution to Hide Data

Ching-Yu Yang

Penghu University, Taiwan

A12-06 (ICICIC-2006-0330)

Improvement of Threshold Signature Scheme Using Self-Certified Public Key

Jiguo Li, Yichen Zhang, and Zhijian Wang

Hohai University, China

A12-07 (ICICIC-2006-0483)

Information Hiding Using Secret Sharing Scheme

Xinguang Zou and Shenghe Sun

Harbin Institute of Technology, China

A12-08 (ICICIC-2006-0555)

Simplex Image Watermarking Resistant to RST Based on Radon Transform

Chun-e Zhang, Zhengding Qiu, and Dongmei Sun

Beijing Jiaotong University, China

A12-09 (ICICIC-2006-0563)

An Enhanced Chaos Based Image Encryption Algorithm

Guosheng Gu and Guoqiang Han

South China University of Technology, China

A12-10 (ICICIC-2006-0610)

Image Watermarking Robust to Print and Generation Copy

Ping Chen, Yao Zhao, and Jeng-Shyang Pan

Beijing Jiaotong University, China

Session A13 (Invited Session ICICIC-2006-IS05)

Session Title: Automation, Measurement and Control

Session Chair: Juhng-Perng Su, Yunlin University of Science and Technology, Taiwan
Ker-Wei Yu, National Kaohsiung Marine University, Taiwan

A13-01 (ICICIC-2006-IS05-001)

Fuzzy Gain Scheduled Integral Control and Its Application to a Hovercraft Vessel with Uncertainties

Chun-Chieh Wang and Juhng-Perng Su

Chienkuo Technology University, Taiwan

A13-02 (ICICIC-2006-IS05-003)

Design of a Cascade Hybrid Fuzzy Terminal Sliding Mode Controller for an Electro-hydraulic Position Servo System

Hong-Ming Chen and Juhng-Perng Su

Chienkuo Technology University, Taiwan

A13-03 (ICICIC-2006-IS05-004)

A Lyapunov Function Approach to Maximum Torque Control for Synchronous Reluctance Motor Speed Drive

Huann-Keng Chiang and Chien-An Chen

Yunlin University of Science and Technology, Taiwan

A13-04 (ICICIC-2006-IS05-005)

Applying Fuzzy Logic Control to an Electric Bicycle

Chi-Ying Liang, Wai-Hon Lin and Bruce Chang

Wu Feng Institute of Technology, Taiwan

A13-05 (ICICIC-2006-IS05-006)

Nonlinear Robust Control of a Magnetic Levitation System

Ting-En Lee, Juhng-Perng Su, and Ker-Wei Yu

Yunlin University of Science and Technology, Taiwan

A13-06 (ICICIC-2006-0137)

Sensing and Control for Geometry Stability of the Melt Pool and the Cross Sectional Area in Laser Cladding

Liangliang Nan, Weijun Liu, and Liangliang Nan

Chinese Academy of Sciences, China

A13-07 (ICICIC-2006-0190)

A Time-Series Data Analyzing System Using a New Time-Frequency Transform

Yih-Nen Jeng and You-Chi Cheng

Cheng Kung University, Taiwan

A13-08 (ICICIC-2006-0191)

A Matlab-based Simulation of System Stability in Frequency-field Analysis

Zhigang Xu and Changsheng Xu

Wuhan University of Technology, China

A13-09 (ICICIC-2006-0278)

The Application of Optimal Control Theory in Stabilizing Mine Grid

Xin Gao and Gongxun Yang

China University of Mining and Technology, China

A13-10 (ICICIC-2006-0279)

Supervised Robustly Feasible Soft Switching Model Predictive Control with Polytopic Uncertainty

Jingsong Wang

University of Birmingham, UK

Session A14 (Invited Session ICICIC-2006-IS06)

Session Title: Intelligent Data Analysis and Applications

Session Chairs: Tzung-Pei Hong, University of Kaohsiung, Taiwan
Jamal Ameen, University of Glamorgan, UK

A14-01 (ICICIC-2006-IS06-001)

Particle Swarm Optimization for Control of Nonlinear Dynamics

Jiann-Horng Lin

I-Shou University, Taiwan

A14-02 (ICICIC-2006-IS06-002)

A Revised EM-Like Algorithm + K-OPT Methods for Solving the Traveling Salesman Problem

Peitsang Wu, Kung-Jiuan Yang, and Hsing-Chieh Fang

I-Shou University, Taiwan

A14-03 (ICICIC-2006-IS06-003)

A Kernel-based Fuzzy Clustering Algorithm

Jiun-Hau Wang, Wan-Jui Lee, and Shie-Jue Lee

National Sun Yat-Sen University, Taiwan

A14-04 (ICICIC-2006-IS06-004)

The Self-study and Auto-control Model of Machine's Lifetime Learning Based on Database

Qichang Duan, Hongbo Jin, and Li Zhane

Chongqing University, China

A14-05 (ICICIC-2006-IS06-005)

A Genetic Approach for Coordinate Transformation of GPS Signals

Chih-Hung Wu, Hung-Ju Chou, Wei-Han Su

University of Kaohsiung, Taiwan

A14-06 (ICICIC-2006-IS06-006)

Integration of Genetic Algorithm and Neural Network for Financial Early Warning System: An Example of Taiwanese Banking Industry

Jih-Chang Hsieh, Pei-Chann Chang, and Shih-Hsin Chen

Vanung University, Taiwan

A14-07 (ICICIC-2006-IS06-007)

Ontology-based Knowledge Retrieval in Organizational Memory

Kung-Jiuan Yang and Yuh-Min Chen

Fortune Institute of Technology, Taiwan

A14-08 (ICICIC-2006-IS06-008)

Maintenance of Fast Updated Frequent Pattern Trees for Record Modification

Tzung-Pei Hong, Jun-Wei Lin, and Yu-Lung Wu

University of Kaohsiung, Taiwan

A14-09 (ICICIC-2006-IS06-009)

Mining Time Series for Identifying Unusual Sub-sequences with Applications

Jamal Ameen and Rawshan Basha

University of Glamorgan, UK

A14-10 (ICICIC-2006-0974)

Extension Set and the Dependent Function of System Model

Yinai Sun, Yongquan Yu, Wen Cai, and Guangqiang Li

Guang Dong University of Technology, China

Session A15 (Invited Session ICICIC-2006-IS14)

Session Title: Artificial Immune Systems (AIS) and Linear Matrix Inequality (LMI) Applications

Session Chair: Te-Jen Su, Kaohsiung University of Applied Sciences, Taiwan

Ki-Won Yeom, Korea Institute of Science and Technology, Korea

A15-01 (ICICIC-2006-IS14-001)

Optimum Design Course Supported by AIS Algorithm for Undergraduate Students

Wen-Jye Shyr and Chien-Yu Lu

Changhua University of Education, Taiwan

A15-02 (ICICIC-2006-IS14-002)

Particle Swarm Optimization for Image Noise Cancellation

Yue-Cheng Chen, Hsin-Chih Wang, and Te-Jen Su

Kaohsiung University of Applied Sciences, Taiwan

A15-03 (ICICIC-2006-IS14-003)

A New Delay-Dependent Approach to Robust Stability for Uncertain Hybrid Bidirectional Associative Memory

Neural Networks with Time-Varying Delays

Chien-Yu Lu, Te-Jen Su, and Wen-Jye Shyr

Changhua University of Education, Taiwan

A15-04 (ICICIC-2006-IS14-004)

Robust Stabilization for Uncertain Time-Delay Systems with Delay-Dependence

Pin-Lin Liu, Tung-Yi Lu, and I-Chang Chen

Chien-Kuo Technology University, Taiwan

A15-05 (ICICIC-2006-IS14-005)

Optimal Design of Lossless Passive Snubber for DC/DC Converters

C. K. Huang, C.T. Chen, H. H. Nien, S.K. Changchien, and H.W. Shieh

Chien-Kuo Technology University, Taiwan

A15-06 (ICICIC-2006-IS14-006)

The Separation System of the Speech Signals Using Kalman Filter with Fuzzy Algorithm

Yu-Jen Chen, Chin-Chang Wang, Gwo-Jia Jong, and Boi-Wei Wang

Kaohsiung University of Applied Sciences, Taiwan

A15-07 (ICICIC-2006-0009)

Neuro-Fuzzy and Digital FIR Filter Approach for Power System Measurement Denoising

Jiekang Wu, Ying Liang, and Guotong Chen

Guangxi University, China

A15-08 (ICICIC-2006-0274)

Optimization of Soft Morphological Filter based on Tabu Search

Zhao Chun-Hui, Liang Gang-Jian, and Ning Hai-Chun

Harbin Engineering University, China

A15-09 (ICICIC-2006-1080)

FIR Digital Filters Design Based on Quantum-behaved Particle Swarm Optimization

Wei Fang, Jun Sun, Wenbo Xu, and Jing Liu

Southern Yangtze University, China

A15-10 (ICICIC-2006-0714)

Pitch Detection with Fuzzy Computation

Mangui Liang, Qi Hu, Jie Peng, and Guoqiao Yu

Beijing Jiaotong University, China

Session A16

Session Title: Image Processing (I)

Session Chair: Bin-Yih Liao, Kaohsiung University of Applied Sciences, Taiwan
Shaohai Hu, Beijing Jiaotong University, China

A16-01 (ICICIC-2006-0315)

A New Wavelet Fitting Method for Geometric Correction

Shuang-Bo Fei and Rui-Zhen Zhao
Beijing Jiaotong University, China

A16-02 (ICICIC-2006-0316)

Algorithm for Medical Image Patching Based on Mutual Information

Shaohai Hu, Likuan Wang, and Shuwen Xu
Beijing Jiaotong University, China

A16-03 (ICICIC-2006-0360)

A Reducing Multi-Noise Contrast Enhancement Algorithm for Infrared Image

Changjiang Zhang, Xiaodong Wang, Haoran Zhang, Ganyun Lv, and Han Wei
Zhejiang Normal University, China

A16-04 (ICICIC-2006-0035)

Research on 3-D Reconstruction with a Series of Cross-Sectional Images

Lijie Gan and Zhong Qu
Chongqing Technology and Business University, China

A16-05 (ICICIC-2006-0399)

An Improved Multiscale Maximum Entropy Image Restoration Algorithm

Jing Sun, Lehua Wu, and Qi Gui
Chongqing Communication Institute, China

A16-06 (ICICIC-2006-0417)

Locally Salient Feature Extraction Using ICA for Content-Based Face Image Retrieval

Guoxia Sun, Ju Liu, Jiande Sun, and Shuzhong Ba
Shandong University, China

A16-07 (ICICIC-2006-0168)

Replacement of Image Patches with Rugged Soft Boundary Using Texture Synthesis

Kedar Shrestha, Qian Li, and Shuozhong Wang
Shanghai University, China

A16-08 (ICICIC-2006-0432)

Image Texture Segmentation with Ant Colony Systems

Mei-Shin Lai, Hsiang-Cheh Huang, Shu-Chuan Chu, Yu-Hsiu Huang, and Kuang-Chih Huang
Kaohsiung University of Applied Sciences, Taiwan

A16-09 (ICICIC-2006-0174)

Fusion Image Quality Appraisal Method of Dual-spectrum Night Vision Technology

Chuang Zhang, Lianfa Bai, Yi Zhang, and Baomin Zhang
Nanjing University of Science and Technology, China

A16-10 (ICICIC-2006-0469)

Robust Estimation for Background Subtraction

Hongxun Zhang and De Xu
Beijing Jiaotong University, China

Session A17

Session Title: Design and Implementation of Control Systems (II)

Session Chair: Yibing Liu, North China Electric Power University, China

Peng Shi, University of Glamorgan, UK

A17-01 (ICICIC-2006-0639)

Investigation on the Dynamic Behavior of High-Velocity Feed System Directly Driven by a Linear Motor

Shuhong Xiao and Changli Zha

Guangdong University of Technology, China

A17-02 (ICICIC-2006-0719)

Research on Adaptive Synchrodrive Control Technology for Adjustable-Pitch System

Hongche Guo and Qingding Guo

Shenyang University of Technology, China

A17-03 (ICICIC-2006-0774)

A New Initial Rotor Position Detection Technology Based on HF Injection and Software PLL

Shujin Chen, Baozhu Ma, Zhengyun Ran, Fei Guo, and Huade Li

Beijing University of Science and Technology, China

A17-04 (ICICIC-2006-0783)

Multiple Models Adaptive Decoupling Controller Using Dimension-By-Dimension Technology

Xin Wang and Hui Yang

Shanghai Jiao Tong University, China

A17-05 (ICICIC-2006-0818)

Digital Control for Semi-Active Isolation System with Magnetorheological Damper

Cunzhi Pan and Shaopu Yang

Shijiazhuang Railway Institute, China

A17-06 (ICICIC-2006-0858)

H^∞ Gain-Scheduled Missile Controller Design Using Linear Parameter-Varying Feedback

Jianqiao Yu, Li Liu, Hongxia Zhao, and Chengdong Xu

Beijing Institute of Technology, China

A17-07 (ICICIC-2006-0906)

Parameters Identifying and Experiment of Automatic Gauge Control System in 300-Rolling Mill

Dong-Sheng Shan, Xiang-dong Kong, Ya-Ya An, and Ying-jie Gao

Yanshan University, China

A17-08 (ICICIC-2006-0907)

The Parametrization of All Stabilizing Smith Predictors for Certain Class of Non-Minimum Phase Time-Delay Plants

Kou Yamada and Hiroshi Takenaga

Gunma University, Japan

A17-09 (ICICIC-2006-0912)

The Parametrization of All Stabilizing Multi-Period Repetitive Controllers for Time-Delay Systems with the Specified Input-Output Frequency Characteristics

Kou Yamada and Makoto Kowada

Gunma University, Japan

A17-10 (ICICIC-2006-0914)

Open-pit Mine Truck Real-time Dispatching Principle under Macroscopic Control

Qiang Wang, Ying Zhang, Chong Chen, and Wenli Xu

Tsinghua University, China

Session A18

Session Title: Computer Networking (II)

Session Chairs: Changjia Chen, Beijing Jiaotong University, China

Wei Kuang Lai, Sun Yat-sen University, Taiwan

A18-01 (ICICIC-2006-0086)

Short-time Traffic Flow Forecasting Based on Projection Pursuit Auto-regression

Xiao-Yuan Wang, Hai-Hong Liu, and Zhi-Ping Liu

Shandong University of Technology, China

A18-02 (ICICIC-2006-0089)

Achieving Reliable Broadcasting in Ad Hoc Wireless Networks with Directional Antennas

Wei Kuang Lai, Chin-Shiuh Shieh, and Yi-Cheng Kuo

Sun Yat-sen University, Taiwan

A18-03 (ICICIC-2006-0272)

Comprehensive Computational Analysis on TCP in Satellite Links

Zhenyong Wang, Qing Guo, and Xuemai Gu

Harbin Institute of Technology, China

A18-04 (ICICIC-2006-0312)

Design and Implementation of Switches in Network Simulator (ns2)

Hongyun Zheng, Yongxiang Zhao, and Changjia Chen

Beijing Jiaotong University, China

A18-05 (ICICIC-2006-0436)

A New Routing Algorithm in Triple-based Hierarchical Interconnection Network

Baojun Qiao, Feng Shi, and Weixing Ji

Beijing Institute of Technology, China

A18-06 (ICICIC-2006-0442)

Projective Synchronization in Chaotic Dynamical Networks

Jie Liu, Jun an Lu, and Qiang Tang

Wuhan University, China

A18-07 (ICICIC-2006-0455)

Research of Mobile Agent Based Network Topology Discovery

Chao Dong, Xiao-rong Cheng, and Ming-quan Zhang

North China Electric Power University, China

A18-08 (ICICIC-2006-0756)

Fully Pre-Splicing TCP for Web Switches

Yeim-Kuan Chang, Wen-Hsin Cheng, and Chung-Ping Young

Cheng Kung University, Taiwan

A18-09 (ICICIC-2006-0884)

Using Mobile Agents for Object Sharing in P2P Networks

Tainchi Lu and Mingchi Fu

Chiayi University, Taiwan

A18-10 (ICICIC-2006-0560)

SIP-based User-Oriented Seamless Handoff Architecture and Control Schemes

Hsu-Yang Kung and Chi-Yu Hsu

Pingtung University of Science and Technology, Taiwan

Keynote Speech B

Theme: Missing Data Imputation with Parameter Optimization

Speaker: Prof. Chengqi Zhang

University of Technology Sydney, Australia

Abstract

Missing data imputation is an actual yet challenging issue confronted by machine learning and data mining. Traditional missing value imputation techniques can be roughly classified into regression imputation (RI) and nearest neighbor imputation (NNI). Using a RI method, each of missing values in a dataset is replaced with the corresponding predicted value, possibly plus a random quantity. Using an NNI method, a missing value in a dataset is replaced with the corresponding known value of response variable in the nearest neighbor of the covariates in the dataset.

In this talk, we present some efficient imputation methods for dealing with missing data. They include a nonparametric random imputation, a semiparametric random imputation, a nonparametric random multi-imputation, and a clustering-based nonparametric random imputation. These imputation approaches are based on kernel functions, aiming at making an optimization inference on statistical parameters: mean, distribution function and quantile after missing-data is imputed.

Biography

Chengqi Zhang has been a Research Professor in Faculty of Information Technology at University of Technology, Sydney (UTS) since 2001. He received a PhD degree from the University of Queensland, Brisbane in Computer Science and a Doctor of Science (higher doctorate) degree from Deakin University, Australia. His research interests include Data Mining and Multi-Agent Systems. He has published about 100 refereed papers and three monographs, including a dozen of high quality papers in renown international journals, such as, Artificial Intelligence, Information Systems and IEEE/ACM Transactions. He has been invited to present four Keynote speeches in four international conferences before. He has been elected as Chairman ACS National Committee for Artificial Intelligence and Expert systems from 2006. He is a Senior Member of the IEEE Computer Society (IEEE), a member of Steering Committee of PRICAI (Pacific Rim International Conference on Artificial Intelligence) and PAKDD (Pacific-Asia Conference on Knowledge Discovery and Data Mining), serving as an Associate Editors for three international journals, including IEEE Transactions on Knowledge and Data Engineering, served as General Chair, PC Chair, or Organising Chair for six international Conferences and a member of Program Committees for many international or national conferences. His personal web page is at <http://www-staff.it.uts.edu.au/~chengqi/>.

Session B01 (Invited Session ICICIC-2006-IS07)

Session Title: Innovative Embedded Computing

Session Chair: Yuan-Long Jeang, Kaohsiung University of Applied Sciences, Taiwan

Ming-Hwa Sheu, Yunlin University of Science and Technology, Taiwan

B01-01 (ICICIC-2006-IS07-001)

Design and Realization of Network Video Server Based on Single DSP

Qichang Duan, Yi Tang, and Congli Zhang

Chongqing University, China

B01-02 (ICICIC-2006-IS07-003)

A New Embedded Wavelet Image Coding Based on Zero-block and Array (N-EZBA) and Its Efficient Hardware Implementation

Yuan-Long Jeang, Ping-Shou Cheng, Jiun-Hau Tu, Kai-Jyun Liang, and Ching-Ta Chen

Kun Shan University, Taiwan

B01-03 (ICICIC-2006-IS07-004)

A New and Efficient Field-Partition Based Code Compression and Its Pipelined Decomposition System

Yuan-Long Jeang, Chih-Chung Tai, and Yong-Zong Lin

Kun Shan University, Taiwan

B01-04 (ICICIC-2006-IS07-005)

A New and Efficient Real-Time Address Tracer for Embedded Microprocessors

Yuan-Long Jeang, Ching-Ta Chen, and Chih-Chung Tai

Kun Shan University, Taiwan

B01-05 (ICICIC-2006-IS07-006)

A Methodology Based on Maximal-Profit Spanning Tree for Designing Application Specific Networks on Chip (ASNOC)

Yuan-Long Jeang, Chung-Wei Hung, and Chuen-Muh Chiang

Kun Shan University, Taiwan

B01-06 (ICICIC-2006-0078)

Design and Implementation of Flash File System in S3C44B0X Embedded system

Guo Peiyuan, Chen Wenhua, Bao Man, Chen Yan, and He Xiaoyan

Beijing Technology and Business University, China

B01-07 (ICICIC-2006-0501)

LSCIC Pre-processor design with Constriction Elucidation

Muhammad Kamran and Feng Shi

Beijing Institute of Technology, China

B01-08 (ICICIC-2006-0665)

The Hardware Implementation of a Multi-resolution Combined Fuzzy Min-Max Classifier Chip

Y. Liang, S. Q. Fan, and D. M. Jin

Tsinghua University, China

B01-09 (ICICIC-2006-0859)

Multiplierless Realization of Modified Comb Filter by Using Xilinx Spartan FPGAs

Go-An Rau and Meng-Xin Guo

Ching Yun University, Taiwan

B01-10 (ICICIC-2006-0381)

Hardware Implementation of Hash Function SHA-512

LI Hong-qiang and MIAO Chang-yun

Tianjin Polytechnic University, China

Session B02 (Invited Session ICICIC-2006-IS08)

Session Title: Information Sharing and Data/Text Mining and Discovery

Session Chair: Guifa Teng, Agricultural University of Hebei, China

Shilong Xue, Shanghai Maritime University, China

B02-01 (ICICIC-2006-IS08-001)

Analysis and Extraction of Season Features in Natural Scenes for Retrieval

Huang Kun and Lai Maosheng

Beijing Normal University, China

B02-02 (ICICIC-2006-IS08-002)

Mining and Sharing Heterogeneous E-Marketing Intelligence – A Universal Metadata-based Approach

Guifa Teng, Hong Su, Xiaodong Liu, and Tiger Wang

Agricultural University of Hebei, China

B02-03 (ICICIC-2006-IS08-003)

Neural Networks for Scientific Paper Classification

Mengjie Zhang, Xiaoying Gao, Minh Duc Cao, and Yuejin Ma

Victoria University of Wellington, New Zealand

B02-04 (ICICIC-2006-IS08-004)

Improved Algorithm for Text Classification Based on TSVM

Guifa Teng, Yihong Liu, Jianbin Ma, Fang Wang, and Huiting Yao

Agricultural University of Hebei, China

B02-05 (ICICIC-2006-IS08-005)

Unsupervised SVM Based on p-kernels for Anomaly Detection

Kunlun Li and Guifa Teng

Agricultural University of Hebei, China

B02-06 (ICICIC-2006-IS08-006)

On Method and Automatic Construction Theory of Domain Ontology Based on Depended Text

Liu Yao, Sui Zhifang, and Chen Xuefei

Peking University, China

B02-07 (ICICIC-2006-0378)

SKG: Spatial Knowledge Discovery in Grid Environment

Xiaosan Ge and Fuling Bian

Wuhan University, China

B02-08 (ICICIC-2006-0409)

Selection of Materialized View Basing on Information Weight and Using Huffman-Tree on Spatial Data Warehouse

Jing-Jing Li, Yao Wang, and Rui-Qiang Liu

Urumqi National High-Tech Development Zone, China

B02-09 (ICICIC-2006-0462)

The Study on Data Distribution Management Based on Petri Net

Xianwen Fang, Yan Zhao, and Zhixiang Yin

Anhui University of Science and Technology, China

B02-10 (ICICIC-2006-0463)

A Fault Diagnosis System Based on Data Fusion Algorithm

Shilong Xue

Shanghai Maritime University, China

Session B03

Session Title: Pattern Recognition and Classification (I)
Session Chair: Hajime Murao, Kobe University, Japan
Qiuqi Ruan, Beijing Jiaotong University, China

B03-01 (ICICIC-2006-0170)

KICA for Face Recognition based on Kernel Generalized Variance and Multiresolution Analysis
GaoYun An and Qiuqi Ruan
Beijing Jiaotong University, China

B03-02 (ICICIC-2006-0319)

Ocean Red Tide Recognizing Method Based Neural Network Ensembles
Wencang Zhao, Wei Wang, and Jin Li
Qingdao University of Science and Technology, China

B03-03 (ICICIC-2006-0344)

Measuring Source Code Similarity Using Reference Vectors
Asako Ohno and Hajime Murao
Kobe University, Japan

B03-04 (ICICIC-2006-0407)

A Novel Unsupervised Salient Region Segmentation for Color Images
Yu-Hsin Kuan, Shih-Ting Chen, Chung Ming Kuo, and Chaur-Heh Hsieh
I-Shou University, Taiwan

B03-05 (ICICIC-2006-0416)

A Speech Recognition System based on a Hybrid HMM/SVM Architecture
Zhi-Yi Qu, Yu Liu, Li-Hong Zhang, and Ming-Xin Shao
Lanzhou University, China

B03-06 (ICICIC-2006-0423)

Research on Automatic Speaker Recognition Based on Speech Clustering
Limin Xu, Bo Qian, Weiming Cheng, and Zhenmin Tang
Nanjing University of Science and Technology, China

B03-07 (ICICIC-2006-0448)

Wavelet-Based Feature Extraction and Recognition of Infrared Target
Quan Liu and Jianjun Zhang
Wuhan University of Technology, China

B03-08 (ICICIC-2006-0461)

Sampled Two-dimensional LDA for Face Recognition with One Training Image per Person
Hongtao Yin, Ping Fu, and Shengwei Meng
Harbin Institute of Technology, China

B03-09 (ICICIC-2006-0490)

The Application of Image Recognition into the Automatic Recognition System for Truck Cab Assembly Identifier
Hua Wang, Hudai Fu, and Wei Yang
Changchun Institute of Technology, China

B03-10 (ICICIC-2006-0649)

Fingerprint Identification Based on Frequency Texture Analysis
Juncao Li, Yong Zhang, Wenhai Kong and Xiamu Niu
Harbin Institute of Technology, China

Session B04

Session Title: Design and Implementation of Control Systems (III)

Session Chair: Der-Cherng Liaw, Chiao Tung University, Taiwan
Shuliang Lei, NASA Glenn Research Center, USA

B04-01 (ICICIC-2006-0090)

Design of Universal Simulation Platform for Avionics

Lianlei Lin and Shouda Jiang
Harbin Institute of Technology, China

B04-02 (ICICIC-2006-0326)

The Multi-Objective Optimal Control for Servo System

Qing Hu and Yiju Zhin
Guangdong University of Technology, China

B04-03 (ICICIC-2006-0589)

Adaptive Backstepping Control for Flight Simulator

Qingwei Wang, Zhenghua Liu, and Lianjie Er
Beijing University of Aeronautics and Astronautics, China

B04-04 (ICICIC-2006-0869)

Negotiation of the Multi-underwater Glider System

Shaoxuan Ren, Yu Zhang, and Changzheng Chen
Shenyang University of Technology, China

B04-05 (ICICIC-2006-0284)

Study of Neuron Adaptive PID Controller in a Single-zone HVAC System

Jiangjiang Wang, Youyin Jing, and Dawei An
North China Electric Power University, China

B04-06 (ICICIC-2006-0957)

Hybrid CPM/CAM Physiotherapy Device by Use of Active Feedback Control Loop

Hung-Jung Ho and Tien-Chi Chen
Cheng Kung University, Taiwan

B04-07 (ICICIC-2006-1099)

Control Design for Longitudinal Flight Dynamics

Der-Cherng Liaw, Wen-Ching Chung, and Chien-Shu Hsieh
Chiao Tung University, Taiwan

B04-08 (ICICIC-2006-0018)

Real Time Digital Control of Magnetic Bearings with Microprocessors

Shuliang Lei and Alan Palazzolo
NASA Glenn Research Center, USA

B04-09 (ICICIC-2006-0333)

Iterative Learning Control with PI-PD and Smith Compensator for Batch Processes

Yu-e Hu, Shuchen Li, and Chunyan Zhai
Liaoning University of Petroleum and Chemical Technology, China

B04-10 (ICICIC-2006-0428)

The Study of Multivariable Grey Generalized Predictive Control

Zhiwang Chen, Jianxiong Li, and Hongrui Wang
Yanshan University, China

A04-06 (ICICIC-2006-1097)

An Approach to Estimate Domain of Attraction for Nonlinear Control Systems

Der-Cherng Liaw and Ching-Hung Lee
Chiao Tung University, Taiwan

Session B05

Session Title: Fuzzy Systems and Applications (II)

Session Chair: Katsuari Kamei, Ritsumeikan University, Japan

Jyh-Horng Chou, Kaohsiung First University of Science and Technology, Taiwan

B05-01 (ICICIC-2006-0545)

A Proposal of Fuzzy Control System for Trailers Driven by Multiple Motors in Side Slipway to Launch and Pull Out Ships

Nyan Win Aung, Eric W. Cooper, Yukinobu Hoshino, and Katsuari Kamei
Ritsumeikan University, Japan

B05-02 (ICICIC-2006-0605)

Self-Organizing Fuzzy Clustering Neural Networks Controller for Robotic Manipulators

Yanjv Liu, Xuefeng Dai, and Yan Shi
Qiqihar University, China

B05-03 (ICICIC-2006-0646)

A Hybrid Deterministic Model Based on Rough set and Fuzzy set and Bayesian Optimal Classifier

Hongsheng Su and Qunzhan Li
Southwest Jiaotong University, China

B05-04 (ICICIC-2006-0718)

Study on State Feedback Fuzzy-predictive Control System of T-S Fuzzy Model

Shubin Wang, Pinhui Hu, and Li Lin
China University of Petroleum, China

B05-05 (ICICIC-2006-0792)

Integral Sliding Mode Controller Based on Fuzzy Logic for the Heading Control of the Submersible Vehicle

Xin Song, Jia-Wei Ye, and Li-Min Wu
South China University of Technology, China

B05-06 (ICICIC-2006-0798)

Fuzzy Control with Passivity Constraint for Discrete Affine T-S Fuzzy Systems

Wen-Jer Chang, Cheung-Chieh Ku, and Wei Chang
Taiwan Ocean University, Taiwan

B05-07 (ICICIC-2006-0834)

Study on Navigating Path Identification by Fuzzy Neural Network

Shouwen Ji, Jiajuan Chen, Fang Xie, and Nan Zhang
Beijing Jiaotong University, China

B05-08 (ICICIC-2006-0919)

Realtime Scheduling for FMS Based on Fuzzy Logic

Yaguang Kong, Xiangxin Gong, and Jianzhong Wang
Hangzhou Dianzi University, China

B05-09 (ICICIC-2006-1053)

A Fuzzy Model for Bidding Behavior of Participants in Electricity Markets

Guilan Zhi and Shigeyoshi Watanabe
University of Electro-Communications, Japan

B05-10 (ICICIC-2006-1108)

Fuzzy Testing and Selecting the Better Manufacturing Process Using Loss-based Capability Index

B. M. Hsu and M. H. Shu
Kaohsiung University of Applied Sciences, Taiwan

Session B06

Session Title: Video Processing

Session Chairs: Weigang Zhang, Harbin Institute of Technology, China
Siwei Luo, Beijing Jiaotong University, China

B06-01 (ICICIC-2006-0471)

Improved Side-Information in Distributed Video Coding

Lei Wei, Yao Zhao, and Anhong Wang

Beijing Jiaotong University, China

B06-02 (ICICIC-2006-0384)

Fast Inter Mode Selection Algorithm in MPEG-2-to-AVS Transcoder

Zhen Han, Ruimin Hu, Li Zhu, Xinchen Zhang, and Qiong Liu

Wuhan University, China

B06-03 (ICICIC-2006-0475)

Construction of Semantic Network for Videos

Fangshi Wang, De Xu, Hongli Xu, and Weixin Wu

Beijing Jiaotong University, China

B06-04 (ICICIC-2006-0502)

Adaptive Interpolation Algorithm for Real-time Image Resizing

Jianping Xiao, Xuecheng Zou, Zhenglin Liu, and Xu Guo

Huazhong University of Science and Technology, China

B06-05 (ICICIC-2006-0468)

Performance Comparisons of Different Channel Codes in Distributed Video Coding

Hao Wang, Yao Zhao, and Anhong Wang

Beijing Jiaotong University, China

B06-06 (ICICIC-2006-0548)

Simulation of Pedestrians in Computer Animation

Zhen Liu

Ningbo University, China

B06-07 (ICICIC-2006-0582)

Target Tracking in Infrared Image Sequences Using Diverse AdaBoostSVM

Zhenyu Wang, Yi Wu, Jinqiao Wang, and Hanqing Lu

Chinese Academy of Sciences, China

B06-08 (ICICIC-2006-0601)

A Model of Space and Object-based Attention for Visual Saliency

Jingjing Zhong and Siwei Luo

Beijing Jiaotong University, China

B06-09 (ICICIC-2006-0426)

Multiple Description Video Coding Based on Lattice Vector Quantization

Huihui Bai and Yao Zhao

Beijing Jiaotong University, China

B06-10 (ICICIC-2006-0633)

Efficient Wavelet Zero-Tree Video Coding Based on Wyner-Ziv Coding and Lattice Vector Quantization

Anhong Wang, Yao Zhao, and Jing Li

Beijing Jiaotong University, China

Session B07 (Invited Session ICICIC-2006-IS09)

Session Title: Emerging Approaches to Pervasive Applications

Session Chair: Bao Rong Chang, Taitung University, Taiwan

Kiyoshi Nosu, Tokai University, Japan

B07-01 (ICICIC-2006-IS09-001)

Regularizing BWGC/NGARCH Model by Quantum Minimization

Bao Rong Chang, Hsiu Fen Tsai, Shi Huang Chen, Yu-Chang Chen, and Yu-Kuo Tseng

Taitung University, Taiwan

B07-02 (ICICIC-2006-IS09-005)

Applying Grey Forecasting Model on the Investment Performance of Markowitz Efficiency Frontier: A Case of the Taiwan Securities Markets

Alex Kung-Hsiung Chang and Jen-Der Kung

Pingtung University of Science and Technology, Taiwan

B07-03 (ICICIC-2006-IS09-006)

Finding Point Correspondence Using Local Similarity and Global Constraint

Jen-Hui Chuang, Jau-Hong Kao, and Chien-Chou Lin

Chiao Tung University, Taiwan

B07-04 (ICICIC-2006-IS09-008)

ID-Based PPM for IP Traceback

Yu-Kuo Tseng, Yi-You Lu, Jen-Yi Huang, Wen-Shyong Hsieh, Bao-Rong Chang, Yu-Chang Chen, and

Shi-Huang Chen

Shu-Te University, Taiwan

B07-05 (ICICIC-2006-IS09-009)

Identification and Analysis of P2P Traffic - An Example of BitTorrent

Mong-Fong Horng, Chun-Wei Chen, Chin-Shun Chuang, and Cheng-Yu Lin

Shu Te University, Taiwan

B07-06 (ICICIC-2006-IS09-010)

Image Classification using a Module RBF Neural Network

Chuan-Yu Chang and Shih-Yu Fu

Yunlin University of Science and Technology, Taiwan

B07-07 (ICICIC-2006-0429)

A Multi-Modal Emotion-Diagnosis System to Support e-Learning

Kiyoshi Nosu and Tomoya Kurokawa

Tokai University, Japan

B07-08 (ICICIC-2006-0364)

DDD Method Based on Joint Target Cancellation for Circular Array Antennas

Wenchong Xie and Yongliang Wang

Wuhan Radar Academy, China

B07-09 (ICICIC-2006-0393)

Equivalent Transformation Rules as Components of Programs

Hiroshi Mabuchi, Kiyoshi Akama, and Toshihiro Wakatsuki

Iwate Prefectural University, Japan

B07-10 (ICICIC-2006-0408)

Fault-Tolerant Mutually Independent Hamiltonian Cycles Embedding on Hypercubes

Sun-Yuan Hsieh

Cheng Kung University, Taiwan

Session B08 (Invited Session ICICIC-2006-IS11)

Session Title: Fuzzy Reasoning and Its Applications

Session Chair: Hirofumi Sasaki, Kyushu Tokai University, Japan

Hugang Han, Prefectural University of Hiroshima, Japan

B08-01 (ICICIC-2006-IS11-001)

Pattern Recognition Based on Relative Position of Local Features Using Self-Organizing Map

Keiichi Horio, Akira Aikawa, and Takeshi Yamakawa

Kyushu Institute of Technology, Japan

B08-02 (ICICIC-2006-IS11-002)

The New Estimation Method of Collision Possibility of Approaching Object by Using Fuzzy Inference with Image Features

Masaaki Iwasaki and Takeshi Yamakawa

Kyushu Institute of Technology, Japan

B08-03 (ICICIC-2006-IS11-003)

An Implementation of the Neuro-fuzzy Inference Circuit

Kuniaki Fujimoto, Hirofumi Sasaki, Yoichiro Masaoka, Ren-Qi Yang, and Masaharu Mizumoto

Kyushu Tokai University, Japan

B08-04 (ICICIC-2006-IS11-004)

Fuzzy Controller Stuck to Experts' Views

Hugang Han

Prefectural University of Hiroshima, Japan

B08-05 (ICICIC-2006-IS11-005)

Autopilot Design Based on Fuzzy Logic and Genetic Algorithm

Xionghui Lu, Jianqiang Yi, and Dongbin Zhao

Chinese Academy of Sciences, China

B08-06 (ICICIC-2006-IS11-006)

A Fuzzy-based Drawing-aid System to Smooth Out Involuntary Hand Motions

Kei Eguchi, Hongbing Zhu, and Fumio Ueno

Shizuoka University, Japan

B08-07 (ICICIC-2006-IS11-007)

An Imitation Method of Human Action Intelligence

Tao Shang and Shuoyu Wang

Shenyang University of Technology, China

B08-08 (ICICIC-2006-IS11-008)

A Health Check and Prediction System for Lifestyle-Related Disease Prevention

Xia Yu and Shuoyu Wang

Shenyang University of Technology, China

B08-09 (ICICIC-2006-IS11-009)

Calculus of Interpolated Fuzzy Relation Type Fuzzy Reasoning Method

Manabu Shimakawa

Kumamoto National College of Technology, Japan

B08-10 (ICICIC-2006-IS11-010)

The Human Visual Recognition Ability for Incomplete Letters

Yinlai Jiang and Shuoyu Wang

Kochi University of Technology, Japan

B08-11 (ICICIC-2006-IS11-011)

Measurement of Functional Auditory Intelligence in Humans

Di Miao and Shuoyu Wang

Kochi University of Technology, Japan

Session B09

Session Title: Signal Processing (I)

Session Chairs: Mingyi He, Northwestern Polytechnical University, China
Yao Zhao, Beijing Jiaotong University, China

B09-01 (ICICIC-2006-0163)

A New Hybrid PDE Denoising Model Based on Markov Random Field

Ji-Ying Wu and Qiu-Qi Ruan

Beijing Jiaotong University, China

B09-02 (ICICIC-2006-0167)

AVS Digital Audio Processing Technology

Cong Zhang, Rui-Min Hu, and Hao-Jun Ai

Wuhan University, China

B09-03 (ICICIC-2006-0219)

Extracting Lip Parameters in Speech Synthesis System Driven by Visual-speech

Gang Li, Mengjun Wang, and Ling Lin

Tianjin University, China

B09-04 (ICICIC-2006-0261)

Interactive PC Texture-Based Volume Rendering for Large Datasets

Jie Zheng, Hongbing Ji, and Wanhai Yang

Xidian University, China

B09-05 (ICICIC-2006-0267)

An Adaptive Implementation of the Kernel-Based Object Tracking Method

Muyun Weng, Mingyi He, and Yifan Zhang

Northwestern Polytechnical University, China

B09-06 (ICICIC-2006-0205)

High Squint SAR Processing Using Modified Extended Chirp Scaling

Shizhong Duan and Junxian Li

Tsinghua University, China

B09-07 (ICICIC-2006-0362)

A New Transform with Extended Product to Exploit Different Scale Redundance

Zhiyuan Zhang and Yao Zhao

Beijing Jiaotong University, China

B09-08 (ICICIC-2006-0420)

A Fast Algorithm for the Quasi-Synchronous Window

Xiaofeng Yuan, Shuhong Chen, Hualong Xu, and Zhijie Zhou

Xi'an High-Tech Institute, China

B09-09 (ICICIC-2006-0486)

An Effective Array for 2-D Direction-of-Arrival Estimation

Maohui Xia, Cai Liu, Ruiyan Du, and Jin Li

Yanshan University, China

B09-10 (ICICIC-2006-0443)

On the Blind SNR Estimation for IF Signals

Dan Sui and Lindong Ge

Information Engineering University, China

C03-08 (ICICIC-2006-1072)

Optimal Filtering for Systems with Unknown Inputs via a Parametrized Minimum-Variance Filter

Chien-Shu Hsieh

Ta Hwa Institute of Technology, Taiwan

Session B10

Session Title: Neural Networks and Applications

Session Chairs: Mengjie Zhang, Victoria University of Wellington, New Zealand

Yuanchun Li, Jilin University, China

B10-01 (ICICIC-2006-0142)

Harmonic Detection based Hopfield Neural Network Optimum Algorithm

Yu Zou and Ping Wang

Tianjin University, China

B10-02 (ICICIC-2006-0150)

A Novel BP Algorithm Based on Self-adaptive Parameters and Performance Analysis

Haibin Cai, Liangxu Liu, and Qiyang Cao

Donghua University, China

B10-03 (ICICIC-2006-0193)

Robust Neural Networks Compensating Motion Control of Reconfigurable Manipulator

Ying Li and Yuanchun Li

Jilin University, China

B10-04 (ICICIC-2006-0268)

A Neural Network Based Electrical Loss Prediction of Bare Overhead ACSR Conductors

Fang Liu, Raymond D. Findlay, and Qiang Song

McMaster University, Canada

B10-05 (ICICIC-2006-0564)

Cooperative Cutting Work for Two 2-dof Robots with RNN Model

Yingda DAI, Masami KONISHI, and Jun IMAI

Okayama University, Japan

B10-06 (ICICIC-2006-0567)

The Method of Soft Sensing Based on RBF Neural Network and Intelligent Control for Sewage Disposal Process

Zaiwen Liu, Lifeng Cui, Xiaoqin Lian, Cuiling Liu, and Chaozhen Hou

Beijing Technology and Business University, China

B10-07 (ICICIC-2006-0587)

Research on the Non-destructive Testing Method of Pod Based on Neural Networks

Guangyou Yang, Guozhu Zhou, Xianli Luo, and Xinming Hu

Hubei University of Technology, China

B10-08 (ICICIC-2006-0677)

Design of RBF Neural Synchronous Controller with PID Compensation for a Class of Unknown Chaotic System

Xinyu Wang, Junwei Lei, and Yigao Deng

Yantai University, China

B10-09 (ICICIC-2006-0753)

A Multiple-Instance Neural Networks based Image Content Retrieval System

Shun-Chin Chuang, Yeong-Yuh Xu, Hsin Chia Fu, and Hsiang-Cheh Huang

Chiao-Tung University, Taiwan

B10-10 (ICICIC-2006-0374)

Chaotic BP Neural Network Based Case Retrieval Method

Chun-Guang Chang, Ding-Wei Wang, and Ya-Chen Liu

Shenyang Jianzhu University, China

Session B11

Session Title: Communication and Computer Networks

Session Chairs: Dongfeng Yuan, Shandong University, China

Sung-Tsun Shih, Cheng-Shiu University, Taiwan

B11-01 (ICICIC-2006-0612)

Design and Analysis of a Fully Non-blocking Quantum Switch

Chuan-Ching Sue, Wei-Ren Chen, and Chin-Yu Huang

Cheng Kung University, Taiwan

B11-02 (ICICIC-2006-0648)

Cooperative Limiting Localization Schemes for Wireless Sensor Networks

Wenping Chen

Renmin University of China, China

B11-03 (ICICIC-2006-0706)

Mining Unstructured Web Pages to Enhance Web Information Retrieval

Hsin-Chang Yang and Chung-Hong Lee

Chang Jung University, Taiwan

B11-04 (ICICIC-2006-0785)

Dynamic Data Scheduling and Resource Management Using Max-utility Estimation in Next Generation Wireless Networks

Kunqi Guo, Lixin Sun, Shilou Jia, and Mingji Yang

Harbin Institute of Technology, China

B11-05 (ICICIC-2006-0058)

Signal Propagation on Three Phases Power Distribution Lines as Communications Channels for Intelligent Systems

Mingyue Zhai and Qing-An Zeng

North China Electric Power University, China

B11-06 (ICICIC-2006-0277)

Performance of MC-CDMA Based on Feedback Pre-equalization Method in Uplink Channel

Xiao-Peng Yang, Hao-Shan Shi, and Yao-Kun

Northwestern Polytechnical University, China

B11-07 (ICICIC-2006-0336)

A Novel Two-Relay Collaborative Multihop Inter-Vehicle Communication Systems

Xiaojian Xu, Qingmin Meng, and Hanying Hu

Information Engineering University, China

B11-08 (ICICIC-2006-0987)

Improved Anti-collision Scheme for High Speed Identification in RFID System

Tae-Wook Hwang, Byong-Gyo Lee, Young Soo Kim, Doug Young Suh, and Jin Sang Kim

KyungHee University, Korea

B11-09 (ICICIC-2006-1037)

An Improvement Approach of Indoor Location Sensing Using Active RFID

Sung-Tsun Shih, Kunta Hsieh, and Pei-Yuan Chen

Cheng-Shiu University, Taiwan

B11-10 (ICICIC-2006-0515)

Image Transmission in LDPC Coded Mobile Satellite Communication Systems

Yuling Zhang and Dongfeng Yuan

Shandong University, China

Session B12

Session Title: Management in Business and Industry

Session Chairs: Ming-Hung Shu, Kaohsiung University of Applied Sciences, Taiwan

Jui-Fang Chang, Kaohsiung University of Applied Sciences, Taiwan

B12-01 (ICICIC-2006-1027)

Optimal Portfolio with Consumption Choice under Jump-diffusion Process

Shuping Wan

Jiangxi University of Finance and Economic, China

B12-02 (ICICIC-2006-1109)

Service Quality Design via Fuzzy Approach

Jung-Fung Chen

Kaohsiung University of Applied Sciences, Taiwan

B12-03 (ICICIC-2006-0495)

Kernel-SOM Based Visualization of Financial Time Series Forecasting

Dong-Jun Yu, Yong Qi, Yong-Hong Xu, and Jing-Yu Yang

Nanjing University of Science and Technology, China

B12-04 (ICICIC-2006-0435)

Batch Process Fault Diagnosis Based on Fuzzy Petri Nets

Zhenjuan Liu, Bo Pan, and Hongguang Li

Beijing University of Chemical Technology, China

B12-05 (ICICIC-2006-0853)

Analysis on Appearance Reasons of the Positive Feedback Traders

Shi An, Lei Wang, and He Huang

Harbin Institute of Technology, China

B12-06 (ICICIC-2006-1111)

Design of One-sided Screening Specifications for Multi-characteristic Product

Hui-Chung Yeh, Hsien-Tang Tsai, and Min-Chun Yu

Kaohsiung University of Applied Sciences, Taiwan

B12-07 (ICICIC-2006-0048)

A Conceptual Framework for Product Lifecycle Modeling

Wenlei Zhang and Yushun Fan

Chinese Academy of Science, China

B12-08 (ICICIC-2006-0895)

Discrete-time Risk Measures on General Probability Space

Shi An, Jian Sun, and Yan Wang

Harbin Institute of Technology, China

B12-09 (ICICIC-2006-0777)

Comparing Personal Portfolio Strategies by Genetic Algorithm Mixed with Association Rules

Jui-Fang Chang

Kaohsiung University of Applied Sciences, Taiwan

B12-10 (ICICIC-2006-0386)

The Approximate Shortest Distance Route Intelligent System for Traveling in Taiwan

Chin-Jung Huang and Ying-Hong Lin

St. John's University, Taiwan

Session B13 (Invited Session ICICIC-2006-IS12)

Session Title: Text Mining and Multimedia Data Mining Techniques and Applications

Session Chair: Chung-Hong Lee, Kaohsiung University of Applied Sciences, Taiwan

Hou-Kuan Huang, Beijing Jiaotong University, China

B13-01 (ICICIC-2006-IS12-001)

A Novel Multilingual Text Categorization System Using Latent Semantic Indexing

Chung-Hong Lee, Hsin-Chang Yang, and Sheng-Min Ma

Kaohsiung University of Applied Sciences, Taiwan

B13-02 (ICICIC-2006-IS12-002)

A Web-Based Database Management System Supporting Parallel Data Mining Service on PC Cluster

Tyng-Yeu Liang, Siou-Ying Wang, and Liang-I Chang

Kaohsiung University of Applied Sciences, Taiwan

B13-03 (ICICIC-2006-IS12-004)

A Comparative Study on Supervised and Unsupervised Learning Approaches for Multilingual Text Categorization

Chung-Hong Lee, Hsin-Chang Yang, Ting-Chung Chen, and Sheng-Min Ma

Kaohsiung University of Applied Sciences, Taiwan

B13-04 (ICICIC-2006-IS12-005)

Reduction of RLC Tree Delay Using Bidirectional Buffer Repeater Insertion

Trong-Yen Lee, Yang-Hsin Fan, and Chia-Chun Tsai

Taipei University of Technology, Taiwan

B13-05 (ICICIC-2006-IS12-006)

A Cluster-based Method for Mining Generalized Fuzzy Association Rules

Hung-Pin Chiu, Yi-Tsung Tang, and Kun-Lin Hsieh

Nan Hua University, Taiwan

B13-06 (ICICIC-2006-IS12-007)

FPU Recurrence in the KdV-type Equations

Yung-Ming Chang, Juan-Ming Yuan, and Chin-Chieh Chiang

Taitung University, Taiwan

B13-07 (ICICIC-2006-IS12-008)

Using Genetic Algorithm to Improve the Performance of Speech Recognition Based on Artificial Neural Network

Min-Lun Lan, Shing-Tai Pan, and Chih-Chin Lai

Shu-Te University, Taiwan

B13-08 (ICICIC-2006-IS12-010)

Applications of Multi-objective Evolutionary Algorithms to Cluster Tool Scheduling

Jia-Ying Tzeng, Tung-Kuan Liu, and Jyh-Horng Chou

Kaohsiung First University of Science and Technology, Taiwan

B13-09 (ICICIC-2006-0743)

Research and Application of Spatio-temporal Data Mining Based on Ontology

Wei Xu and Hou-Kuan Huang

Beijing Jiaotong University, China

B13-10 (ICICIC-2006-0793)

Clustering Validity Based on the Improved Hubert Γ Statistic and the Separation of Clusters

Heng Zhao, Jimin Liang, Haihong Hu

Xidian University, China

Session B14 (Invited Session ICICIC-2006-IS13)

Session Title: Nagoya University 21st Century COE Program on Media Integration for Intelligent Transport Systems

Session Chair: Jien Kato, Nagoya University, Japan
Zhenfeng Zhu, Beijing Jiaotong University, China

B14-01 (ICICIC-2006-IS13-001)

Raindrop Detection from In-vehicle Video Camera Images for Rainfall Judgment

Hiroyuki Kurihara, Tomokazu Takahashi, Yoshito Mekada, Ichiro Ide, Hiroshi Murase, Yukimasa Tamatsu, and Takayuki Miyahara
Nagoya University, Japan

B14-02 (ICICIC-2006-IS13-002)

Visibility Estimation in Foggy Conditions by In-vehicle Camera and Radar

Kenji Mori, Terutoshi Kato, Tomokazu Takahashi, Ichiro Ide, Hiroshi Murase, Takayuki Miyahara, and Yukimasa Tamatsu
Nagoya University, Japan

B14-03 (ICICIC-2006-IS13-003)

Characterizing in-car Conversational Speech of Different Dialogue Modes

Hiroshi Fujimura, Chiyomi Miyajima, Nobuo Kawaguchi, Katunobu Itou, Kazuya Takeda, and Fumitada Itakura
Nagoya University, Japan

B14-04 (ICICIC-2006-IS13-004)

A Reliable Routing Algorithm with Real Time and Historical Information

Jiang Qian YING and Jien KATO
Gifu University, Japan

B14-05 (ICICIC-2006-IS13-005)

Discussion Support System for Video-oriented Sports Meetings

Kosuke Akune, Kenji Mase, Yasushi Hirano, and Shoji Kajita
Nagoya University, Japan

B14-06 (ICICIC-2006-0074)

Multiphase Adaptive Fuzzy Control for Intelligent Transportation System

MA Wen-ge
Dalian Maritime University, China

B14-07 (ICICIC-2006-0049)

Fault Tolerant Control for Transportation System of Coal Port

Wei Gu and Jianxin Chu
Shanghai Maritime University, China

B14-08 (ICICIC-2006-0773)

Multiple Probabilistic Templates Based Pedestrian Detection in Night Driving with a Normal Camera

Mei Hu
Tsinghua University, China

B14-09 (ICICIC-2006-1110)

Multi-Scale Analysis of Odd Gabor Transform for Edge Detection

Zhenfeng Zhu, Hanqing Lu, and Yao Zhao
Beijing Jiaotong University, China

B14-10 (ICICIC-2006-0109)

The Dynamic Grey Radial Basis Function Prediction Model and its Applications

Jingling Yuan, Luo Zhong, and Yang Yu
Wuhan University of Technology, China

Session B15

Session Title: Design and Implementation of Control Systems (IV)

Session Chairs: Shaocheng Tong, Liaoning Institute of Technology, China
Der-Cheng Liaw, Chiao Tung University, Taiwan

B15-01 (ICICIC-2006-0922)

The Estimation of Exponential Decay about a Kind of Wave Equation with Boundary Feedback Control

Jia Jun-guo, Yang Song-hua, and Wang Mian-sen
Xi'an Jiao-Tong University, China

B15-02 (ICICIC-2006-0929)

Study on Intelligent Control Integrated System of China

Yin Zhu, Junli Wang, Dalin Qian, and Tingjie Han
Chinese People's Public Security University, China

B15-03 (ICICIC-2006-0960)

The Parametrization for the Class of All Proper Stabilizing Controllers for Multiple-Input/Multiple-Output Minimum Phase Systems

Kou Yamada, Keiji Satoh, and Yeju Mei
Gunma University, Japan

B15-04 (ICICIC-2006-0968)

Optimal Control of Nonholonomic Motion Planning for a Free-Falling Cat

Xin-Sheng Ge and Qi-Zhi Zhang
Beijing Institute of Machinery, China

B15-05 (ICICIC-2006-1081)

A Higher-Order Stabilizability Condition for a Class of Switched Systems

Yew-Wen Liang, Sheng-Dong Xu, and Chia-Chen Chiang
Chiao Tung University, Taiwan

B15-06 (ICICIC-2006-1106)

A Variable Structure Model Reference Adaptive Controller, For SIMO Systems

Ardeshir Karami Mohammadi
Karaj Azad University, Iran

B15-07 (ICICIC-2006-0075)

Application of DDR Controller for High-speed Data Acquisition Board

Zude Zhou, Songlin Cheng, and Quan Liu
Wuhan University of Technology, China

B15-08 (ICICIC-2006-0069)

New Robust Stability Criteria for Uncertain Neutral System with Severe Time-Varying Delay and Nonlinear Uncertainties

Jiqing Qiu, Jinhui Zhang, Lianqing Su, and Peng Shi
Hebei University of Science and Technology, China

B15-09 (ICICIC-2006-0503)

Decentralized Control for Discrete-Time Fuzzy Time-Delay Interconnected Systems

Tao Wang and Shaocheng Tong
Liaoning Institute of Technology, China

B15-10 (ICICIC-2006-0507)

Direct Adaptive Fuzzy Backstepping Control for Nonlinear Systems

Shaocheng Tong and Yongming Li
Liaoning Institute of Technology, China

Session B16

Session Title: Data Mining and Knowledge Discovery
Session Chairs: Mong-Fong Horng, Shu Te University, Taiwan
Ran Tao, Beijing Institute of Technology, China

B16-01 (ICICIC-2006-0410)

A New CFAR Detector Based on Ordered Data Variability
Juan Zhao, Ran Tao, and Yue Wang
Beijing Institute of Technology, China

B16-02 (ICICIC-2006-0065)

Collector Engine System: A Web Mining Tool for E-Commerce
Di Guo
Wuhan University of Technology, China

B16-03 (ICICIC-2006-0222)

Error Tracing & Data Mining in the Cold Rolling Process
Yiqun Wang, Tao Liu, Wanlu Jiang, and Yiming Fang
Yanshan University, China

B16-04 (ICICIC-2006-0606)

Frequent Itemset Mining Based on Heuristic Two Level Counting
Feng Liu, FengZhan Tian, and QiLiang Zhu
Beijing University of Posts and Telecommunications, China

B16-05 (ICICIC-2006-0669)

A Service Retrieval Assistance Mechanism Based on Association Mining
Bin Tang, Leqiu Qian, Yunjiao Xue, and Hui Tang
Fudan University, China

B16-06 (ICICIC-2006-0876)

Study on Personalized Knowledge Service in Community E-Learning by Using Adaptive Filtering Algorithm
Luo Qi and Yu Ying
Wuhan University of Science and Technology, China

B16-07 (ICICIC-2006-1113)

A Data Mining Approach to Consumer Behavior
Junzo Watada and Kozo Yamashiro
Waseda University, Japan

B16-08 (ICICIC-2006-0488)

A New Approach for Rule-based Knowledge Value-Added Treatment Inference
Chin-Jung Huang and Ying-Hong Lin
St. John's University, Taiwan

B16-09 (ICICIC-2006-1092)

Extraction of the Value representing Human Feature for the Development of the Sensor with the function of Privacy-Protection and the Construction of Discrimination-Circuit
Mitsutoshi SAITO, Yusuke NAMBA, and Seiichi SERIKAWA
Kyushu Institute of Technology, Japan

B16-10 (ICICIC-2006-0552)

Seeking User's Query Concept Dynamically Based on Region in Relevance Feedback
Yufeng Zhao, Yao Zhao, and Zhenfeng Zhu
Beijing Jiaotong University, China

Session B17

Session Title: Image Processing (II)

Session Chair: Jiying Zhao, University of Ottawa, Canada

Yong Zhang, Harbin Institute of Technology, China

B17-01 (ICICIC-2006-0182)

An Improved Unsharp Masking Method for Palmprint Image Enhancement

Yanxia Wang and Qiuqi Ruan

Beijing Jiaotong University, China

B17-02 (ICICIC-2006-1039)

Automatic Assessment of Knee Osteoarthritis Parameters from Two-Dimensional X-ray Image

Hung-Chun Lee, Jiann-Shu Lee, Mark Chii-Jeng Lin, Chia-Hsiang Wu and Yung-Nien Sun

Cheng Kung University, Taiwan

B17-03 (ICICIC-2006-1076)

A Fast Wavelet-based Image Progressive Transmission Method Based on Vector Quantization

Ming-Ni Wu, Chia-Chen Lin, and Chin-Chen Chang

Chung Cheng University, Taiwan

B17-04 (ICICIC-2006-1078)

A Wavelet-based Progressive Digital Image Transmission Scheme

Chin-Chen Chang and Tzu-Chuen Lu

Feng Chia University, Taiwan

B17-05 (ICICIC-2006-1090)

A Fast Algorithm for Color Image Segmentation

Liju Dong, Philip Ogunbona, Wanqing Li, Ge Yu, Linan Fan, and Gang Zheng

University of Wollongong, Australia

B17-06 (ICICIC-2006-0305)

Automatic Ultrasound Image Segmentation by Active Contour Model Based on Texture

Rong Lu and Yi Shen

Harbin Institute of Technology, China

B17-07 (ICICIC-2006-0927)

Application of Wavelet Threshold to Image De-noising

Qingwu Li and Chunyuan He

Hohai University, China

B17-08 (ICICIC-2006-0969)

The Highly Lose Image Inpainting Method based on Human Vision

Ching-Tang Hsieh, Eugene Lai, Ping-Da Yang and Yen-Liang Chen

Tamkang University, Taiwan

B17-09 (ICICIC-2006-0995)

Image Fusion Algorithm Assessment based on Feature Measurement

Jiying Zhao, Robert Laganière, and Zheng Liu

University of Ottawa, Canada

B17-10 (ICICIC-2006-0602)

An Edge-Driven Total Variation Approach to Image Deblurring and Denoising

Hongwei Zheng and Olaf Hellwich

Berlin University of Technology, Germany

Session B18

Session Title: Signal Processing (II)

Session Chairs: Mangui Liang, Beijing Jiaotong University, China
Bo Xu, Chinese Academy of Sciences, China

B18-01 (ICICIC-2006-0531)

Neural Legendre Orthogonal Polynomial Adaptive Equalizer
Haiquan Zhao, Jiashu Zhang, Mingyuan Xie, and Xiangping Zeng
Chengdu University of Information Technology, China

B18-02 (ICICIC-2006-0499)

Pulse Shaping for UWB Communications in Dense Multipath
Huiyu Wang, Qinyu Zhang, Naitong Zhang, and Xuejun Sha
Harbin Institute of Technology, China

B18-03 (ICICIC-2006-0538)

Patch-based Synthesis for Non-frontal-parallel Textures (NFPT)
Chung-Ren Yan, Tong-Yee Lee, and Chao-Hung Lin
Cheng-Kung University, Taiwan

B18-04 (ICICIC-2006-0558)

Sensor Surveillance System for Drought Disaster Based on CMMI Model
Hsu-Yang Kung and Jing-Shiuan Hua
Pingtung University of Science and Technology, Taiwan

B18-05 (ICICIC-2006-0620)

An Accurate Frequency Estimator of Single Sinusoid in Gaussian Colored Noise
Shuangping Liu, Wang Xu, and Zhigang Wang
Information Engineering University, China

B18-06 (ICICIC-2006-0547)

A Power Iteration Algorithm for ICA Based on Diagonalizations of Non-Linearized Covariance Matrix
Shuxue Ding
The University of Aizu, Japan

B18-07 (ICICIC-2006-0676)

Oversampling Sigma-Delta Modulator Stabilized by Sub-Bit Nonlinear Feedback Loop Technique
Chian C. Ho and Chi-Wei Chen
Yunlin University of Science and Technology, Taiwan

B18-08 (ICICIC-2006-0700)

Vowel Synthesis Based on the Spectral Morphing and Its Application to Speaker Conversion
Yuichi Ueda, Minako Hirota, and Tadashi Sakata
Kumamoto University, Japan

B18-09 (ICICIC-2006-0701)

Monaural Speech Separation Based on Computational Auditory Scene Analysis and Objective Quality Assessment of Speech
Peng Li, Yong Guan, Bo Xu, and Wenju Liu
Chinese Academy of Sciences, China

B18-10 (ICICIC-2006-0710)

Decomposition of Speech Signal into a Periodic and an Aperiodic Part
Mangui Liang, Qi Hu, and Shouzeng Huang
Beijing Jiaotong University, China

Keynote Speech C

Theme: Knowledge Acquisition Tool Established by Data with Their Evaluation – SOR Network –

Speaker: Prof. Takeshi Yamakawa

Abstract

Human experts can model the outer events in their brain by watching the behavior of the system of interest. Many data of cause-and-result relationship are summarized to acquire the knowledge which is utilized for effective inference. The knowledge is represented in the form of a set of IF-THEN rules and each one includes fuzzy linguistic terms to obtain the smaller number of IF-THEN rules than the number of raw data, which was expected by Lotfi A. Zadeh (1965).

A human brain facilitates the topological mapping of the external complex information (multiple-dimensional) to the cortex (two-dimensional) by sensing and watching. The topological mapping was modeled as SOM (Self-Organizing Maps) by Teuvo Kohonen (1982), which enables the vector quantization and the reduction of multiple dimension of information to one or two dimensions (visualization of similarities). Since the SOM visualizes, on the competitive layer, the similarity of raw information, it can be utilized in the field of pattern classification, data analysis, and so on. However, it cannot model the input-output characteristics of the system of interest, that is, it cannot represent the knowledge of a human expert.

In order to squeeze out the essence from the data set with evaluation obtained by trial and error, the novel modeling tool was developed by the author (1999), which is the extension of SOM and in which the input-output relationship of the system is mapped onto the competitive layer. The system is named as self-organizing relationship network (SOR network). A set of units on the competitive layer of the SOR network after learning exhibits a set of typical input-output characteristics of the system of interest and thus the network achieves the knowledge acquisition (IF-THEN rules) from the raw data with evaluation.

The evaluation for each data necessary for the learning of the SOR network is possibly intuitive and deterministic. This paper presents three applications of SOR network, (1) image enhancement of photograph as intuitive evaluation, (2) power system stabilizer as deterministic evaluation and (3) trailer-truck back-up control as deterministic evaluation.

Biography

Prof. Takeshi Yamakawa is a professor of Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology (KIT), Japan. He established a foundation, Fuzzy Logic Systems Institute (FLSI), in Japan in 1990 in order to promote the international collaboration on fuzzy logic, neural networks and other soft computing, which are the new paradigms to realize the advanced intelligent systems. He is also the chairman of FLSI. His main research interest lies on hardware implementation of fuzzy systems, fuzzy neural networks, chaotic systems and self-organizing systems. He is currently working as the project leader of the Center of Excellence entitled "World of Brain Computing Interwoven out of Animals and Robots".

Prof. Yamakawa plays Karate (Japanese traditional martial arts) and possesses a black belt (5th Dan). And he likes swimming, horse riding and monocycle as well. His interest also lies on Shakuhachi and Sengen, which are Japanese traditional musical instruments.

Session C01 (Invited Session ICICIC-2006-IS15)

Session Title: Fractional Fourier Transform and Its Applications

Session Chair: Ran Tao, Beijing Institute of Technology, China

Fucai Zhou, Northeastern University, China

C01-01 (ICICIC-2006-IS15-001)

Interpolation of Discrete Chirp-periodic Signals Based on Fractional Fourier Transform

Bing-Zhao Li, Ran Tao, and Yue Wang

Beijing Institute of Technology, China

C01-02 (ICICIC-2006-IS15-002)

2-D DOA Estimation of Wideband LFM Signal in Fractional Fourier Domain

Yanhong Zhang, Lin Qi, Xiaomin MU, and Shouyi Yang

Zhengzhou University, China

C01-03 (ICICIC-2006-IS15-003)

The Analysis of Resolution of the Discrete Fractional Fourier Transform

Bing Deng and Ran Tao

Beijing Institute of Technology, China

C01-04 (ICICIC-2006-IS15-004)

The OFDM System Based on the Fractional Fourier Transform

Enqing Chen, Ran Tao, and Xiangyi Meng

Beijing Institute of Technology, China

C01-05 (ICICIC-2006-IS15-006)

DOA Estimation of Coherent Wideband LFM Signals Based on Fractional Fourier Transform

Haitao Qu, Lin Qi, Xiaomin Mu, and Shouyi Yang

Zhengzhou University, China

C01-06 (ICICIC-2006-IS15-007)

Image Encryption Based on a Novel Reality- Preserving Fractional Fourier Transform

Yi Xin, Ran Tao, and Yue Wang

Beijing Institute of Technology, China

C01-07 (ICICIC-2006-1022)

Ocean Wave Simulation under Wind Change Effect

Xin Zhao, Fengxia Li, Shouyi Zhan, and Zhisheng Li

Beijing Institute of Technology, China

C01-08 (ICICIC-2006-0377)

Existence and Uniqueness Property of the Three-Dimensional Fast Multipole-BEM for Potential Problems

Yiming Chen, Weiwei Wang, Hailian Gui, Lamei Tong, and Jie Chen

Yanshan University, China

C01-09 (ICICIC-2006-0383)

The Boundary Mixed Variational Inequality for Frictional Contact Problem in Elasticity

Yiming Chen, Hailian Gui, Weiwei Wang, and Weiwei Su

Yanshan University, China

C01-10 (ICICIC-2006-0396)

Researches on Properties of Generalized Normalization Coefficient in NML Distribution

Fucai Zhou, Ping Sun, and Jinying Wang

Northeastern University, China

Session C02 (Invited Session ICICIC-2006-IS16)

Session Title: Multimedia Security and Applications

Session Chair: Anthony T.S. Ho, University of Surrey, UK

Yong Zhang, Harbin Institute of Technology, China

C02-01 (ICICIC-2006-IS16-001)

Analysis of Error Probability of Orthogonal Dirty-Paper Codes in Watermarking Applications

Xiaotian Xu, Yong Liang Guan, and Kah Chan Teh

Nanyang Technological University, Singapore

C02-02 (ICICIC-2006-IS16-002)

Efficient Video Authentication for H.264/AVC

Jing Zhang and Anthony. T. S. Ho

Nanyang Technology University, Singapore

C02-03 (ICICIC-2006-IS16-003)

On Watermarking/Fingerprinting for Copyright Protection

Hans Georg Schaathun

University of Surrey, UK

C02-04 (ICICIC-2006-IS16-004)

Performance Evaluation of a Steganographic Method for Digital Images Using Side Match

Suk-Ling Li, Kai-Chi Leung, L.M. Cheng, and Chi-Kwong Chan

City University of Hong Kong, China

C02-05 (ICICIC-2006-IS16-005)

Data Hiding in Images by Adaptive LSB Substitution Based on the Pixel-Value Differencing

Suk-Ling Li, Kai-Chi Leung, L.M. Cheng, and Chi-Kwong Chan

City University of Hong Kong, China

C02-06 (ICICIC-2006-IS16-006)

Image Authentication and Restoration Using Irregular Sampling for Traffic Enforcement Applications

Xunzhan Zhu, Anthony T. S. Ho, and Pina Marziliano

University of Surrey, UK

C02-07 (ICICIC-2006-0936)

A New Data Hiding Method in Binary Images

Zongqing Li and Hongbin Zhang

Beijing University of Technology, China

C02-08 (ICICIC-2006-0941)

A Multipurpose Wavelet-based Image Watermarking

Chin-Chen Chang, Wei-Liang Tai, and Chia-Chen Lin

Feng Chia University, Taiwan

C02-09 (ICICIC-2006-0673)

An Image Watermarking Scheme with Tamper Detection and Recovery

Shinfeng D. Lin, Yu-Chan Kuo and Yu-Hsun Huang

Dong Hwa University, Taiwan

C02-10 (ICICIC-2006-0996)

Copyright Protection of Web Applications through Watermarking

Ronghui Tu, Feiyuan Wang, Jiying Zhao, and Abdulmotaleb El Saddik

University of Ottawa, Canada

Session C03

Session Title: Signal Processing (III)

Session Chair: Kazuya Takeda, Nagoya University, Japan

Ruizhen Zhao, Beijing Jiaotong University, China

C03-01 (ICICIC-2006-0782)

A Speech Endpoint Detection Method Based on Wavelet Coefficient Variance and Sub-Band Amplitude Variance

Xueying Zhang, Zhefeng Zhao, and Gaofeng Zhao

Taiyuan University of Technology, China

C03-02 (ICICIC-2006-0805)

Shift-Invariant Contourlet Transform and Its Application to Stereo Matching

Hui Ding, Mengyin Fu, and Meiling Wang

Beijing Institute of Technology, China

C03-03 (ICICIC-2006-0813)

An Anamnestic Semantic Tree-Based Relevance Feedback Method in CBIR System

XiaoXia Xie, Yao Zhao, and ZhenFeng Zhu

Beijing Jiaotong University, China

C03-04 (ICICIC-2006-0271)

Design and Implementation of Operational Effectiveness Evaluation Simulation System for ECM

Zhisheng Li, Junshan Li, Shuai Liu, Wei Yang, and Xin Zhao

Xi'an Research Inst. of Hi-Tech, China

C03-05 (ICICIC-2006-0767)

A Design Approach for 2-D Linear-Phase Filters with Quadrant Symmetry

Xiao-hua Wang, Yi-gang He, Xian-zhi Meng, and Jie Xiong

Changsha University of Science and Technology, China

C03-06 (ICICIC-2006-0866)

A Combined Optimization Method of Finite Wordlength FIR Filters

Jiaqing Qiao, Ping Fu, and Shengwei Meng

Harbin Institute of Technology, China

C03-07 (ICICIC-2006-0245)

Using ICA to Remove Eye Blink and Power Line Artifacts in EEG

Zhaojun Xue, Jia Li, Song Li, and Baikun Wan

Tianjin University, China

C03-08 (ICICIC-2006-1072)

Switched to B09

C03-09 (ICICIC-2006-0994)

Optimal Filtering for Linear Systems with Multiple State and Observation Delays

Michael Basin, Rodolfo Martinez-Zuniga, and Edgar Sanchez

Autonomous University of Nuevo Leon, Mexico

C03-10 (ICICIC-2006-1006)

Fast Surface Simplification Based on Weighted Rotation of Normal

Shixiang Jia, Yongsheng Zhao, Xiaofeng Zhang, and Lingyun Li

Ludong University, China

Session C04

Session Title: Process Monitoring and Control (II)

Session Chair: Tsutomu Miki, Kyushu Institute of Technology, Japan

Shyh-Chour Huang, Kaohsiung University of Applied Sciences, Taiwan

C04-01 (ICICIC-2006-0300)

Analysis on Isolation Effect to Forced Vibration of a Membrane-typed Air Spring

Wanjian Yin, Shaopu Yang, and Yongjun Shen

Beijing Jiaotong University, China

C04-02 (ICICIC-2006-0636)

Development of Integration Prediction Model for Alumina Raw Slurry Quality

Qiu Zhifeng, Gui Weihua, Yang Chunhua, and Wang Yalin

Central South University, China

C04-03 (ICICIC-2006-0656)

Delay Compensation for Networked Control Systems

Wang Zhiwen and Guo Ge

Lanzhou University of Technology, China

C04-04 (ICICIC-2006-0781)

Optimal Design of Experiments for Identifying the Model Parameters of Gyroscope on a Centrifuge and

Vibration Table Compound Test System

Yuegang Wang

Xi'an Research Inst. of Hi-Tech, China

C04-05 (ICICIC-2006-0804)

Weather Sensor Fault Detection with Time-Dependent Recursive Thresholds

Vesa Hasu, Heikki Koivo, and Jani Poutiainen

Helsinki University of Technology, Finland

C04-06 (ICICIC-2006-0830)

Modelling and Simulation of Ultrasonic Phased Array in Pipe Flaw Detection

Xianglin Zhan, Shili Chen, Zhoumo Zeng, Jian Li, Shijiu Jin, and Zhijun Li

Tianjin University, China

C04-07 (ICICIC-2006-1024)

Early Identification of Machine Fault Based on Kernel Principal Components Analysis

Liu Yibing, Ma Zhiyong, Qian He, and Lv Peng

North China Electric Power University, China

C04-08 (ICICIC-2006-1107)

Optimal Design of Microgripper

Shyh-Chour Huang and Chi-Ming Lee

Kaohsiung University of Applied Sciences, Taiwan

C04-09 (ICICIC-2006-0873)

A Backward-traversing Method for Subcircuit Scheduling of Relaxationbased Circuit Simulation

Chun-Jung Chen, Chih-Jen Lee, Jung-Lang Yu, and Tai-Ning Yang

Chinese Culture University, Taiwan

C04-10 (ICICIC-2006-0790)

An Effective Simple Shepherding Algorithm Suitable for Implementation to a Multi-mobile Robot System

Tsutomu Miki and Tetsuya Nakamura

Kyushu Institute of Technology, Japan

Session C05

Session Title: Pattern Recognition and Classification (II)

Session Chair: Masami Konishi, Okayama University, Japan
Zhe-Ming Lu, Harbin Institute of Technology, China

C05-01 (ICICIC-2006-0004)

A Novel Skin Clustering Method for Face Detection

Wei-Min Zheng, Zhe-Ming Lu, and Xiu-Na Xu
Chinese Academy of Sciences, China

C05-02 (ICICIC-2006-0343)

A New Feature Extraction Method Based on Feature Integration

Yi Liu and Caiming Zhang
Shandong University, China

C05-03 (ICICIC-2006-0218)

Research on Vehicle License Plate Location Based on Neural Networks

Gang Li, Ruili Zeng, and Ling Lin
Tianjin University, China

C05-04 (ICICIC-2006-0225)

Script Identification of Document Image Analysis

Juan Cheng, Xijian Ping, Guanwei Zhou, and Yang Yang
Zhengzhou Information Science and Technology Institute, China

C05-05 (ICICIC-2006-0240)

The Detection System of Oil Tube Defect Based on Multisensor Data Fusion by Classify Support Vector Machine

Jingwen Tian, Meijuan Gao, and Kai Li
Beijing Union University, China

C05-06 (ICICIC-2006-0621)

A Fast Document Classification algorithm based on improved KNN

Ge Guo, Xijian Ping, and Gang Chen
Zhengzhou Information Science and Technology Institute, China

C05-07 (ICICIC-2006-0696)

Application of Extension Neural Network for Classification with Incomplete Survey Data

Chao Lu, Xue-Wei Li, and Hong-Bo Pan
Beijing Jiaotong University, China

C05-08 (ICICIC-2006-1050)

Integrated Clustering Analysis of Microorganism Classification

Kun-Lin Hsieh, Cheng-Chang Jeng, I-Ching Yang, and Chun-Nan Lin
Taitung University, Taiwan

C05-09 (ICICIC-2006-0181)

Extraction and Application of the Signature Biostatistics Features

Shu-Ren Zhu, Hui-Hui Hu, and Wei-Qin Li
GuangDong University of Business Studies, China

C05-10 (ICICIC-2006-1047)

Pattern Recognition Based on All Set Theory and SPA in Complex System

Liang Dong, Guangjun Li, and Zhongxiong He
Beijing Jiaotong University, China

Session C06

Session Title: Database and Software Systems

Session Chairs: Zhen Han, Beijing Jiaotong University, China

Tung-Kuan Liu, Kaohsiung First University of Science and Technology, Taiwan

C06-01 (ICICIC-2006-0147)

An Integrated Access Control Model of Distributed Database Systems

Xin Liu, Zhen Han, and Chang-Xiang Shen

Beijing Jiaotong University, China

C06-02 (ICICIC-2006-0637)

On an Evaluation of Transformation Languages in a Fully XML-driven Framework for Video Content Adaptation

Davy De Schrijver, Wesley De Neve, Davy Van Deursen, Jan De Cock, and Rik Van de Walle

Ghent University, Belgium

C06-03 (ICICIC-2006-0584)

Study of Priority Inversion in Embedded Linux

Chun-Tao Man, Peng Li, and Yan Li

Harbin University of Science and Technology, China

C06-04 (ICICIC-2006-0199)

Software Complexity Based Remote Attestation

Xiao-Yong Li, Zhen Han, and Chang-Xiang Shen

Beijing Jiaotong University, China

C06-05 (ICICIC-2006-0519)

Towards an Engineering Change in Agent Oriented Software Engineering

Xiao Xue, Junfang Zeng, and Liding Liu

Chinese Academy of Sciences, China

C06-06 (ICICIC-2006-0549)

Application-Layer Context-Aware Services for Pervasive Computing Environments

Hsu-Yang Kung and Ching-Yu Lin

Pingtung University of Science and Technology, Taiwan

C06-07 (ICICIC-2006-0600)

A Simulation System for Simultaneous Localization and Mapping of Mobile Robots

Xuefeng Dai, Dan Lv, Shudong Liu, and Yan Shi

Qiqihar University, China

C06-08 (ICICIC-2006-0904)

Dynamic Resource Aware Software Configuration for Pervasive Application

Songqiao Han, Shensheng Zhang, and Yong Zhang

Shanghai Jiaotong University, China

C06-09 (ICICIC-2006-0060)

Classification of a Path in an ER Schema by Using the Notions of Corresponding and Representing

Qinsheng Zhuang and Junkang Feng

Beijing Union University, China

C06-10 (ICICIC-2006-0321)

Model-Driven Development of Real-Time Software Based on OMG Standards

Junli Gao, Di Li, and Shixiong Zheng

Guangdong University of Technology, China

Session C07 (Invited Session ICICIC-2006-IS19)

Session Title: Integrated Control and Computing

Session Chair: Feng Xia, Zhejiang University, China

Yang Xiao, Beijing Jiaotong University, China

C07-01 (ICICIC-2006-IS19-001)

Research on Wireless Sensor Networks Routing Protocol for Wetland Water Environment Monitoring

Peng Jiang, Qingbo Huang, Jianzhong Wang, Xiaohua Dai, and Ruizhong Lin

Hangzhou Dianzi University, China

C07-02 (ICICIC-2006-IS19-002)

An Energy-Efficient In-Network Aggregation Query Algorithm for Wireless Sensor Networks

Xiaohua Dai, Feng Xia, Zhi Wang, and Youxian Sun

Zhejiang University, China

C07-03 (ICICIC-2006-IS19-003)

Intelligent Scheduling of Failure-Prone FMS Using Neural Network

Yaguang Kong, Siyu Guo, and Jianzhong Wang

Hangzhou Dianzi University, China

C07-04 (ICICIC-2006-IS19-004)

Maximum Likelihood Localization Algorithm Using Wireless Sensor Networks

Xinghong Kuang and Huihe Shao

Shanghai Jiaotong University, China

C07-05 (ICICIC-2006-IS19-005)

Energy-based Key Management Scheme in Wireless Sensor Networks

Bidi Ying, Huifang Chen, Wendao Zhao, and Peiliang Qiu

Zhejiang University, China

C07-06 (ICICIC-2006-IS19-006)

Design and Implement a Fuzzy-Smith Control Notification Service Event Channel

Xiaoan Shi, Xingshe Zhou, and Huaxin Yao

Northwestern Polytechnical University, China

C07-07 (ICICIC-2006-IS19-007)

PMSM Control with Port-Controlled Hamiltonian Theory

Jun Qiu and Guangzhou Zhao

Zhejiang University, China

C07-08 (ICICIC-2006-IS19-008)

A Distributed Multi-objective Optimal Algorithm Based on MAS

Fujiang Jin and Lan Wang

Huaqiao University, China

C07-09 (ICICIC-2006-IS19-009)

Adaptive Distributed Compression Algorithm for Wireless Sensor Networks

Hui Dong, Jiangang Lu, and Youxian Sun

Zhejiang University, China

C07-10 (ICICIC-2006-IS19-010)

Design and Simulation of Function Block Based Networked Control Systems

Wenhong Zhao and Feng Xia

Zhejiang University of Technology, China

Session C08 (Invited Session ICICIC-2006-IS20)

Session Title: Models and Algorithms for Optimization

Session Chair: Chao-Hsing Hsu, Chienkuo Technology University, Taiwan
Der-Fa Chen, Changhua University of Education, Taiwan

C08-01 (ICICIC-2006-IS20-001)

Robust Image Segmentation using Modified Edge-Following Scheme with Automatically-Determined Thresholds

Y. B. Chen and Oscar T.-C. Chen

Chienkuo Technology University, Taiwan

C08-02 (ICICIC-2006-IS20-003)

Implementation and Self-Tuning Adaptive Control Design of an Electromagnetic Submicro-Positioner

Sung-Yu Hsieh, Zhao-Kai Wu, and Mei-Yung Chen

National Taiwan University, Taiwan

C08-03 (ICICIC-2006-IS20-004)

One-Server Private Information Retrieval Scheme Combined with Mutual Authentication by ElGamal Signature

Chun-Hua Chen, Jinn-Ke Jan, and Chao-Hsing Hsu

Chung-Hsing University, Taiwan

C08-04 (ICICIC-2006-IS20-005)

Frequency Scaling of Adaptive Digital Filter Design by Poleplacement Technique

Kai-chao Yao and Der-Fa Chen

Changhua University of Education, Taiwan

C08-05 (ICICIC-2006-IS20-006)

Adaptive Pattern Nulling Design of Linear Array Antenna by Phase-Only Perturbations Using Memetic Algorithms

Chao-Hsing Hsu, Wen-Jye Shyr, and Chun-Hua Chen

Chienkuo Technology University, Taiwan

C08-06 (ICICIC-2006-0024)

A Game Model Based Co-evolutionary Algorithms for Multiobjective Optimization Problems

Gaoping Wang and Yongji Wang

Huazhong University of Science and Technology, China

C08-07 (ICICIC-2006-0102)

Task Scheduling Model Design Using Hybrid Genetic Algorithm

Shijue Zheng, Wanneng Shu, and Shangping Dai

Hua Zhong Normal University, China

C08-08 (ICICIC-2006-0113)

Wavelets Neural Network Based on Particle Swarm Optimization Algorithm for Fault Diagnosis

Changcheng Xiang, Xiyue Huang, Daronghuang, and Jia Hu

Chongqing University, China

C08-09 (ICICIC-2006-0139)

Timetable Scheduling Using Particle Swarm Optimization

Shu-Chuan Chu, Yi-Tin Chen, and Jiun-Huei Ho

Cheng-Shiu University, Taiwan

C08-10 (ICICIC-2006-0149)

Optimize Control of the Metro Bogie Test Platform add-load system based on GA

Wei Fu and Jinwen Zhang

Huaihai Institute of Science and Technology, China

Session C09

Session Title: Pattern Recognition and Classification (III)

Session Chairs: Yunde Jia, Beijing Institute of Technology, China

Weibin Zhu, Beijing Jiaotong University, China

C09-01 (ICICIC-2006-0230)

Object Decomposition based on Superellipses

Wu-Chih Hu

Penghu University, Taiwan

C09-02 (ICICIC-2006-0812)

A New Information Combination Approach for Character Recognition with a Limited Lexicon

Xianmei Wang, Yang Yang, and Kang Huang

Beijing University of Science and Technology, China

C09-03 (ICICIC-2006-0820)

A Key Frame Selection-Based Facial Expression Recognition System

S.M. Guo, Y.A. Pan, Y.C. Liao, C.Y. Hsu, J. S.H. Tsai, and C.I. Chang

Cheng-Kung University, Taiwan

C09-04 (ICICIC-2006-0860)

Supervised Isomap with Explicit Mapping

Chung-Guang Li and Jun Guo

Beijing University of Posts and Telecommunications, China

C09-05 (ICICIC-2006-0871)

Dynamic Minimum Subband Spectral Subtraction and Its Application in Robust Speech Recognition

Xin Ma and Yuhua Peng

Chinese Academy of Sciences, China

C09-06 (ICICIC-2006-0880)

Ear Recognition Based on Statistical Shape Model

Lu Lu, Xiaoxun Zhang, Youdong Zhao and Yunde Jia

Beijing Institute of Technology, China

C09-07 (ICICIC-2006-0896)

Research on Symbol Recognition for Mathematical Expressions

Xue-Dong Tian, Hai-Yan Li, Xin-Fu Li, and Li-Ping Zhang

Hebei University, China

C09-08 (ICICIC-2006-0913)

A Robust Speech Recognition Based on the Feature of Weighting Combination ZCPA

Xueying Zhang and Wuzhou Liang

Taiyuan University of Technology, China

C09-09 (ICICIC-2006-0939)

A Novel Joint De-Interleaving/Recognition System of Radar Pulse Sequence

Qiang Guo, Xingzhou Zhang, and Zheng Li

Harbin Engineering University, China

C09-10 (ICICIC-2006-1000)

Non-Alignment Fingerprint Matching Based on Local and Global Information

Xuying Zhao, Yangsheng Wang, Jin Qi, and Xiaolong Zheng

Chinese Academy of Sciences, China

Session C10

Session Title: Intelligent Systems

Session Chair: Hsiang-Cheh Huang, Kaohsiung Marine University
Jian Yu, Beijing Jiaotong University, China

C10-01 (ICICIC-2006-0891)

Efficient Improvement of FT-tree Based Frequent Itemsets Mining Algorithms

Yong Qiu and Yong-Jie Lan

Shandong Institute of Business and Technology, China

C10-02 (ICICIC-2006-0220)

An Agent-Based Adaptive Learning System (ABALS)

Tianyun Chen and Jianping Zhang

Zhejiang Normal University, China

C10-03 (ICICIC-2006-0878)

Stability Analysis of Large-Scale Agent-Based Systems

Ali A. Jamshidifar and Ahmad Afshar

AmirKabir University of Technology, Iran

C10-04 (ICICIC-2006-0979)

Research on Multi-agent System Model of Diesel Engine Fault Diagnosis by Case-based Reasoning

Chunhua Zhao, Xinze Zhao, Zongqi Tan, and Xinping Yan

China Three Gorges University, China

C10-05 (ICICIC-2006-0262)

Bayesian Networks for Intelligent Decision of Airborne Weapon System

Bo Li and Xiaoguang Gao

Northwestern Polytechnical University, China

C10-06 (ICICIC-2006-0273)

An Innovation Filtering Multiple Model Algorithm for Integrated Navigation System

Rong-Chun Zang and Ping-Yuan Cui

Harbin Institute of Technology, China

C10-07 (ICICIC-2006-0899)

An Ontology Learning Model in Grid Information Services

He Hu and Xiaoyong Du

Renmin University of China, China

C10-08 (ICICIC-2006-0269)

An Affective Intelligent Tutoring System Based on Artificial Psychology

Xiangjie Qiao, Zhiliang Wang, Jun Yu, and Xiuyan Meng

Beijing University of Science & Technology, China

C10-09 (ICICIC-2006-0762)

Distributional Similarity in the Varied Order of Syntactic Spaces

Dongqiang Yang and David M.W. Powers

Flinders University of South Australia, Australia

C10-10 (ICICIC-2006-0879)

Bilingual Phrase Extraction from N-Best Alignments

Yong-Zeng Xue, Sheng Li, Tie-Jun Zhao, Mu-Yun Yang, and Jun Li

Harbin Institute of Technology, China

Session C11

Session Title: Neural Networks / Support Vector Machines

Session Chair: Weibin Liu, Beijing Jiaotong University, China

Chuan-Yu Chang, Yulin University of Science and Technology

C11-01 (ICICIC-2006-0822)

Neural Network Based Diagnosis Method for Looper Height Controller of Hot Strip Mills

Yoshihiro Abe, Masami Konishi, and Jun Imai

Okayama University, Japan

C11-02 (ICICIC-2006-0841)

Information Geometry Approach to the Model Selection of Neural Networks

Ziang Lv, Siwei Luo, Yunhui Liu, and Yu Zheng

Beijing Jiaotong University, China

C11-03 (ICICIC-2006-0855)

Neural Network Optimization for Hardware-Software Partitioning

Tianyi Ma, Xinglan Wang, and Zhiqiang Li

Harbin University of Commerce, China

C11-04 (ICICIC-2006-1062)

Neural Network Ensemble Based Ant Colony Classification Rule Mining

Chuan Chen, Youqing Chen, and Junbing He

Sun Yat-sen University, China

C11-05 (ICICIC-2006-1095)

Neural Network Approach to Vibration Feature Selection and Multiple Fault Detection for Mechanical Systems

Keming Wang

Shenyang Institute of Aeronautical Engineering, China

C11-06 (ICICIC-2006-0817)

Load Forecasting Based on Chaotic Support Vector Machine with Incorporated Intelligence Algorithm

Jingmin Wang and Guoqiao Ren

North China Electric Power University, China

C11-07 (ICICIC-2006-0857)

A Support Vector Machine training Algorithm based on Cascade Structure

Zhongwei Li

NanKai University, China

C11-08 (ICICIC-2006-0889)

Single-Trial VEP Estimation Using Support Vector Machines in Single-Channel

Jin-An Guan

South-Central University for Nationalities, China

C11-09 (ICICIC-2006-1089)

The Support Vector Machine (SVM) Based Near-Infrared Spectrum Recognition of Leaves Infected by the Leafminers

Wu Dake and Ma Chengwei

China Agricultural University, China

C11-10 (ICICIC-2006-0324)

Research on an Algorithm of Support Vector Stepwise Regression

Shaohua Zeng, Yan Wei, Tingcai Duan, and Changxiu Cao

Chongqing University, China

Session C12

Session Title: Information Hiding and Security (II)

Session Chair: Zhe-Ming Lu, Harbin Institute of Technology, China
Hans Georg Schaathun, University of Surrey, UK

C12-01 (ICICIC-2006-0052)

New Audio Embedding Technique Based on Neural Network

Huiqin Wang, Li Mao, and Keshan Xiu

Xi'an Architecture and Technology University, China

C12-02 (ICICIC-2006-0106)

Rotation, Scaling and Translation Invariant Blind Digital Watermarking for 3D Mesh Models

Wang LIU and Sheng-he SUN

Harbin Institute of Technology, China

C12-03 (ICICIC-2006-0703)

An Image Watermarking Scheme Using Pattern Coding Technique

Chin-Chen Chang, Tung-Shou Chen, and Hsien-Chu Hsia

Feng Chia University, Taiwan

C12-04 (ICICIC-2006-0044)

Robustness Analysis of Watermarking Schemes Based on Two Novel Transforms

Jinwei Wang, Guangjie Liu, Yuwei Dai, Zhiquan Wang, and Shiguo Lian

Nanjing University of Science and Technology, China

C12-05 (ICICIC-2006-0666)

Multimedia Digital Watermarking Detection System Based on Watermark Mobile Agent

Hong Yin, Zengqiang Chen, and Zhuzhi Yuan

Nankai University, China

C12-06 (ICICIC-2006-1112)

Adaptive Watermarking Model and Detection Performance Analysis

Rongrong Ni and Qiuqi Ruan

Beijing Jiaotong University, China

C12-07 (ICICIC-2006-1103)

An Improved Digital Watermarking Scheme in the Domain of Vector Quantization

Chao-Chin Chang, Chin-Shiuh Shieh, Jeng-Shyang Pan, Bin-Yih Liao, Lin Hong, and Hung-Jen Lee

Kaohsiung University of Applied Sciences, Taiwan

C12-08 (ICICIC-2006-0923)

Reversible Data Embedding for Tamper-Proof Watermarks

HyeRan Lee and KyungHyun Rhee

Pukyong National University, Korea

C12-09 (ICICIC-2006-0007)

Robust Image Watermarking Algorithm Based on Predictive Vector Quantization

Yue-Nan Li, Chun-He Liu, Zhe-Ming Lu, and Jeng-Shyang Pan

Harbin Institute of Technology, China

C12-10 (ICICIC-2006-0026)

A Transformed-Matrix Asymmetric Watermarking Scheme

Yang Shuangyuan, Liu Zhengyu, Han Shuihua, and Zhang Xikun

Xiamen University, China

Session C13 (Invited Session ICICIC-2006-IS21)

Session Title: Control of Time-delay Systems

Session Chair: Shengyuan Xu, Nanjing University of Science and Technology, China
Xiangqin Liu, Beijing Jiaotong University, China

C13-01 (ICICIC-2006-IS21-001)

Stability Analysis for Time-delay Fuzzy Systems Using Augmented Lyapunov Functional Approach

Chong Lin, Yong He, Lei Guo, and Shengyuan Xu
Qingdao University, China

C13-02 (ICICIC-2006-IS21-002)

Output Feedback Control of Discrete Systems with Time-varying Delay

Yuanqing Xia, P. Shi, G. P. Liu, and D. Rees
Beijing Institute of Technology, China

C13-03 (ICICIC-2006-IS21-003)

Guaranteed Cost Control for Uncertain Stochastic Systems with State and Input Delays

Yamei Gong and Shengyuan Xu
Nanjing University of Science and Technology, China

C13-04 (ICICIC-2006-IS21-005)

Dynamics of Internet Congestion Control Algorithm with Communication Delays

Hong-Yong Yang, Yong-Sheng Zhao, and Fu-Sheng Wang
Ludong University, China

C13-05 (ICICIC-2006-IS21-007)

Robust L_2 - L_∞ Filtering for Uncertain Systems with Pole and Error Variance Constraints

Xiaohua Liu and Lina Zhou
Ludong University, China

C13-06 (ICICIC-2006-IS21-008)

Dual-rate Predictive Control for Time Delays

Xiaohua Liu and Jing Liu
Ludong University, China

C13-07 (ICICIC-2006-IS21-009)

Active Control for Structural Systems with Nonlinear Perturbations and Exogenous Disturbances

Lei Guo, Lingyao Wu, Wenzhang Li, and Haixia Wang
Southeast University, China

C13-08 (ICICIC-2006-1075)

Observer-based Fault Detection for Networked Control Systems with Random Time-delays

Maiying Zhong, Yunxia Liu, and Chuanfeng Ma
Shandong University, China

C13-09 (ICICIC-2006-0935)

The Parametrization of All Stabilizing Repetitive Controllers for Multiple-Input/Multiple-Output Time-Delay Systems

Kou Yamada, Keiji Satoh, and Yeju Mei
Gunma University, Japan

C13-10 (ICICIC-2006-0517)

Stability Analysis of Cross Beam System with Two Time Delays

YU Hongyun, ZOU Huichao, and XIAO Bin
Ludong University, China

Session C14 (Invited Session ICICIC-2006-IS22)

Session Title: Informational and Mathematical Models on Biomedical Elements and Organs
Session Chair: Masahiro Nakano, University of Occupational and Environmental Health, Japan
Houjin Chen, Beijing Jiaotong University, China

C14-01 (ICICIC-2006-IS22-001)

Stochastic Mechanism and Its Dynamics in Biological System

Hiroyuki Matsuura, Nobuo Noda, Kazuyuki Koide, Tetsuya Nemoto, Kadahiro Kin, Ken-ichi Makino, and Masahiro Nakano
National Institute for Longevity Science, Japan

C14-02 (ICICIC-2006-IS22-002)

Numerical Analysis of Blood Flow in Vessels

Nobuo NODA, Masahiro NAKANO, Hiroyuki MATSUURA, Tetsuya NEMOTO, and Kazuharu Koide
National Center for Geriatrics and Gerontology, Japan

C14-03 (ICICIC-2006-IS22-003)

Design of RT-PCR Primers Based on Informational Method

Ken-ichi Makino and Hideyasu Hirano
Showa Hospital, Akane Medical Corporation, Japan

C14-04 (ICICIC-2006-IS22-004)

Simulations on the Population and Disease in Japan

Kazuharu Koide, Hiroyuki Matsuura, Nobuo Noda, and Masahiro Nakano
National Center for Geriatrics and Gerontology, Japan

C14-05 (ICICIC-2006-IS22-005)

Cell Preservation by Application of Tardigrada's Adaptation to Extreme Circumstances

Tetsuya NEMOTO, Tadahiro KIN, Masahiro NAKANO, Akira SHIMAMOTO, Fumio NOGATA, and Hiroyuki MATSUURA
National Institute for Longevity Sciences, Japan

C14-06 (ICICIC-2006-IS22-006)

Molecular Dynamics Simulation of Complex Phase Transition of Clathrate Hydrates in Living Body

Tadahiro Kin, Tetsuya Nemoto, Ken-ichi Makino, and Kazuharu Koide
Kyushu University, Japan

C14-07 (ICICIC-2006-IS22-007)

Management and Control of Vibrational Motions of Muscle Elements

Masahiro Nakano, Hiroyuki Matsuura, Tetsuya Nemoto, and Nobuo Noda
University of Occupational and Environmental Health, Japan

C14-08 (ICICIC-2006-0687)

Rectification and Calibration for Biomedical Image Processing

Jupeng Li, Houjin Chen, Ying Wang, and Wei Wang
Beijing Jiaotong University, China

C14-09 (ICICIC-2006-0721)

Speech Rate Control for the Compound Hearing Aid Processing

Dan ZHANG, Tadashi SAKATA, and Yuichi UEDA
Kumamoto University, Japan

C14-10 (ICICIC-2006-0697)

A Registration Method of Fundus Images Based on Edge Detection and Phase-Correlation

Wei Wang, Houjin Chen, Jupeng Li, and Jiangbo Yu
Beijing Jiaotong University, China

Session C15

Session Title: Image Processing / Video Processing

Session Chairs: Hongbin Zhang, Beijing University of Technology, China
Rongrong Ni, Beijing Jiaotong University, China

C15-01 (ICICIC-2006-0640)

Direct Minutiae Matching in Gray-Level Fingerprint Images

Chih-Jen Lee, Tai-Ning Yang, Chun-Jung Chen, and Keng-Li Lin
Chinese Culture University, Taiwan

C15-02 (ICICIC-2006-1020)

The Implementation of a Visual Sensing System for 3-D Control of the RTG Crane

Kuan-chun Huang
Lan-Yang Institute of Technology, Taiwan

C15-03 (ICICIC-2006-1008)

A Novel Shape Coding Scheme for MPEG-4 Visual Standard

Lele Zhou and Saif Zahir
The University of Northern British Columbia, Canada

C15-04 (ICICIC-2006-0864)

Cut-and-Paste Editing over 3D Meshes

Zhanguo Ma, Bo Liu, and Hongbin Zhang
Beijing University of Technology, China

C15-05 (ICICIC-2006-0736)

Video Shot Detection Using Hidden Markov Models with Complementary Features

Weigang Zhang, Jianqiu Lin, Xiaopeng Chen, Qingming Huang, and Yang Liu
Harbin Institute of Technology, China

C15-06 (ICICIC-2006-0760)

Design of a Scalable Computer Cluster for MPEG-4 Parallel Encoder

Po-Kai Chiu, Wen-Yu Su, and Chih-Ping Chu
Cheng Kung University, Taiwan

C15-07 (ICICIC-2006-0766)

An Efficient Implementation of CAVLC for H.264/AVC

Yi-Ming Lin and Pei-Yin Chen
Cheng Kung University, Taiwan

C15-08 (ICICIC-2006-0472)

The System of Multi-Instance Image Query with Heterogeneous Features

Jiann-Jone Chen, Che-Kang Chang, and Chia-Rong Hu
Taiwan University of Science and Technology, Taiwan

C15-09 (ICICIC-2006-0826)

A Programmable Bitstream Parser for Multiple Video Coding Standards

Jiaying Peng, Xing Qin, Jian Yang, Xiaolang Yan, and Xiexiong Chen
ZheJiang University, China

C15-10 (ICICIC-2006-0827)

A Novel Interactive Progressive Decoding Method for Fractal Image Compression

Huaqing Wang, Qiang Wu, Xiangjian He, and Tom Hintz
Sydney University of Technology, Australia

Session C16

Session Title: Cross-discipline Technology (I)
Session Chairs: Yiming Chen, Yanshan University, China
De Xu, Beijing Jiaotong University, China

C16-01 (ICICIC-2006-0430)

A New Method of Numerical Integration
Zhe-Zhao Zeng, Ye Chen, and Wei Zhu
Changsha University of Science and Technology, China

C16-02 (ICICIC-2006-0868)

A New Program-iteration Pattern IGMRES(m) Algorithm Based on the FM-BEM and its Application
Chunxiao Yu, Guangxian Shen, and Yiming Chen
Yanshan University, China

C16-03 (ICICIC-2006-0806)

A New Approach to Graph Seriation
Jin Tang, Chunyan Zhang, Bin Luo
Anhui University, China

C16-04 (ICICIC-2006-1063)

New Region of Interest Image Coding based on Multiple Bitplanes Up-down Shift using improved SPECK Algorithm
Li-Bao Zhang, Xian-Chuan Yu, and Shi-Hong Wang
Beijing Normal University, China

C16-05 (ICICIC-2006-0530)

An Applicable Multiple-level Classification Based on Image Semantic Correlation from User
Hongli Xu, De Xu, Fangshi Wang, and Feifei Fan
Beijing Jiaotong University, China

C16-06 (ICICIC-2006-0801)

Interface Design and QoS Performance of Video Monitor System
Rikun Liao, Yuefeng Ji, and Hui Li
Beijing University of Posts and Telecommunications, China

C16-07 (ICICIC-2006-1007)

Study on the Detection Algorithm of Bridge over Water in SAR Image Based on Fuzzy Theory
Weizhou Zhao, Jianshe Song, and Jie Zhang
Xi'an Research Institute of High-tech, China

C16-08 (ICICIC-2006-0752)

Product and Coproduct of CF Symmetric Group Categories
Kaiqi Zou and Guannan Deng
Dalian University, China

C16-09 (ICICIC-2006-0072)

New Robust Stability Criteria for Uncertain Neural Networks with Time-Varying Delays
Jinhui Zhang, Jiqing Qiu, and Peng Shi
Hebei University of Science and Technology, China

C16-10 (ICICIC-2006-0275)

Hyperspectral Feature Extraction using Selective PCA based on Genetic Algorithm with Subgroups
Ying Liu, Yanfeng Gu, and Ye Zhang
Harbin Institute of Technology, China

Session C17

Session Title: Cross-discipline Technology (II)

Session Chairs: Xiamu Niu, Harbin Institute of Technology, China

Yi-Xian Yang, Beijing University of Post and Telecommunication, China

C17-01 (ICICIC-2006-0947)

An EOQ Model for Multi-Item and Multi-Storehouse Based on New Hybrid Genetic Algorithm

Peixin Zhao and Hong Wang

Shandong University, China

C17-02 (ICICIC-2006-0080)

Symmetric Steganography Secure Against Chosen Message and Original Cover Attacks

Nan Jiang, Jian Wang, Xin-Xin Niu, and Yi-xian Yang

Beijing University of Technology, China

C17-03 (ICICIC-2006-0711)

Cryptanalysis on Generalization of Threshold Signature and Authenticated Encryption for Group Communications

Honglie Zhang, Guoyin Zhang, and Jiguo Li

Qiqihar University, China

C17-04 (ICICIC-2006-0647)

A New Design Scheme of Role-Based Access Control Based on PKI

Yuping Deng, Xiaowei Guo, and Xiamu Niu

Harbin Institute of Technology, China

C17-05 (ICICIC-2006-0046)

Robust VQ-Based Digital Image Watermarking for Noisy Channel

Chuang Lin and Jeng-Shyang Pan

Harbin Institute of Technology, China

C17-06 (ICICIC-2006-0642)

Relational Databases Watermark Technique Based on Content Characteristic

Yong Zhang, Xiamu Niu, Dongning Zhao, Juncao Li, and Siming Liu

Harbin Institute of Technology, China

C17-07 (ICICIC-2006-0596)

Routing Protocols for an Integrated Cellular and Ad-hoc Network with Flexible Access and Their Overhead Analysis

Yumin Wu, Kun Yang, Shaochun Zhong, Wenyong Wang, and Jun Shen

University of Essex, UK