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1. Lv GY, Zheng JJ, Zhang HR  
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IEEE International Conference on Granular Computing, MAY 10-12, 2006  
2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING : 570-573, 2006
2. Ye MY  
[Parameter identification of dynamical systems based on improved particle swarm optimization](#)  
International Conference on Intelligent Computing (ICIC), AUG 16-19, 2006  
INTELLIGENT CONTROL AND AUTOMATION : 351-360, 2006
3. Wang XD, Zhang HR, Zhang CJ, et al.  
[Time series prediction using LS-SVM with particle swarm optimization](#)  
3rd International Symposium on Neural Networks (ISNN 2006), MAY 28-31, 2006  
ADVANCES IN NEURAL NETWORKS - ISNN 2006, PT 2, PROCEEDINGS : 747-752, 2006
4. Liang JZ, Hong J  
[BP learning and numerical algorithm of dynamic systems](#)

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Record 1 of 101

Author(s): Lv, GY (Lv, Ganyun); Zheng, JJ (Zheng, Jinjv); Zhang, HR (Zhang, Hanran)

Title: Multi-tie SVMs classifier based power equipment fault diagnosis

Editor(s): Zhang, YQ; Lin, TY

Source: 2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING 570-573, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Granular Computing

Conference Date: MAY 10-12, 2006

Conference Location: Atlanta, GA

Conference Sponsors: IEEE Computat Intelligence Soc, Georgia State Univ

Author Keywords: power equipment fault diagnosis; DGA; multi-tie SVM classifier

**KeyWords Plus:** INCIPIENT FAULTS; NEURAL-NETWORK; TRANSFORMER; GAS; SYSTEM

**Abstract:** Power equipment fault diagnosis plays a key role in reliable power system operation. Support vector machine (SVM) is a powerful recognition method for the problem with small sampling, nonlinear and high dimension. A multi-tie SVM classifier was applied to fault diagnosis of power equipment in this paper. Content of five diagnostic gases dissolved in oil obtained by dissolved gas analysis (DGA) for power transformer is preprocessed through a special data processing, and six features were extracted for SVMs. Then the multi-tie SVM classifier was trained with the training samples which were extracted by the above data processing. Finally, four types of transformer states were identified by the trained classifier. The test results showed that the classifier had an excellent performance on training speed and reliability.

**Addresses:** Zhejiang Normal Univ, Dept Informat Sci & Engn, Zhejiang, 321004 Peoples R China.

**Reprint Address:** Lv, GY, Zhejiang Normal Univ, Dept Informat Sci & Engn, Zhejiang, 321004 Peoples R China.

**Cited Reference Count:** 20

**Publisher Name:** IEEE

**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA

**ISBN:** 1-4244-0133-X

**Source Item Page Count:** 4

**Subject Category:** Computer Science, Artificial Intelligence; Computer Science, Theory & Methods

**ISI Document Delivery No.:** BEN81

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Record 2 of 101

**Author(s):** Ye, MY (Ye, Meiyong)

**Title:** Parameter identification of dynamical systems based on improved particle swarm optimization

**Editor(s):** Huang, DS; Li, K; Irwin, GW

**Source:** INTELLIGENT CONTROL AND AUTOMATION 351-360, 2006

**Book Series:** LECTURE NOTES IN CONTROL AND INFORMATION SCIENCES, 344

**Language:** English

**Document Type:** Article

**Conference Title:** International Conference on Intelligent Computing (ICIC)

**Conference Date:** AUG 16-19, 2006

**Conference Location:** Kunming, PEOPLES R CHINA

**Conference Sponsors:** IEEE Computat Intelligence Soc, Int Neural Network Soc, Natl Sci Fdn China

**KeyWords Plus:** ALGORITHMS

**Abstract:** Improved Particle Swarm Optimization (IPSO), which is a new robust stochastic evolutionary computation algorithm based on the movement and intelligence of swarms, is proposed to estimate parameters of nonlinear dynamical systems. The effectiveness of the IPSO algorithms is compared with Genetic Algorithms (GAs) and standard Particle Swarm Optimization (PSO). Simulation results of two kinds of nonlinear dynamical systems will be illustrated to show that the more accurate estimations can be achieved by using the IPSO method.

**Addresses:** Zhejiang Normal Univ, Coll Math & Phys, Jinhua, 321004 Peoples R China.

**Reprint Address:** Ye, MY, Zhejiang Normal Univ, Coll Math & Phys, Jinhua, 321004 Peoples R China.

**Cited Reference Count:** 15

**Publisher Name:** SPRINGER-VERLAG BERLIN

**Publisher Address:** HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

**ISSN:** 0170-8643

ISBN: 3-540-37255-5

29-char Source Abbrev.: LECT NOTE CONTR INFORM SCI

Source Item Page Count: 10

Subject Category: Automation & Control Systems; Computer Science, Information Systems

ISI Document Delivery No.: BEZ62

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Record 3 of 101

Author(s): Wang, XD (Wang, Xiaodong); Zhang, HR (Zhang, Haoran); Zhang, CJ (Zhang, Changjiang); Cai, XS (Cai, Xiushan); Wang, JS (Wang, Jinshan); Ye, MY (Ye, Meiyong)

Title: Time series prediction using LS-SVM with particle swarm optimization

Editor(s): Wang, J; Yi, Z; Zurada, JM; Lu, BL; Yin, H

Source: ADVANCES IN NEURAL NETWORKS - ISSN 2006, PT 2, PROCEEDINGS 747-752, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3972

Language: English

Document Type: Article

Conference Title: 3rd International Symposium on Neural Networks (ISSN 2006)

Conference Date: MAY 28-31, 2006

Conference Location: Chengdu, PEOPLES R CHINA

Conference Sponsors: Univ Electr Sci & Technol China, Chinese Univ Hong Kong, Asia Pacific Neural Network Assembly, European Neural Network Soc, IEEE Circuits & Syst Soc, IEEE Computat Intelligence Soc, Int Neural Network Soc, Natl Nat Sci Fdn China, KC Wong Educ Fdn Hong Kong

Abstract: Time series analysis is an important and complex problem in machine learning. In this paper, least squares support vector machine (LS-SVM) combined with particle swarm optimization (PSO) is used to time series prediction. The LS-SVM can overcome some shortcoming in the multilayer perceptron (MLP) and the PSO is used to tune the LS-SVM parameters automatically. A benchmark problem, Henon map time series, has been used as an example for demonstration. It is showed this approach can escape from the blindness of man-made choice of the LS-SVM parameters. It enhances the efficiency and the capability of prediction.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Zhejiang Normal Univ, Coll Math & Phys, Jinhua, 321004 Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-34437-3

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 6

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BET84

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Record 4 of 101

Author(s): Liang, JZ; Hong, J

Title: BP learning and numerical algorithm of dynamic systems  
Editor(s): Zhang, S; Jarvis, R  
Source: AI 2005: ADVANCES IN ARTIFICIAL INTELLIGENCE 914-917, 2005  
Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 3809  
Language: English  
Document Type: Article  
Conference Title: 18th Australian Joint Conference on Artificial Intelligence  
Conference Date: DEC 05-09, 2005  
Conference Location: Sydney, AUSTRALIA  
Conference Sponsors: AFOSR, Asian Off Aerosp Res & Dev  
Conference Host: Univ Technol  
KeyWords Plus: NETWORKS

Abstract: This paper deals with relationship between BP learning for neural networks and numerical algorithm of differential equations. It is proposed that the iteration formula of BP algorithm is equivalent to Euler method of differential dynamic system under certain conditions, and the asymptotic solutions of the two formulas are consistent. It is also proved in theoretic that asymptotic solutions given by BP algorithm are equivalent to that computed by any numerical method for differential dynamic systems under certain conditions. Also, an example to train the BP network by modified numerical method is presented.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Liang, JZ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-30462-2

29-char Source Abbrev.: LECT NOTE ARTIF INTELL

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BDW41

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Record 5 of 101

Author(s): Cai, XS; Wang, XD; Zhang, HR; Lv, GY

Title: Constructive robust control Lyapunov functions for nonlinear systems with disturbance

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 767-771, 2006

Language: English

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: robust control Lyapunov functions; nonlinear systems; disturbance; robust stabilization

KeyWords Plus: STABILIZATION

Abstract: This paper develops a method by which robust control Lyapunov functions of a class of nonlinear systems with disturbance can be constructed systematically. By using the robust control Lyapunov function a feedback control is established to stabilize the nonlinear system. A simulation shows the effectiveness of the method developed in this paper.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Zhejinag, Jinhua 321004 Peoples R China.

Reprint Address: Cai, XS, Zhejiang Normal Univ, Coll Informat Sci & Engn, Zhejinag, Jinhua 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 5

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 6 of 101

Author(s): Wang, XD; Liang, WF; Cai, XS; Lv, GY; Zhang, CJ; Zhang, HR

Title: Application of adaptive least square support vector machines in nonlinear system identification

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 1897-1900, 2006

Language: English

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: Nonlinear systems; identification; support vector machines

KeyWords Plus: NEURAL-NETWORKS

Abstract: Training problem of least squares support vector machine (LS-SVM) is solved by finding a solution to a set of linear equations. This makes online adaptive implementation of the algorithm feasible. In this paper, an adaptive algorithm for the purpose of nonlinear system identification is proposed. Using this training algorithm, a variant of support vector machine has been developed called adaptive LS-SVM. The adaptive LS-SVM is especially useful on online system identification. Several pertinent numerical simulations have shown the validity of the proposed method.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 4

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 7 of 101

Author(s): Wu, ZG; Zhou, WN; Zhang, LF

Title: Robust H-infinity control with alpha-stability constraints for uncertain delay singular systems

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 2295-2298, 2006

Language: English

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: uncertain system; delay singular system; alpha-stability; robust H-infinity control; linear matrix inequality

KeyWords Plus: POLE-PLACEMENT; STATE DELAY

Abstract: The problem of robust H-infinity control with alpha-stability constraints is discussed for a class of delay singular systems with parametric uncertainties. The singular system under consideration is not assumed to be regular. The problem addressed is to design a state feedback controller such that the closed-loop system is not only regular, impulse free and alpha-stable, but also satisfies a prescribed H-infinity performance condition. In terms of linear matrix inequality techniques, the design method of controller is presented.

Addresses: Zhejiang Normal Univ, Math Inst, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Zhou, WN, Zhejiang Normal Univ, Math Inst, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 10

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 4

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 8 of 101

Author(s): Zhang, H; Zhang, CJ; Wang, XD; Xu, XL; Cai, XS

Title: A new support vector machine and its learning algorithm

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 2820-2824, 2006

Language: Chinese

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: learning algorithm; structural risk minimization principle; support vector machine

Abstract: Support vector machine is a learning technique based on the structural risk minimization principle, this paper proposes a new kind of support vector machine(SVM), which modifies the classical SVM formulation to get even simpler dual optimization problem, then gives a quadratic optimization theorem, and according to it derives a multiplicative updates algorithm for solving the dual optimization problem. The updates algorithms converge monotonically to the solution of the optimal problem, and have a simple closed form, Experimental results of simulation indicate the feasibility of the varied regression support vector machine and its training algorithm.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, H, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 10

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 5

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 9 of 101

Author(s): Lu, S; Chen, WZ; Li, M

Title: Fault pattern recognition of rolling bearing based on wavelet packet and support vector machine

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 5516-5520, 2006

Language: Chinese

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: rolling bearing; fault diagnosis; wavelet packet; support vector machine; pattern recognition

KeyWords Plus: TRANSFORM

Abstract: The method of fault diagnosis of rolling bearings based on wavelet packet transform and support vector machine is presented. The key to fault bearings diagnosis is feature extracting and feature classifying. Wavelet packet transform, as a new technique of signal processing, possesses excellent characteristic of time-frequency localization and is suitable for analyzing the time-varying or transient signals. Support vector machine is capable of pattern

recognition and nonlinear regression. According to the frequency domain feature of rolling bearing vibration signal, energy eigenvector of frequency domain is extracted using wavelet packet transform method. Fault pattern of rolling bearing is recognized using support vector machine multiple fault classifier. Theory and experiment shows that such method is available to recognize the fault pattern accurately and provides a new approach to intelligent fault diagnosis.

Addresses: Zhejiang Normal Univ, Coll Senior Technol, Jinhua, 321019 Peoples R China.

Reprint Address: Lu, S, Zhejiang Normal Univ, Coll Senior Technol, Jinhua, 321019 Peoples R China.

Cited Reference Count: 9

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 5

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 10 of 101

Author(s): Cao, ZX; Mei, GY; Ma, SP

Title: Material feeding and management information system in the mixed model general automotive assembly shop

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 7133-7137, 2006

Language: Chinese

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: mixed assembly line; material feeding; management information system

Abstract: The process flow of general automobile assembly and the production characteristic were analyzed in order to feed material timely & properly in the mixed model general automotive assembly shop. Three kinds of material were classified in according to different shape. Material pull systems and the Kanban flow were developed in the condition of JIT production. The Andon system of material based on field-bus was established. How to deal with material by general assembly line when that was in MIN/MAX was presented on the base of analyzing alarm condition. The function module and software architecture based on J2EE of material management information system of the mixed model general assembly line were developed according to the material demand of actual automobile assembly shop. The material information system has been put into practice in an assembly enterprise.

Addresses: Zhejiang Normal Univ, Automot Engr Dept, Jinhua, 321004 Peoples R China.

Reprint Address: Cao, ZX, Zhejiang Normal Univ, Automot Engr Dept, Jinhua, 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 5

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 11 of 101

Author(s): Yang, XH; Xu, JM; Yu, L

Title: Optimal guaranteed cost pollution control for river systems

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 9352-9356, 2006

Language: Chinese

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: river systems; pollution control; guaranteed cost control; interconnected time-delay systems

Abstract: This paper is concerned with the problem of how to adjust the pollution loads such that the water quality indicators come to the desired levels as quickly as possible, and the adjusting cost of the pollution loads is minimized when the water quality indicators exceed their standards levels. A model of the river system pollution problem is established as an uncertain interconnected time-delay system, and the optimal guaranteed pollution control problem is formulated. An LMI approach is presented to the design of the optimal guaranteed cost decentralized controller. Finally, the pollution control for a river system is simulated to demonstrate the effectiveness of the proposed results.

Addresses: Zhejiang Normal Univ, Dept Environm Sci, Jinhua, 321004 Peoples R China.

Reprint Address: Yang, XH, Zhejiang Normal Univ, Dept Environm Sci, Jinhua, 321004 Peoples R China.

Cited Reference Count: 9

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 5

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 12 of 101

Author(s): Zhang, CJ; Zhang, HR; Wang, XD; Wang, JS

Title: A multi-threshold approach to segment man-made targets from infrared image by discrete stationary wavelet transform

Source: WCICA 2006: SIXTH WORLD CONGRESS ON INTELLIGENT CONTROL AND AUTOMATION, VOLS 1-12, CONFERENCE PROCEEDINGS 9876-9880, 2006

Language: English

Document Type: Article

Conference Title: 6th World Congress on Intelligent Control and Automation

Conference Date: JUN 21-23, 2006

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: Dalian Univ Technol, Northeastern Univ, Dalian Maritime Univ, Shanghai Baosight Software Co Ltd, IEEE Robot & Automat Soc, Natl Nat Sci Fdn China, Chinese Assoc Automat, IEEE Control Syst Soc, Beijing Chapter, Minist Educ, China, Grandar Robot Co Ltd, Yokogawa Elect Corp, KC Wong Educ Fdn, Siemens Lte

Author Keywords: discrete stationary wavelet transform; segmentation; bezier histogram; curvature; multi-threshold

Abstract: In order to reduce the noise in the infrared image, gray-level histogram was smoothed by Bezier curve and Bezier histogram was obtained. One dimension stationary wavelet transform was implemented to the curvature curve of Bezier histogram. Position of peak values to curvature curve in wavelet domain were adjusted from "fine-to-coarse" at all scales. The gray level values, which were located in adjusted peak values at all scales, was considered as segmentation thresholds. The gray level values of valley between peaks were considered as quantity gray levels. Optimal segmentation scale was obtained by a cost criterion. The results of experiment show that a target can be segmented effectively from complex background in infrared image by new approach. The new approach is better than the segmentation methods, which were given by Hairong Qi and Jung Shiong Chang.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 9

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0331-6

Source Item Page Count: 5

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFG71

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Record 13 of 101

Author(s): Zhang, CJ; Duanmu, CJ; Wang, XD

Title: Enhancing global and local contrast for image using discrete stationary wavelet transform and simulated annealing algorithm

Editor(s): Gabrys, B; Howlett, RJ; Jain, LC

Source: KNOWLEDGE-BASED INTELLIGENT INFORMATION AND ENGINEERING SYSTEMS, PT 2, PROCEEDINGS 11-18, 2006

Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 4252

Language: English

Document Type: Article

Conference Title: 10th International Conference on Knowledge-Based and Intelligent Information and Engineering Systems

Conference Date: OCT 09-11, 2006

Conference Location: Bournemouth, ENGLAND

Abstract: After the discrete stationary wavelet transform (DSWT) combined with the generalized cross validation (GCV) for an image, the noise in the image is directly reduced in the high frequency sub-bands, which are at the high-resolution levels. Then the local contrast of the image is enhanced by combining de-noising method with in-complete Beta transform (IBT) in the high frequency sub-bands, which are at the low-resolution levels. In order to

enhance the global contrast for the image, the low frequency sub-band image is also processed by combining the IBT and the simulated annealing algorithm (SA). The IBT is used to obtain the non-linear gray transform curve. The transform parameters are determined by the SA so as to obtain the optimal non-linear gray transform parameters. In order to reduce the large computational requirements of traditional contrast enhancement algorithms, a new criterion is proposed with the gray level histogram. The contrast type for an original image is determined by employing the new criterion. The gray transform parameters space is respectively given according to different contrast types, which greatly shrinks gray transform parameters space. Finally, the quality of the enhanced image is evaluated by a new overall objective criterion. Experimental results demonstrate that the new algorithm can greatly improve the global and local contrast for an image while efficiently reducing gauss white noise (GWN) in the image. The new algorithm performs better than the histogram equalization (HE) algorithm, un-sharpened mask algorithm (USM), Tubbs's algorithm [2], Gong's algorithm [3] and Wu's algorithm [4].

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

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29-char Source Abbrev.: LECT NOTE ARTIF INTELL

Source Item Page Count: 8

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFI89

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Record 14 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR

Title: Adaptively contrast enhancement for image with genetic algorithm

Editor(s): Wenbo, X

Source: DCABES 2006 PROCEEDINGS, VOLS 1AND 2 402-404, 2006

Language: English

Document Type: Article

Conference Title: International Symposium on Distributed Computing and Applications to Business, Engineering and Science

Conference Date: OCT 12-15, 2006

Conference Location: Hangzhou, PEOPLES R CHINA

Author Keywords: contrast enhancement; in-complete Beta transform; genetic algorithm

KeyWords Plus: HISTOGRAM EQUALIZATION

Abstract: A new contrast enhancement algorithm for image is proposed with genetic algorithm (GA). In-complete Beta transform (IBT) is used to obtain non-linear gray transform curve. Transform parameters are determined by GA to obtain optimal gray transform parameters. In order to avoid the expensive time for traditional contrast enhancement algorithms, which search optimal gray transform parameters in the whole parameters space, a new criterion is proposed. Contrast type for original image is determined employing the new criterion. Parameters space is given respectively according to different contrast types, which shrinks parameters space greatly. The fitness function for GA is formed by two performance measures, namely, contrast measure and noise change measure. Then GA is used to determine the

"optimal" set of IBT with the largest fitness function value. Experiment results show that the new algorithm is able to adaptively enhance the contrast of image.

Addresses: Zhejiang Normal Univ, Coll Math Phys & Informat Engr, Jinhua, Zhejiang Prov 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Math Phys & Informat Engr, Jinhua, Zhejiang Prov 321004 Peoples R China.

Cited Reference Count: 9

Publisher Name: SHANGHAI UNIV

Publisher Address: 149 YANCHANG RD, SHANGHAI 200072, PEOPLES R CHINA

ISBN: 7-81118-023-5

Source Item Page Count: 3

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Interdisciplinary Applications; Computer Science, Theory & Methods

ISI Document Delivery No.: BFJ51

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Record 15 of 101

Author(s): Nie, HM; Duanmu, CJ; Zhao, JM

Title: Research on the implementation techniques of BEA WebLogic server clusters based on J2EE

Editor(s): Wenbo, X

Source: DCABES 2006 PROCEEDINGS, VOLS 1AND 2 1382-1385, 2006

Language: English

Document Type: Article

Conference Title: International Symposium on Distributed Computing and Applications to Business, Engineering and Science

Conference Date: OCT 12-15, 2006

Conference Location: Hangzhou, PEOPLES R CHINA

Author Keywords: J2EE; WebLogic Server; clusters; EJB; JMS

Abstract: A WebLogic server which is based on the principles of J2EE is a currently advanced platform of electronic business. This paper discusses three techniques to implement a WebLogic cluster. They are the JSP/Servlet cluster, the object cluster, and the cluster based on java message services (JMS). It also illustrates how to realize the functionalities of workload equalization, and breakdown switching in a JSP/Servlet cluster.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Peoples R China.

Reprint Address: Nie, HM, Zhejiang Normal Univ, Dept Informat Sci & Engr, Zip Code 321004, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 3

Publisher Name: SHANGHAI UNIV

Publisher Address: 149 YANCHANG RD, SHANGHAI 200072, PEOPLES R CHINA

ISBN: 7-81118-023-5

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Interdisciplinary Applications; Computer Science, Theory & Methods

ISI Document Delivery No.: BFJ51

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Record 16 of 101

Author(s): Zhang, CJ; Wang, XD

Title: Global and local contrast enhancement for image by genetic algorithm and wavelet neural network

Editor(s): King, I; Wang, J; Chan, L; Wang, DL

Source: NEURAL INFORMATION PROCESSING, PT 3, PROCEEDINGS 910-919, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 4234

Language: English

Document Type: Article

Conference Title: 13th International Conference on Neural Informational Processing

Conference Date: OCT 03-06, 2006

Conference Location: Hong Kong, PEOPLES R CHINA

Conference Sponsors: Chinese Univ Hong Kong, Asia Pacific Neural Network Assembly, K C Wong Educ Fdn

Abstract: A new contrast enhancement algorithm for image is proposed combing genetic algorithm (GA) with wavelet neural network (WNN). In-complete Beta transform (IBT) is used to obtain non-linear gray transform curve so as to enhance global contrast for an image. GA determines optimal gray transform parameters. In order to avoid the expensive time for traditional contrast enhancement algorithms, which search optimal gray transform parameters in the whole parameters space, based on gray distribution of the image, a classification criterion is proposed. Contrast type for original image is determined by the new criterion. Parameters space is given respectively according to different contrast types, which greatly shrinks parameters space. Thus searching direction of GA is guided by the new parameter space. In order to calculate IBT in the whole image, WNN is used to approximate the IBT. In order to enhance the local contrast for image, discrete stationary wavelet transform (DSWT) is used to enhance detail in an image. Having implemented DSWT to an image, detail is enhanced by a non-linear operator in three high frequency sub-bands. The coefficients in the low frequency sub-bands are set as zero. Final enhanced image is obtained by adding the global enhanced image with the local enhanced image. Experimental results show that the new algorithm is able to well enhance the global and local contrast for image.

Addresses: Zhejiang Normal Univ, Coll Math Phys & Informat Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Math Phys & Informat Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-46484-0

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 10

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BFG63

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Record 17 of 101

Author(s): Zheng, ZL; Zhao, JM; Yang, J

Title: Gabor feature based face recognition using supervised locality preserving projection

Editor(s): BlancTalon, J; Philips, W; Popescu, D; Scheunders, P

Source: ADVANCED CONCEPTS FOR INTELLIGENT VISION SYSTEMS, PROCEEDINGS 644-653, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 4179

Language: English

Document Type: Article

Conference Title: 8th International Conference on Advanced Concepts for Intelligent Vision Systems

Conference Date: SEP 18-21, 2006

Conference Location: Antwerp, BELGIUM

Conference Sponsors: Univ Antwerp, Ghent Univ, Faculty Engn Sci, Philips Res, IEEE Benelux Signal Proc Chapter, Eurasip, Barco, DSP Valley, FWO Res Comm Audiovisual Syst

KeyWords Plus: NONLINEAR DIMENSIONALITY REDUCTION; EIGENFACES; IMAGE

Abstract: This paper introduces a novel Gabor-based supervised locality preserving projection (GSLPP) method for face recognition. Locality preserving projection (LPP) is a recently proposed method for unsupervised linear dimensionality reduction. LPP seeks to preserve the local structure which is usually more significant than the global structure preserved by principal component analysis (PCA) and linear discriminant analysis (LDA). In this paper, we investigate its extension, called supervised locality preserving projection (SLPP), using class labels of data points to enhance its discriminant power in their mapping into a low dimensional space. The GSLPP method, which is robust to variations of illumination and facial expression, applies the SLPP to an augmented Gabor feature vector derived from the Gabor wavelet representation of face images. We performed comparative experiments of various face recognition schemes, including the proposed GSLPP method, principal component analysis (PCA) method, linear discriminant analysis (LDA) method, locality preserving projection method, the combination of Gabor and PCA method (GPCA) and the combination of Gabor and LDA method (GLDA). Experimental results on AR database and CMU PIE database show superior of the novel GSLPP method.

Addresses: Zhejiang Normal Univ, Inst Informat Sci & Engn, Zhejiang, Peoples R China.

Shanghai Jiao Tong Univ, Inst Image Proc & Pattern Recognit, Shanghai, 200030 Peoples R China.

Reprint Address: Zheng, ZL, Zhejiang Normal Univ, Inst Informat Sci & Engn, Zhejiang, Peoples R China.

Cited Reference Count: 37

Publisher Name: SPRINGER-VERLAG BERLIN

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ISSN: 0302-9743

ISBN: 3-540-44630-3

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 10

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BFE67

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Record 18 of 101

Author(s): Zhao, JM; Zhu, XZ; Xu, HY; Zhuang, XP

Title: A new communication mechanism based on virtual agent for mobile agent

Editor(s): Shen, W; Lin, ZK; Barthes, JP; Luo, JH; Deng, JM; Li, XP; Yong, JM; Hao, Q

Source: 2006 10TH INTERNATIONAL CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN, PROCEEDINGS, VOLS 1 AND 2 585-589, 2006

Language: English

Document Type: Article

Conference Title: 10th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 03-05, 2006

Conference Location: Nanjing, PEOPLES R CHINA

Conference Sponsors: SE Univ, IEEE Beijing Sect, Natl Nat Sci Fdn China, CIMS Comm, KC Wong Educ Fdn

Author Keywords: mobile agent; virtual agent; communication mechanism; migration

Abstract: Mobile agent technology can be used as one of the key technologies for new component-ware frameworks. Communication mechanism of mobile agent plays a very important role in mobile agent systems. Communication mechanism could satisfy some requirements, such as location-transparency, reliability and high-efficiency. This paper introduces the current various communication algorithms and mechanisms for mobile agent, and summarizes their advantages and disadvantages. Subsequently, a new communication mechanism for mobile agent with the conception of virtual agent is put forward in this paper. This communication mechanism could implement the synchronism of communication and migration to a great extent, which could greatly improve the communication efficiency and reliability of the whole net.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Zhao, JM, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Cited Reference Count: 17

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0164-X

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering

ISI Document Delivery No.: BFD79

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Record 19 of 101

Author(s): Zhu, XZ; Zhao, JM; Xu, HY; Long, R

Title: A research of collaborative CAD system based on multi-agent

Editor(s): Shen, W; Lin, ZK; Barthes, JP; Luo, JH; Deng, JM; Li, XP; Yong, JM; Hao, Q

Source: 2006 10TH INTERNATIONAL CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN, PROCEEDINGS, VOLS 1 AND 2 638-641, 2006

Language: English

Document Type: Article

Conference Title: 10th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 03-05, 2006

Conference Location: Nanjing, PEOPLES R CHINA

Conference Sponsors: SE Univ, IEEE Beijing Sect, Natl Nat Sci Fdn China, CIMS Comm, KC Wong Educ Fdn

Author Keywords: agent; CSCW; collaborative design; CAD

KeyWords Plus: SPECIAL-ISSUE; DESIGN; CSCW

Abstract: To improve the features of cooperative design of products in distributed heterogeneous cooperation, methods of building cooperation interface and integration of heterogeneous design environment are presented with Multi-Agent technology. In products development, designs at various levels, stages and different places can cooperate and communicate with each other. So it will take a shorter time to develop a new product and high-quality of the product will be improved. A system framework was put forward and a software environment supporting the remote collaborative design of product was developed and implemented to use.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Zhu, XZ, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Cited Reference Count: 10

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0164-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering

ISI Document Delivery No.: BFD79

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Record 20 of 101

Author(s): Qu, YT; Sheng, XL; Jiao, WP

Title: A multi-agent based model of workflow management

Editor(s): Shen, W; Lin, ZK; Barthes, JP; Luo, JH; Deng, JM; Li, XP; Yong, JM; Hao, Q

Source: 2006 10TH INTERNATIONAL CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN, PROCEEDINGS, VOLS 1 AND 2 642-646, 2006

Language: English

Document Type: Article

Conference Title: 10th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 03-05, 2006

Conference Location: Nanjing, PEOPLES R CHINA

Conference Sponsors: SE Univ, IEEE Beijing Sect, Natl Nat Sci Fdn China, CIMS Comm, KC Wong Educ Fdn

Author Keywords: workflow; intelligent agent; workflow management system

Abstract: The overall goal of this research is to develop a distributed, flexible and adaptable workflow management system. This paper proposes a model of workflow management based on multi-agent, which makes the workflow much more autonomous, flexible and adaptable. With the knowledge management agent modifying the knowledge base and rule base, the model-based system's dynamic extension capability is enhanced obviously. The end of the paper shows the application and implementation based on this model, and analyses and discusses it concretely.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engi, Jinhua, Peoples R China.

Reprint Address: Qu, YT, Zhejiang Normal Univ, Coll Informat Sci & Engi, Jinhua, Peoples R China.

Cited Reference Count: 11

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0164-X

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering

ISI Document Delivery No.: BFD79

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Record 21 of 101

Author(s): Xu, HY; Zhao, JM; Zhu, XZ; Li, ZY

Title: Web services based on grid technology

Editor(s): Shen, W; Lin, ZK; Barthes, JP; Luo, JH; Deng, JM; Li, XP; Yong, JM; Hao, Q

Source: 2006 10TH INTERNATIONAL CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN, PROCEEDINGS, VOLS 1 AND 2 910-913, 2006

Language: English

Document Type: Article

Conference Title: 10th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 03-05, 2006

Conference Location: Nanjing, PEOPLES R CHINA

Conference Sponsors: SE Univ, IEEE Beijing Sect, Natl Nat Sci Fdn China, CIMS Comm, KC Wong Educ Fdn

Author Keywords: web service; Grid; GRWS

Abstract: Creating an integrated virtual computing environment based on grid will provide a technical platform and supporting environment for realizing a seamless access and full share of entire resources on the Internet, This text has introduced a kind of web service (Grid-based Web service, GRWS) based on grid mainly. This paper discusses the concept, architecture, working mechanism and security of the Grid based on Web Services, and finally gives a brief summary.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Li, ZY, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Cited Reference Count: 8

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0164-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering

ISI Document Delivery No.: BFD79

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Record 22 of 101

Author(s): Tan, WA; Shen, WM; Zhao, JM; Hao, Q

Title: An evolutionary approach to enterprise process collaborative modeling using intelligent software agents

Editor(s): Shen, W; Lin, ZK; Barthes, JP; Luo, JH; Deng, JM; Li, XP; Yong, JM; Hao, Q

Source: 2006 10TH INTERNATIONAL CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN, PROCEEDINGS, VOLS 1 AND 2 1268-1273, 2006

Language: English

Document Type: Article

Conference Title: 10th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 03-05, 2006

Conference Location: Nanjing, PEOPLES R CHINA

Conference Sponsors: SE Univ, IEEE Beijing Sect, Natl Nat Sci Fdn China, CIMS Comm, KC Wong Educ Fdn

Author Keywords: evolutionary approach; collaborative modeling; intelligent software agent

Abstract: This paper presents an evolutionary approach supporting enterprise process modeling using intelligent agent technology. In this paper, an evolutionary enterprise process modeling methodology was presented from the concepts of enterprise process evolution, zero-time enterprise modeling technology to complex enterprise modeling. Based on, an

autonomous agent development environment, an agent-based enterprise collaborative modeling environment was implemented in which integrated some of software resource agents wrapped from the main function modules of EPMS (enterprise process modeling system).

Addresses: Zhejiang Normal Univ, Inst Software Engn, Zhejiang, Peoples R China.

Reprint Address: Tan, WA, Zhejiang Normal Univ, Inst Software Engn, Zhejiang, Peoples R China.

Cited Reference Count: 16

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0164-X

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering

ISI Document Delivery No.: BFD79

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Record 23 of 101

Author(s): Tan, WA; Li, S; Shen, WM

Title: A dynamic evaluation methodology for enterprise business process

Editor(s): Shen, W; Lin, ZK; Barthes, JP; Luo, JH; Deng, JM; Li, XP; Yong, JM; Hao, Q

Source: 2006 10TH INTERNATIONAL CONFERENCE ON COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN, PROCEEDINGS, VOLS 1 AND 2 1274-1279, 2006

Language: English

Document Type: Article

Conference Title: 10th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 03-05, 2006

Conference Location: Nanjing, PEOPLES R CHINA

Conference Sponsors: SE Univ, IEEE Beijing Sect, Natl Nat Sci Fdn China, CIMS Comm, KC Wong Educ Fdn

Author Keywords: CSCW; business process intelligence; process flow analysis

Abstract: An outstanding enterprise system should provide the analysis functions for various business process flows to assist enterprise decision-makers to understand their enterprise and make reasonable decisions. Based on Activity-Based Management technology (ABM), this paper presents an evolutionary approach such as intelligent business process analysis concepts and metric measurement models for six kinds of process flows within manufacturing enterprises: activity flow, product flow, resource flow, cost flow, cash flow, and profit flow. The proposed process flow analysis technology has been developed as a dynamic enterprise process analysis tool within a process simulation and optimization environment to validate the proposed evolutionary approach.

Addresses: Zhejiang Normal Univ, Inst Software Engn, Zhejiang, Peoples R China.

Reprint Address: Tan, WA, Zhejiang Normal Univ, Inst Software Engn, Zhejiang, Peoples R China.

Cited Reference Count: 9

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0164-X

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering

Record 24 of 101

Author(s): Jin, YX

Title: Augmenting control with scheduling for embedded computing control system

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 152-156, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: embedded computing control systems; temporal uncertainty; codesign of control and scheduling; schedulability margin; feedback scheduling

Abstract: For an embedded computing control system, if we know the total resource capacities and have a priori knowledge about the tasks it will handle, we would know how to schedule and allocate resources so that QoS guarantees will be provided. If an accurate system model is available, QoS assurance can also be achieved. The challenges are that the embedded computing control systems are becoming more and more complex. Not only is it difficult to find accurate system models, but also the dynamics in and around the systems require constant modeling changes. To solve this problem, we investigated combining control with feedback scheduling. This paper discusses the integration issues of augment control with scheduling for embedded computing control system.

Addresses: Zhejiang Normal Univ, Inst Comp Sci Studies, Jinhua, 321004 Peoples R China.

Reprint Address: Jin, YX, Zhejiang Normal Univ, Inst Comp Sci Studies, Jinhua, 321004 Peoples R China.

Cited Reference Count: 16

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 25 of 101

Author(s): Xu, HY; Zhu, XZ; Zhao, JM; Guo, HF

Title: The panorama generation technique in virtual scene

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 164-167, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: virtual reality; panorama; smoothed filter; three-dimension playback

Abstract: This article introduces virtual reality, key technology of virtual reality and virtual reality drawing based on images, and mainly introduces the technology and method of panorama generating, processing and displaying in virtual reality. The technology of virtual reality drawing based on images, which is effective and is no need of special hardware, can be widely applied to various kinds of low-end computers. This opens up a way of implementing virtual reality system with low-end computer or microcomputer.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Peoples R China.

Reprint Address: Xu, HY, Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 7

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 26 of 101

Author(s): Zhu, XZ; Zhao, JM; Xu, HY; Zhuang, XP

Title: A design of selecting and arranging lesson systems based on multi-agent

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 305-309, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: multi-agent technology; selecting lesson; arranging lesson; teaching administration

KeyWords Plus: CONCEPTUAL DESIGN

Abstract: Selecting and arranging lesson systems are two important parts of teaching administration in colleges and universities, but there are several disadvantages and deficiencies in traditional systems. After describing the work flows

of selecting lesson and arranging lesson, this paper presents this two systems' designs by multi-agent technology and ideology, and puts forward the framed structure designs of selecting and arranging lesson systems based on multi-agent. This design greatly improves the efficiency, intelligence and high-grade integration of modern teaching administration, and advances the informatization constructing of modern colleges and universities.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Prov Peoples R China.

Reprint Address: Zhu, XZ, Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Prov Peoples R China.

Cited Reference Count: 9

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 27 of 101

Author(s): Zhu, XZ; Xu, HY; Zhao, JM; Guo, HF

Title: The analysis of some objects and the realization of going over examination papers automatically of EXCEL document

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 405-408, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: Office object; EXCEL document; computer operation examination; go over examination papers automatically

Abstract: With VBA and Office object model, this article analyses some picture class objects of the EXCEL document and the acquisition method of these object attributes, and applies the attribute information to the system of going over examination papers automatically and grading of the EXCEL document. This method of going over examination papers and grading can be widely used in the system design of computer operation practice and computer operation examination of information technology course.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Prov Peoples R China.

Reprint Address: Zhu, XZ, Zhejiang Normal Univ, Dept Informat Sci & Engr, Jinhua, Zhejiang Prov Peoples R China.

Cited Reference Count: 8

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 28 of 101

Author(s): Ma, BF; Yang, F; Wang, QX; Yao, DD

Title: Information fusion of biometrics based-on fingerprint, hand-geometry and palmprint

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 484-490, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: fingerprint verification; palmprint verification; hand-geometry verification.multi-biometrics; information fusion Information entropy

KeyWords Plus: SYSTEMS

Abstract: While Unimodal biometric systems based on single source of biometric information are usually affected by problems such as noisy sensor data, no-universality and susceptibility to circumvention, so using multimodal biometric systems that consolidate evidence form multiple biometric sources can remove some of these problems. In this paper, fingerprint, palmprint and hand-geometry are combined for person identity verification. Most of all, theirs' features can be acquired form the same image. Four levels of information fusion in a multimodal biometric system are addressed and some fusion methods are discussed furthermore, information entropy is introduced and furtherdevelops are given.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Technol, Jin Hua, Zhejiang Peoples R China.

Reprint Address: Ma, BF, Zhejiang Normal Univ, Coll Informat Sci & Technol, Jin Hua, Zhejiang Peoples R China.

Cited Reference Count: 20

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 7

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 29 of 101

Author(s): Zhao, JM; Zhu, XZ; Xu, HY; Guo, HF

Title: The realization of the digital image watermarking algorithm based on Iterated Function System

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 497-501, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: digital watermarking; fractal; Iterated Function System (IFS)

Abstract: This article introduces fractal and Iterated Function System, and proposes a digital image watermarking algorithm of resisting geometrical deformation based on Iterated Function System. The experiment proves that this algorithm has good robustness to geometrical deformation.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Reprint Address: Zhao, JM, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 6

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 30 of 101

Author(s): Xu, HY; Zhu, XZ; Zhao, JM; Xu, MJ

Title: The application of RF-Card and fingerprint recognition technology on digital campus

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 515-520, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: digital campus; RF Card; fingerprint recognition; Campus Card System

Abstract: A RF-Card Reader with high capability is designed by using PSAM Card to manage cryptogram to improve security of the system and a new algorithms based on information of lines' direction is presented in this paper. As

conclusion, this paper designed a Campus Card System based on campus network with RF card as medium and fingerprint recognition technology as the way of person's identification.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Reprint Address: Xu, HY, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 6

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 31 of 101

Author(s): Zhao, JM; Zhu, XZ; Yang, L

Title: License plate location and segmenting in complex images

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 521-523, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: complex background; many license plates; five- scale gray image; inherent different colors of the license Plate; Location and Segmenting

Abstract: The idea employs information of the color image to construct a five- scale gray image and gets the possible areas of vehicle license plate, then base on the difference between the background color and characters color of the plates, finishes the final location and segmenting of the vehicle license plate.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Reprint Address: Zhao, JM, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 7

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 3

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 32 of 101

Author(s): Zhao, JM; Zhu, XZ; Ye, DH

Title: Circle-layered model of agent organization

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 524-527, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: agent organization structure; circle-layered model; group; semi-group; ring

Abstract: The agent organization is a kind of form of problem solving for multi-agent systems. A proper organization structure contributes to the cooperation of the agents (or sub-agents) and to the management of the cooperating mission and its members. Therefore, more and more attention has been paid to the research on the structure of the agent organization. This paper proposes a circle-layered model of agent organization and abstracts its behavior feature which appears in the problem-solving process based on MAS with algebra theory to conclude the structural properties of agent organization with algebra.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Reprint Address: Zhao, JM, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 14

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83  
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Record 33 of 101

Author(s): Wu, JB; Wang, XH; Chen, ZY; Ye, RH; Wu, JZ

Title: Study on web services container architecture

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 620-624, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: architecture; life cycle; state; Web Services; Web Services Container

Abstract: Web services technologies promote to transform traditional Web Application Server mode into Web Services Platform mode. However, as the demand on highly reliable and highly available Web services increases a first-class environment for deploying, running, and managing Web services, called Web Services Container (WSC), is needed. Based on the formal representation and current state-of-the-art of WSC, the paper puts forward a WSC architecture, where such problems as security, reliability and the management of stateful Web Services are addressed. Using its prototype, it demonstrates that some aspects such as performance are better than other corresponding systems.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Prov Peoples R China.

Reprint Address: Wu, JB, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Prov Peoples R China.

Cited Reference Count: 11

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 34 of 101

Author(s): Wu, HG; Zhong, FR

Title: The relation between Web Services orchestration and choreography

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 716-718, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: Web Services; relation; orchestration; choreography

Abstract: Web Services are rapidly emerging as the most practical approach for integrating available sources within and across organizations. Both orchestration and choreography are Web Services approaches dealing with business processes design and specification. In this paper, we have a closer look to orchestration and choreography and discuss the relations of them. they are not only distinct approaches fro system representation and management but also a synergic approach.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Technol, Jinhua, Zhejiang Prov 321004 Peoples R China.

Reprint Address: Wu, HG, Zhejiang Normal Univ, Coll Informat Sci & Technol, Jinhua, Zhejiang Prov 321004 Peoples R China.

Cited Reference Count: 5

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 3

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 35 of 101

Author(s): Zhu, XZ; Zhao, JM; Xu, HY

Title: A new method of license plate characters recognition by feature extraction and BP neural networks

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 796-801, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: license plate recognition; character recognition; BP neural network; character extracting

Abstract: In this paper, the feature of rough grid is used to enhance our character recognition system, These features is applied to improved unitary character originality feature to BP neural network classifier to recognize the license plate character. To improve the recognition rate of the character recognition system of vehicle license plate. By analyzing the result of test, we also put forward a series of new measures including designing a careful neural network classifier to distill detail feature of a character which is analogical and promiscuous, found on Chinese characters stroke conglutination and character excursion phenomena, based on standard samples. For some baroque strokes compactness province characters, we also properly add representative stroke conglutination samples and representative excursion samples to Chinese character's network training samples. The study result shows that the new method can greatly improve the steady performance of character recognition system.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Zhejiang Prov 321004 Peoples R China.

Reprint Address: Zhu, XZ, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Zhejiang Prov 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications  
ISI Document Delivery No.: BFD83

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Record 36 of 101

Author(s): Xu, HY; Zhu, XZ; Zhao, JM; Guo, HF

Title: Design and implementation of the formal description system of marking information

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 879-882, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: marking information; formal description; descriptive statement

Abstract: This article expounds the design and implementation of a formal description system of marking information. Various complicated marking requirement can be fully described and implemented through this description system. At the same time, the formal description of marking information has implemented the separation of marking program code and test questions, which has laid a good foundation for expansion of the system.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Prov Peoples R China.

Reprint Address: Xu, HY, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang Prov Peoples R China.

Cited Reference Count: 10

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

ISBN: 7-5615-2582-6

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 37 of 101

Author(s): Jiang, H; Liang, JZ

Title: System analysis and design of an online shop system based on PowerDesigner

Editor(s): Li, M

Source: ICCSE'2006: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON COMPUTER SCIENCE & EDUCATION - ADVANCED COMPUTER TECHNOLOGY, NEW EDUCATION 902-906, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Computer Science and Education (ICCSE 2006)

Conference Date: JUL 27-29, 2006

Conference Location: Xiamen, PEOPLES R CHINA

Conference Sponsors: China Natl Res Council Comp Educ Coll & Univ, IEEE Control Syst Chapter, Singapore, Univ Virginia, Univ Melbourne

Conference Host: Xiamen Univ

Author Keywords: MIS; CASE; PowerDesigner; UML modeling; data modeling

Abstract: For different modeling methods have to be implemented on different CASE (Computer Aided Software Engineering) tools presently, this paper introduces a new method of incorporating the object-oriented modeling based on UML and data modeling into PowerDesigner in an organized and coherent way. In this method, the analysis and design of the whole system can be implemented more clearly and efficiently. When. applied. to the practice of an online shop system development, the quality and efficiency of this method is demonstrated to obtain obvious enhancement.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Technol, Jinhua, Zhejiang Prov Peoples R China.

Reprint Address: Jiang, H, Zhejiang Normal Univ, Coll Informat Sci & Technol, Jinhua, Zhejiang Prov Peoples R China.

Cited Reference Count: 7

Publisher Name: XIAMEN UNIV PRESS

Publisher Address: XIAMEN, FUJIAN, 361005, PEOPLES R CHINA

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Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications; Computer Science, Software Engineering; Telecommunications

ISI Document Delivery No.: BFD83

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Record 38 of 101

Author(s): Lv, GY; Cai, X; Jin, YY

Title: Improvement of grey relation analysis and its application on power quality disturbances identification

Editor(s): Wang, L; Jiao, L; Shi, G; Li, X; Liu, J

Source: FUZZY SYSTEMS AND KNOWLEDGE DISCOVERY, PROCEEDINGS 1159-1168, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 4223

Language: English

Document Type: Article

Conference Title: 3rd International Conference on Fuzzy Systems and Knowledge Discovery

Conference Date: SEP 24-28, 2006

Conference Location: Xian, PEOPLES R CHINA

Conference Sponsors: Xidian Univ, Natl Nat Sci Fdn China, Int Neural Network Soc, Asia-Pacific Neural Network Assembly, IEEE Circuits & Syst Soc, IEEE Computat Intelligence Soc, IEEE Computat Intelligence Soc, Singapore Chapter, Chinese Assoc Artificial Intelligence Tech

Abstract: An improved grey relation analysis method was brought forward, based on concept of group relation index and relation index cube. The definition and calculating process was given out in this paper. In contrast to traditional grey relation analysis, the improved grey relation analysis had two advantages over traditional grey relation analysis: A) Greatly strengthened the veracity and reliability of relation analysis; B) Having a much broader range of its application. The improved method was applied to an application of power quality (PQ) disturbance identification in power system.

The test result of the application has shows that the improved method has a much better effect than traditional grey relation analysis. The improved method can also be applied to many other applications in a wide range.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Nanjing Micro One Elect Inc, Nanjing, 210005 Peoples R China.

Reprint Address: Lv, GY, Zhejiang Normal Univ, Dept Informat Sci & Engn, 299 Beishan Rd, Jinhua, 321004 Peoples R China.

Cited Reference Count: 11

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-45916-2

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 10

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BFD14

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Record 39 of 101

Author(s): Chen, TY; Zhang, JP

Title: An agent-based adaptive learning system (ABALS)

Editor(s): Pan, JS; Shi, P; Zhao, Y

Source: ICICIC 2006: FIRST INTERNATIONAL CONFERENCE ON INNOVATIVE COMPUTING, INFORMATION AND CONTROL, VOL 3, PROCEEDINGS 378-381, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Innovative Computing, Information and Control (ICICIC 2006)

Conference Date: AUG 30-SEP 01, 2006

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE, ICIC Int, Natl Nat Sci Fdn China, Beijing Jiaotong Unvi, Kaohsiung Univ Appl Sci

Abstract: Collaboration and adaptation have been becoming more and more important in modem distance education. Building an adaptive learning system with strong collaboration and interaction has becoming the future development direction of modern distance education. In this paper, we proposed an adaptive learning system (ABALS) using the agent technology. In ABALS, we built three agents: student agent, tutor agent and information agent. Moreover, we discussed the working process of ABALS. Later, we talked about the collaboration in ABALS (Limit to the paper length, we didn't discuss it in detail). In the end, we talked about some future works corresponding to ABALS.

Addresses: Zhejiang Normal Univ, Inst Informat Technol Educ, Zhejiang, 321004 Peoples R China.

Reprint Address: Chen, TY, Zhejiang Normal Univ, Inst Informat Technol Educ, Zhejiang, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE COMPUTER SOC

Publisher Address: 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA

ISBN: 0-7695-2616-0

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Software Engineering; Computer Science, Theory & Methods; Engineering, Electrical & Electronic

ISI Document Delivery No.: BFB65

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Record 40 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR; Lv, GY; Wei, H

Title: A reducing multi-noise contrast enhancement algorithm for infrared image

Editor(s): Pan, JS; Shi, P; Zhao, Y

Source: ICICIC 2006: FIRST INTERNATIONAL CONFERENCE ON INNOVATIVE COMPUTING, INFORMATION AND CONTROL, VOL 1, PROCEEDINGS 632-635, 2006

Language: English

Document Type: Article

Conference Title: 1st International Conference on Innovative Computing, Information and Control (ICICIC 2006)

Conference Date: AUG 30-SEP 01, 2006

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE, ICIC Int, Natl Nat Sci Fdn China, Beijing Jiaotong Univ, Kaohsiung Univ Appl Sci

Abstract: A kind of infrared image contrast enhancement algorithm based on discrete stationary wavelet transform (DSWT) and non-linear gain operator is proposed Having implemented DSWT to an infrared image, de-noising is done by the method proposed in the high frequency sub-bands which are in the better resolution levels and enhancement is implemented by combining de-noising method with in-complete Beta transform (IBT) in the high frequency sub-bands which are the worse resolution levels. According to experimental results, the new algorithm can reduce effectively the correlative noise ( $1/f$  noise), additive gauss white noise (AGWN) and multiplied noise (AM) in the infrared image while it also enhances the contrast of infrared image well. In visual quality, the algorithm is better than the traditional unshaped mask method (USM, histogram equalization method (HIS) and other two methods in Ref. [3] and Ref. [5].

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Peoples R China.

Cited Reference Count: 11

Publisher Name: IEEE COMPUTER SOC

Publisher Address: 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA

ISBN: 0-7695-2616-0

Source Item Page Count: 4

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Theory & Methods; Imaging Science & Photographic Technology

ISI Document Delivery No.: BFB63

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Record 41 of 101

Author(s): Wu, HG; Zhong, FR; Duan, ZJ

Title: A pi-calculus based model for web services composition

Editor(s): Callaghan, V; Hu, B; Lin, Z; Zhang, H

Source: 2006 1ST INTERNATIONAL SYMPOSIUM ON PERVASIVE COMPUTING AND APPLICATIONS, PROCEEDINGS 613-618, 2006

Language: English

Document Type: Article

Conference Title: 1st International Symposium on Pervasive Computing and Applications

Conference Date: AUG 03-05, 2006

Conference Location: Urumchi, PEOPLES R CHINA

Conference Sponsors: IEEE Beijing Sect, BCS, UCE, GUT, SDUW, XIFE

Author Keywords: web services; extended pi-calculus; composition

Abstract: Composition of web services into distributed applications recently becomes a hot topic in computer science. In this paper a  $\nu$ -calculus based model for web service composition is presented in which the event process, signal notification and construct of transaction are added. The operational semantics of the model is interpreted. Further the expressiveness of the model is discussed, and atypical case study is explored. Finally, some comments are made.

Addresses: Zhejiang Normal Univ, Dept Comp Sci, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Wu, HG, Zhejiang Normal Univ, Dept Comp Sci, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 18

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0325-1

Source Item Page Count: 6

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BFB62

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Record 42 of 101

Author(s): Tan, WA

Title: Simulation-based process model learning approach for dynamic enterprise process optimization

Editor(s): Huang, DS; Li, K; Irwin, GW

Source: COMPUTATIONAL INTELLIGENCE, PT 2, PROCEEDINGS 438-449, 2006

Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 4114

Language: English

Document Type: Article

Conference Title: International Conference on Intelligent Computing (ICIC)

Conference Date: AUG 16-19, 2006

Conference Location: Kunming, PEOPLES R CHINA

Conference Sponsors: IEEE Computat Intelligence Soc, Int Neural Network Soc, Natl Sci Fdn China

KeyWords Plus: ALGORITHM

Abstract: Dynamic enterprises process optimization (DEPO) is a multiparametric and multi-objective system optimization problem. This paper proposes a simulation-based process model learning approach for dynamic enterprise process optimization. Some concepts such as Evolving-region, Evolving-Potential, Degenerate-region and Degenerate-limit are proposed to extend the concept of Tabu area. Tabu area extension and connection is successfully presented for realizing rapidly the domain reduction of a candidate set and speeding up global optimization. A distributed parallel optimization environment has been implemented using intelligent agents to validate the proposed approach.

Addresses: Zhejiang Normal Univ, Sch Math & Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Tan, WA, Zhejiang Normal Univ, Sch Math & Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 11

Publisher Name: SPRINGER-VERLAG BERLIN

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ISSN: 0302-9743

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29-char Source Abbrev.: LECT NOTE ARTIF INTELL

Source Item Page Count: 12

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEY13

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Record 43 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR

Title: Enhancing contrast for image using discrete stationary wavelet transform and non-linear gain operator

Editor(s): Huang, DS; Li, K; Irwin, GW

Source: COMPUTATIONAL INTELLIGENCE, PT 2, PROCEEDINGS 1125-1135, 2006

Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 4114

Language: English

Document Type: Article

Conference Title: International Conference on Intelligent Computing (ICIC)

Conference Date: AUG 16-19, 2006

Conference Location: Kunming, PEOPLES R CHINA

Conference Sponsors: IEEE Computat Intelligence Soc, Int Neural Network Soc, Natl Sci Fdn China

KeyWords Plus: HISTOGRAM EQUALIZATION

Abstract: Having implemented discrete stationary wavelet transform (DSWT) to an image, combining generalized cross validation (GCV), noise is reduced directly in the high frequency sub-bands which are at the better resolution levels and local contrast is enhanced by combining de-noising method with non-linear gain operator (NGO) in the high frequency sub-bands which are at the worse resolution levels. In order to enhance the global contrast for the image, the low frequency sub-band image is also enhanced employing in-complete Beta transform (IBT) and simulated annealing algorithm (SA). IBT is used to obtain non-linear gray transform curve. Transform parameters are determined by SA so as to obtain optimal non-linear gray transform parameters. In order to avoid the expensive time for traditional contrast enhancement algorithms, which search optimal gray transform parameters in the whole gray transform parameters space, a new criterion is proposed with gray level histogram. Contrast type for original image is determined employing the new criterion. Gray transform parameters space is given respectively according to different contrast types, which shrinks gray transform parameters space greatly. Finally, the quality of enhanced image is evaluated by a total cost criterion. Experimental results show that the new algorithm can improve greatly the global and local contrast for an image while reducing efficiently gauss white noise (GWN) in the image. The new algorithm is more excellent in performance than histogram equalization, un-sharpened mask algorithm, WYQ algorithm and GWP algorithm.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

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Source Item Page Count: 11

Subject Category: Computer Science, Artificial Intelligence

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Record 44 of 101

Author(s): Zhu, XB

Title: A novel motion blending approach based on fuzzy clustering

Editor(s): Yang, Q; Webb, G

Source: PRICAI 2006: TRENDS IN ARTIFICIAL INTELLIGENCE, PROCEEDINGS 613-622, 2006

Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 4099

Language: English

Document Type: Article

Conference Title: 9th Pacific Rim International Conference on Artificial Intelligence (PRICAI 2006)

Conference Date: AUG 07-11, 2006

Conference Location: Guilin, PEOPLES R CHINA

KeyWords Plus: INTERPOLATION

Abstract: Motion blending allows the generation of new motions by interpolation or transition between motion capture sequences, which is widely accepted as a standard technique in computer animation. But traditional blending approaches let the user choose manually the transition time and duration. This paper presents a new motion blending method for smoothly blending between two motion capture clips and automatically selecting the transition time and duration. To evaluate the effectiveness of the improved method, we have done extensive experiments. The experiment results show that the novel motion blending method is effective in smoothly blending between two motion sequences.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua Zhejiang, Peoples R China.

Reprint Address: Zhu, XB, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua Zhejiang, Peoples R China.

Cited Reference Count: 22

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-36667-9

29-char Source Abbrev.: LECT NOTE ARTIF INTELL

Source Item Page Count: 10

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEY22

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Record 45 of 101

Author(s): Zhu, XZ; Zhao, JM; Xu, HY

Title: A digital watermarking algorithm and implementation based on improved SVD

Editor(s): Tang, YY; Wang, SP; Lorette, G; Yeung, DS; Yan, H

Source: 18TH INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION, VOL 3, PROCEEDINGS 651-656, 2006

Book Series: INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION

Language: English

Document Type: Article

Conference Title: 18th International Conferenc on Pattern Recognition (ICPR 2006)

Conference Date: AUG 20-24, 2006

Conference Location: Hong Kong, PEOPLES R CHINA

Conference Sponsors: IAPR, CAA, Hong Kong Baptist Univ

Abstract: An improved digital watermarking algorithm based on Block-SVD is put forward, which has better robustness. It can deal with the rectangle matrices directly and can extract better-quality watermarks. It takes little time to embed and extract the watermark in large images and this method can avoid some disadvantages such as the distortion caused by the computing error when extracting the watermark in the diagonal direction. Robustness testing results and time comparing analysis between SVD and Block-SVD are presented in this paper. Compared with traditional Cox method, this algorithm has better robustness, faster speed and is more practical.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Zhu, XZ, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE COMPUTER SOC

Publisher Address: 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA

ISSN: 1051-4651

ISBN: 0-7695-2521-0

29-char Source Abbrev.: INT C PATT RECOG

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BFB29

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Record 46 of 101

Author(s): Fang, P; He, M; Xie, GQ; Ying, YF; Luo, MF; Xin, Q

Title: Preparation and characterization of nano-particulate CexGd1-xOy solid solutions

Source: ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 231: 334-COLL MAR 26 2006

Language: English

Document Type: Meeting Abstract

Conference Title: 231st National Meeting of the American-Chemical-Society

Conference Date: MAR 26-30, 2006

Conference Location: Atlanta, GA

Conference Sponsors: Amer Chem Soc

Addresses: Zhejiang Normal Univ, Inst Phys Chem, Zhejiang Key Lab React Chem Solid Surfaces, Jinhua, 321004 Peoples R China.

Dalian Inst Chem Phys, State Key Lab Catalysis, Dalian, Peoples R China.

Cited Reference Count: 0

Publisher Name: AMER CHEMICAL SOC

Publisher Address: 1155 16TH ST, NW, WASHINGTON, DC 20036 USA

ISSN: 0065-7727

29-char Source Abbrev.: ABSTR PAP AMER CHEM SOC

Source Item Page Count: 1

Subject Category: Chemistry, Multidisciplinary

ISI Document Delivery No.: 050YE

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Record 47 of 101

Author(s): Ying, YF; Luo, MF; Wang, YJ; Ma, JM; Fang, P; He, M; Xin, Q

Title: Study on phases and properties of Pr-ZrO<sub>2</sub> nanometer material by sol-gel method

Source: ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 231: 339-COLL MAR 26 2006

Language: English

Document Type: Meeting Abstract

Conference Title: 231st National Meeting of the American-Chemical-Society

Conference Date: MAR 26-30, 2006

Conference Location: Atlanta, GA

Conference Sponsors: Amer Chem Soc

Addresses: Zhejiang Normal Univ, Inst Phys Chem, Zhejiang Key Lab React Chem Solid Surfaces, Jinhua, 321004 Peoples R China.

Dalian Inst Chem Phys, State Key Lab Catalysis, Dalian, Peoples R China.

Cited Reference Count: 0

Publisher Name: AMER CHEMICAL SOC

Publisher Address: 1155 16TH ST, NW, WASHINGTON, DC 20036 USA

ISSN: 0065-7727

29-char Source Abbrev.: ABSTR PAP AMER CHEM SOC

Source Item Page Count: 1

Subject Category: Chemistry, Multidisciplinary

ISI Document Delivery No.: 050YE

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Record 48 of 101

Author(s): Liang, JZ; Wu, XH

Title: Worm harm prediction based on segment procedure neural networks

Editor(s): Wang, G; Peters, JF; Skowron, YY; Yao, YY

Source: ROUGH SETS AND KNOWLEDGE TECHNOLOGY, PROCEEDINGS 383-388, 2006

Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 4062

Language: English

Document Type: Article

Conference Title: 1st International Conference on Rough Sets and Knowledge Technology (RSKT 2006)

Conference Date: JUL 24-26, 2006

Conference Location: Chongqing, PEOPLES R CHINA

Conference Sponsors: Int Rough Set Soc, Rough Set & Soft Computat Soc, Chinese Assoc Artificial Intelligence, Natl Nat Sci Fdn China, Chongqing Univ Posts & Telecommun, Chongqing Inst Technol, Chongqing Jiaotong Univ, Chongqing Educ Commiss, Chongqing Sci & Technol Commiss, Chongqing Informat Ind Bur, Chongqing Assoc Sci & Tecjmp;

Author Keywords: neural networks; topological structure; procedure neural networks; segment; algorithm; learning; prediction

Abstract: This paper deals with the application of segment procedure neural networks to predict harm status of

horsetail-pine worm. A novel procedure neural networks is proposed to solve those problems which are related to certain distinct segments of procedure. It is indicated that this model is a generalized form of the known procedure neural networks, and it owns all properties of the known model. This paper also presents learning algorithms for the segment procedure neural networks. Horsetail-pine worm forecast is a hard work for forest experts, but it is a typical segment procedure problem. In this paper a segment procedure neural networks is applied to deal with this issue, and some simulation experiment results are presented.

Addresses: Zhejiang Normal Univ, Dept Comp Sci, Jinhua, 321004 Peoples R China.

Reprint Address: Liang, JZ, Zhejiang Normal Univ, Dept Comp Sci, Jinhua, 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-36297-5

29-char Source Abbrev.: LECT NOTE ARTIF INTELL

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEV60

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Record 49 of 101

Author(s): Feng, LH; Hu, FS; Wan, L

Title: On PCA error of subject classification

Editor(s): Ruan, D; DHondt, P; Fantoni, PF; DeCock, M; Nachtegael, M; Kerre, EE

Source: APPLIED ARTIFICIAL INTELLIGENCE 162-168, 2006

Language: English

Document Type: Article

Conference Title: 7th International Conference on Fuzzy Logic and Intelligent Technologies in Nuclear Science

Conference Date: AUG 29-31, 2006

Conference Location: Genova, ITALY

KeyWords Plus: PRINCIPAL COMPONENT ANALYSIS

Abstract: Since subjective chose could cause the loss of valuable original information, statistics method is employed to deal with multi-variable problem. After normalization, original variables are reduced to several independent synthetic variables on which evaluation is based. Principal Component Analysis provides a good example for this. But the real data calculation shows that the result of Principal Component Analysis is not always complied with the real situation. Sometimes, it can be totally messed up. Some problems exist regarding to this classification. They are as follows: (1) The discrimination ability of PCA is limited, (2) For those samples with big variables, PCA losses its ability of discrimination, (3) When the value of variable increases, on the contrary, class level decreases, (4) The same samples, while different classifications, (5) Variables change a lot, while classification keeps unchanged, (6) While variables change arbitrarily, there are only two different classifications, (7) The position change of variables causes the change of classification, (8) The change of a variable causes the change of the classification. These problems are caused by the nature of Principal Component Analysis itself.

Addresses: Zhejiang Normal Univ, Dept Geog, Jinhua, 321004 Peoples R China.

Reprint Address: Feng, LH, Zhejiang Normal Univ, Dept Geog, Jinhua, 321004 Peoples R China.

Cited Reference Count: 12

Publisher Name: WORLD SCIENTIFIC PUBL CO PTE LTD

Publisher Address: PO BOX 128 FARRER RD, SINGAPORE 9128, SINGAPORE

ISBN: 981-256-690-2

Source Item Page Count: 7

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Interdisciplinary Applications

ISI Document Delivery No.: BEU34

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Record 50 of 101

Author(s): Feng, LH; Lu, J

Title: Application of artificial neural networks in the flood forecast

Editor(s): Ruan, D; DHondt, P; Fantoni, PF; DeCock, M; Nachtegael, M; Kerre, EE

Source: APPLIED ARTIFICIAL INTELLIGENCE 659-664, 2006

Language: English

Document Type: Article

Conference Title: 7th International Conference on Fuzzy Logic and Intelligent Technologies in Nuclear Science

Conference Date: AUG 29-31, 2006

Conference Location: Genova, ITALY

Abstract: Adopt the "memory" and "simulation" of the artificial neural networks to do the flood forecast because the advantages of the neural networks can be used to simulate and record the relationship of the input and the output on the complex "function" through the training and the learning based on the historical data without any mathematics models. For this research, the authors proposed a new flood forecast system with the related applications based on the neural networks methods. It was shown the better performance and the efficiency results. It will be expected that this system application will become more sensitive to increase a better performance for the flood forecast.

Addresses: Zhejiang Normal Univ, Dept Geog, Jinhua, 321004 Peoples R China.

Reprint Address: Feng, LH, Zhejiang Normal Univ, Dept Geog, Jinhua, 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: WORLD SCIENTIFIC PUBL CO PTE LTD

Publisher Address: PO BOX 128 FARRER RD, SINGAPORE 9128, SINGAPORE

ISBN: 981-256-690-2

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Interdisciplinary Applications

ISI Document Delivery No.: BEU34

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Record 51 of 101

Author(s): Zhang, XC; Feng, LH

Title: Practical research of the flood risk based on information diffusion theory

Editor(s): Ruan, D; DHondt, P; Fantoni, PF; DeCock, M; Nachtegael, M; Kerre, EE

Source: APPLIED ARTIFICIAL INTELLIGENCE 686-691, 2006

Language: English

Document Type: Article

Conference Title: 7th International Conference on Fuzzy Logic and Intelligent Technologies in Nuclear Science

Conference Date: AUG 29-31, 2006

Conference Location: Genova, ITALY

Abstract: Due to the fact that flood data series for small drainage basins is lacking, data that can be used for flood risk analysis is insufficient (Incomplete information). This is the risk analysis under small sample conditions. One method for the analysis of problems of this kind is to consider the small sample as fuzzy information. The optimized fuzzy information can then be processed using the information diffusion theory to obtain a result with higher reliability for risk analysis. Small samples can only supply limited and incomplete information. Statistical rules cannot be clearly demonstrated with only this information. Fortunately, the incomplete information, especially the fuzzy information supplied from the small sample, can be treated using the fuzzy information optimizing technology, based on the information diffusion theory. In this paper the risk analysis method, based on information diffusion theory, was used to advance a model for flood risk analysis. Application of the model was also illustrated taking the Jinhuajiang and Qujiang drainage basins of China as examples. The study indicated that the above model exhibited a fairly stable analytical end result, even in a small sample condition. The method can be applied easily and its analytical end result is easy to understand. It may play a guiding role on disaster prevention to some extent.

Addresses: Zhejiang Normal Univ, Inst Remote Sensing, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, XC, Zhejiang Normal Univ, Inst Remote Sensing, Jinhua, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: WORLD SCIENTIFIC PUBL CO PTE LTD

Publisher Address: PO BOX 128 FARRER RD, SINGAPORE 9128, SINGAPORE

ISBN: 981-256-690-2

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Interdisciplinary Applications

ISI Document Delivery No.: BEU34

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Record 52 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR

Title: Contrast enhancement for image based on wavelet neural network and stationary wavelet transform

Editor(s): Wang, J; Yi, Z; Zurada, JM; Lu, BL; Yin, H

Source: ADVANCES IN NEURAL NETWORKS - ISSN 2006, PT 2, PROCEEDINGS 551-556, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3972

Language: English

Document Type: Article

Conference Title: 3rd International Symposium on Neural Networks (ISSN 2006)

Conference Date: MAY 28-31, 2006

Conference Location: Chengdu, PEOPLES R CHINA

Conference Sponsors: Univ Electr Sci & Technol China, Chinese Univ Hong Kong, Asia Pacific Neural Network Assembly, European Neural Network Soc, IEEE Circuits & Syst Soc, IEEE Computat Intelligence Soc, Int Neural Network Soc, Natl Nat Sci Fdn China, KC Wong Educ Fdn Hong Kong

Abstract: After performing discrete stationary wavelet transform (DSWT) to an image, local contrast is enhanced with non-linear operator in the high frequency sub-bands, which are at coarser resolution levels. In order to enhance global contrast for an infrared image, low frequency sub-band image is also enhanced employing non-incomplete Beta transform (IBT), simulated annealing algorithm (SA) and wavelet neural network (WNN). IBT is used to obtain non-linear gray transform curve. Transform parameters are determined by SA so as to obtain optimal non-linear gray transform parameters. Contrast type of original image is determined by a new criterion. Gray transform parameters

space is determined respectively according to different contrast types. A kind of WNN is proposed to approximate the IBT in the whole low frequency sub-band image. The quality of enhanced image is evaluated by a total cost criterion. Experimental results show that the new algorithm can improve greatly the global and local contrast for images.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 12

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-34437-3

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 6

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BET84

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Record 53 of 101

Author(s): Wang, XD; Zhang, HR; Zhang, CJ; Cai, XS; Wang, JS; Ye, MY

Title: Online modeling of nonlinear systems using improved adaptive kernel methods

Editor(s): Wang, J; Yi, Z; Zurada, JM; Lu, BL; Yin, H

Source: ADVANCES IN NEURAL NETWORKS - ISSN 2006, PT 2, PROCEEDINGS 777-782, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3972

Language: English

Document Type: Article

Conference Title: 3rd International Symposium on Neural Networks (ISNN 2006)

Conference Date: MAY 28-31, 2006

Conference Location: Chengdu, PEOPLES R CHINA

Conference Sponsors: Univ Electr Sci & Technol China, Chinese Univ Hong Kong, Asia Pacific Neural Network Assembly, European Neural Network Soc, IEEE Circuits & Syst Soc, IEEE Computat Intelligence Soc, Int Neural Network Soc, Natl Nat Sci Fdn China, KC Wong Educ Fdn Hong Kong

Abstract: The least squares support vector machines (LS-SVMs) is a kernel method. The training problem of LS-SVMs is solved by finding a solution to a set of linear equations. This makes online adaptive implementation of the algorithm feasible. An improved adaptive algorithm is proposed for training the LS-SVMs in this paper. This algorithm is especially useful on online nonlinear system modeling. The experiments with benchmark problem have shown the validity of the proposed method even in the case of additive noise to the system.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Zhejiang Normal Univ, Coll Math & Phys, Jinhua, 321004 Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 5

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-34437-3

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 6

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BET84

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Record 54 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR

Title: Contrast enhancement for fruit image by gray transform and wavelet neural network

Source: PROCEEDINGS OF THE 2006 IEEE INTERNATIONAL CONFERENCE ON NETWORKING, SENSING AND CONTROL 1064-1069, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Networking, Sensing and Control

Conference Date: APR 23-25, 2006

Conference Location: Ft Lauderdale, FL

Conference Sponsors: IEEE Syst, Man and Cybernet Soc

KeyWords Plus: HISTOGRAM EQUALIZATION

Abstract: A new contrast enhancement algorithm for fruit image is proposed by gray transform and wavelet neural network (WNN). IBT is used to obtain non-linear gray transform curve. A new criterion is proposed with gray level histogram. Contrast type for original image is determined employing the new criterion. Transform parameters are determined directly by different contrast type of input image. In order to calculate non-linear gray transform in the whole image, a kind of WNN is proposed to approximate it. Experimental results show that the new algorithm is able to adaptively enhance the contrast for image. The computation for the new algorithm is  $O(MN)$ , where  $M$  and  $N$  are width and height in the original image.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 11

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0065-1

Source Item Page Count: 6

Subject Category: Automation & Control Systems; Computer Science, Artificial Intelligence; Computer Science, Information Systems; Computer Science, Interdisciplinary Applications

ISI Document Delivery No.: BER46

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Record 55 of 101

Author(s): Zhou, GC; Liang, JZ

Title: Granular computing model based on ontology

Editor(s): Zhang, YQ; Lin, TY

Source: 2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING 321-324, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Granular Computing

Conference Date: MAY 10-12, 2006

Conference Location: Atlanta, GA

Conference Sponsors: IEEE Computat Intelligence Soc, Georgia State Univ

Author Keywords: ontology; granular computing; quotient space; conceptualization; similarity

Abstract: This paper deals with granular computing model based on ontology. By ontology technique, a formal representation of concept is presented, and a new model for granular computing is constructed. Several related definitions are proposed, such as presentation of granularity, partition of classes, the size of granularity, composition and decomposition under the defined model. Finally, an algorithm for the model applying to text retrieval is designed, and by this technique, the computational complexity is reduced enormously.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhou, GC, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0133-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Theory & Methods

ISI Document Delivery No.: BEN81

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Record 56 of 101

Author(s): Wang, JY; Lin, RB

Title: A new knowledge reduction in inconsistent decision information system

Editor(s): Zhang, YQ; Lin, TY

Source: 2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING 377-380, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Granular Computing

Conference Date: MAY 10-12, 2006

Conference Location: Atlanta, GA

Conference Sponsors: IEEE Computat Intelligence Soc, Georgia State Univ

Author Keywords: consistent set; inconsistent system; knowledge reduction; rough set

Abstract: A new concept of knowledge reduction is introduced in inconsistent decision information system. It is described as maximum value distribution reduction, which preserves all maximum decision rules. The maximum value distribution eliminates the harsh requirement of the distribution and overcomes the drawbacks of the maximum distribution that may reduce the reliability of the derived decision rules. The relationships among distribution reduction, maximum value distribution reduction, maximum distribution reduction are examined. A criterion theorem and discriminating matrix with respect to maximum value reductions are obtained, hence a new approach to knowledge reduction in inconsistent information systems is proposed.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua Zhejiang, 321004 Peoples R China.

Reprint Address: Wang, JY, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua Zhejiang, 321004 Peoples R China.

Cited Reference Count: 10

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0133-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Theory & Methods

ISI Document Delivery No.: BEN81

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Record 57 of 101

Author(s): Zhang, HR; Wang, XD; Zhang, CJ; Lv, GY

Title: A new soft sensor method based on SVM

Editor(s): Zhang, YQ; Lin, TY

Source: 2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING 546-549, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Granular Computing

Conference Date: MAY 10-12, 2006

Conference Location: Atlanta, GA

Conference Sponsors: IEEE Computat Intelligence Soc, Georgia State Univ

Author Keywords: least square support vector machine; soft sensor; training algorithm

Abstract: This paper proposes a soft sensor technique based on support vector machine(SVM) technique, firstly gives an introduction to LSSVM, then designs a training algorithm for LSSVM, finally uses it to identify Absorption Stabilization System (ASS) process variable. Case studies are performed and indicate that the proposed method provides satisfactory performance with excellent approximation and generalization property, soft sensor technique based on LSSVM achieves superior performance to the conventional method based on neural networks.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinan, 321004 Peoples R China.

Reprint Address: Zhang, HR, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinan, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0133-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Theory & Methods

ISI Document Delivery No.: BEN81

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Record 58 of 101

Author(s): Wu, XH; Wang, QX

Title: Application of rough set attributes reduction in quality evaluation of dissertation

Editor(s): Zhang, YQ; Lin, TY

Source: 2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING 562-565, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Granular Computing

Conference Date: MAY 10-12, 2006

Conference Location: Atlanta, GA

Conference Sponsors: IEEE Computat Intelligence Soc, Georgia State Univ

Author Keywords: rough set; attributes reduction; dissertation; evaluation

Abstract: This paper presents a novel method to evaluate the quality of dissertations of undergraduates majoring in nature science. It adopts the method of rough set attributes reduction, applies the solving algorithm using attribute cores with the form of increasing the number of attributes, which results in a serial of rules and obtains a sound effect. Experiments illustrate the effectiveness of this algorithm.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinan, 321004 Peoples R China.

Reprint Address: Wu, XH, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinan, 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0133-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Theory & Methods

ISI Document Delivery No.: BEN81

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Record 59 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR; Lv, GY

Title: Contrast enhancement for image with non-linear gray transform and wavelet neural network

Editor(s): Zhang, YQ; Lin, TY

Source: 2006 IEEE INTERNATIONAL CONFERENCE ON GRANULAR COMPUTING 675-678, 2006

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Granular Computing

Conference Date: MAY 10-12, 2006

Conference Location: Atlanta, GA

Conference Sponsors: IEEE Computat Intelligence Soc, Georgia State Univ

Author Keywords: image enhancement; gray transform; simulated annealing algorithm; wavelet neural network

Abstract: A new contrast enhancement algorithm for image is proposed with non-linear gray transform and wavelet neural network (WNN). In-complete Beta transform (IBT) is used to obtain non-linear gray transform curve. Transform parameters are determined by simulated annealing algorithm (SA) to obtain optimal s space, a new criterion is proposed. Contrast type for original image is determined employing the new criterion. Parameters space is given respectively according to different contrast types, which shrinks parameters space greatly. Thus searching direction and selegray transform parameters. In order to avoid the expensive time for traditional contrast enhancement algorithms, which search optimal gray transform parameters in the whole parameterction of initial values of SA is guided by the new parameter space. In order to calculate IBT in the whole image, a kind of WNN is proposed to approximate the IBT. Experimental results show that the new algorithm is able to adaptively enhance the contrast for image well.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Peoples R China.

Cited Reference Count: 6

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 1-4244-0133-X

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Theory & Methods

ISI Document Delivery No.: BEN81

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Record 60 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR

Title: A de-noising algorithm of infrared image contrast enhancement

Editor(s): Yeung, DS; Liu, ZQ; Wang, XZ; Yan, H

Source: ADVANCES IN MACHINE LEARNING AND CYBERNETICS 1060-1069, 2006

Book Series: LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, 3930

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Abstract: An infrared image contrast enhancement algorithm based on discrete stationary wavelet transform (DSWT) and non-linear operator is proposed. Having implemented DSWT to an infrared image, de-noising is done by the method proposed in the high frequency sub-bands which are in the better resolution levels, and enhancement is implemented by combining a de-noising method with a non-linear gain method in the high frequency sub-bands which are in the worse resolution levels. Experiment results show that the new algorithm can effectively reduce the correlative noise (1/f noise), additive gauss white noise (AGWN) and multiplicative noise (MN) in the infrared image while also enhancing the contrast of the infrared image. In visual quality, the algorithm is better than the traditional unshaped mask method (USM), histogram equalization method (HIS), GWP method and WYQ method.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 19

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-33584-6

29-char Source Abbrev.: LECT NOTE ARTIF INTELL

Source Item Page Count: 10

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEN35

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Record 61 of 101

Author(s): Chen, ZY; Wu, GH; Liang, RH; Zhang, GF

Title: Skin incision using real-time cutaway based on FE analysis

Editor(s): Pan, ZG; Diener, H; Jin, XG; Gobel, S; Li, L

Source: TECHNOLOGIES FOR E-LEARNING AND DIGITAL ENTERTAINMENT, PROCEEDINGS 1053-1057, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3942

Language: English

Document Type: Article

Conference Title: 1st International Conference on Technologies for E-Learning and Digital Entertainment (Edutainment 2006)

Conference Date: APR 16-19, 2006

Conference Location: Hangzhou, PEOPLES R CHINA

Conference Sponsors: Zhejiang Univ, DEARC, Sch Comp Sci, China Soc Image & Graph, VR Comm, Zhejiang Prov, Hangzhou Natl Animat Base, Zhejiang Univ, State Key Lab CAD&CG, INI GraphicsNet, Int Journal Virtual Real, IFIF SG 16 Entertainment Comp, Nat Sci Fdn China, Peking Univ, Natl Lab Machine Percept, Bhihang Univ, Key Lab VR Tech MOE, Sun Yatsen Univ, Inst Comp Applicat, Hangzhou Dianzi Univ, Nanjing Normal Univ, Hong Kong Polytechn Univ

KeyWords Plus: IN-VIVO

Abstract: The mechanical behaviour of the human skin shows a nonlinear stress-strain relationship. Based on the behaviour of human dermis proposed by Hendriks, we develop a system to draw a specific skin incision shape which consists of four spine curves and two lines. Users can firstly define the two incision points on the skin, our system can superimpose the shape on the surface and show the skin incision cutaway. OBBTree analysis for the skin surface is used to put the incision shape. Followed by shape shown on the surface and finally a cutaway is generated to show the cut. Jittering problem generated by the above steps is also resolved.

Addresses: Zhejiang Normal Univ, Coll Informat Sci, Jinhua, 321004 Peoples R China.

Hangzhou Dianzi Univ, Coll Comp Sci, Hangzhou, 310018 Peoples R China.

Zhejiang Univ Technol, Coll Informat, Hangzhou, 310014 Peoples R China.

Anji Police Bur, Anji, 313300 Peoples R China.

Reprint Address: Chen, ZY, Zhejiang Normal Univ, Coll Informat Sci, Jinhua, 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

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Source Item Page Count: 5

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BEM03

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Record 62 of 101

Author(s): Zhang, HR; Sun, P

Title: A new flow control algorithm for high speed computer network

Editor(s): Grigoriev, D; Harrison, J; Hirsch, EA

Source: COMPUTER SCIENCE - THEORY AND APPLICATIONS 652-659, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3967

Language: English

Document Type: Article

Conference Title: International Computer Science Symposium in Russia (CSR 2006)

Conference Date: JUN 08-12, 2006

Conference Location: St Petersburg, RUSSIA

Conference Sponsors: US Civilian Res & Dev Fdn, Russian Fdn Basic Res

Conference Host: Steklov Inst Math

Abstract: Developing an effective flow control algorithm to avoid congestion is a hot topic in computer network society. This paper gives a mathematical model for general network at first, then discrete control theory is proposed as a key tool to design a new flow control algorithm for congestion avoidance in high speed network, the proposed algorithm assures the stability of network system. The simulation results show that the proposed method can adjust the sending rate and queue level in buffer rapidly and effectively. Moreover the method is easy to implement and apply to high speed computer network.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Reprint Address: Zhang, HR, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.

Cited Reference Count: 12

Publisher Name: SPRINGER-VERLAG BERLIN

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Source Item Page Count: 8

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BEM18

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Record 63 of 101

Author(s): Zhang, HR; Wang, XD

Title: Nonlinear systems modeling and control using support vector machine technique

Editor(s): Grigoriev, D; Harrison, J; Hirsch, EA

Source: COMPUTER SCIENCE - THEORY AND APPLICATIONS 660-669, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3967

Language: English

Document Type: Article

Conference Title: International Computer Science Symposium in Russia (CSR 2006)

Conference Date: JUN 08-12, 2006

Conference Location: St Petersburg, RUSSIA

Conference Sponsors: US Civilian Res & Dev Fdn, Russian Fdn Basic Res

Conference Host: Steklov Inst Math

Abstract: This paper firstly provides an short introduction to least square support vector machine (LSSVM), a new class of kernel-based techniques introduced in statistical learning theory and structural risk minimization, then designs a training algorithm for LSSVM, and uses LSSVM to model and control nonlinear systems. Simulation experiments are performed and indicate that the proposed method provides satisfactory performance with excellent generalization property and achieves superior modeling performance to the conventional method based on neural networks, at same time achieves favourable control performance.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.  
Reprint Address: Zhang, HR, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Peoples R China.  
Cited Reference Count: 8  
Publisher Name: SPRINGER-VERLAG BERLIN  
Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY  
ISSN: 0302-9743  
ISBN: 3-540-34166-8  
29-char Source Abbrev.: LECT NOTE COMPUT SCI  
Source Item Page Count: 10  
Subject Category: Computer Science, Theory & Methods  
ISI Document Delivery No.: BEM18

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Record 64 of 101

Author(s): Tan, WA; Zhao, JM; Ha, Q

Title: A flexible development platform supporting zero-time enterprise applications

Editor(s): Shen, W; Chao, KM; Lin, Z; Barthes, JPA; James, A

Source: COMPUTER SUPPORTED COOPERATIVE WORK IN DESIGN II 606-615, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3865

Language: English

Document Type: Article

Conference Title: 9th International Conference on Computer Supported Cooperative Work in Design

Conference Date: MAY 24-26, 2005

Conference Location: Coventry, ENGLAND

Conference Sponsors: Coventry Univ, IEEE, IEE, British Comp Soc

Abstract: The paper presents a flexible business application system development platform called FADP, which contains an enterprise process modeling system (EPMS) and an application system building environment (ASBE). System architecture and the key technologies of FADP are presented, including zero-time enterprise modeling based on components assembly techniques, zero-time enterprise model optimization based on dynamic process optimization techniques, component model-driven code generation (i.e., zero-time system construction), and cooperative work based on process model with flexible scheduling strategies. The proposed platform supports business process evolution in an enterprise's lifecycle.

Addresses: Zhejiang Normal Univ, Inst Software Engn, JinHua, Zhejiang 321004 Peoples R China.

Natl Res Council Canada, Integrated Mfg Technol Inst, London, ON N6G 4X8 Canada.

Reprint Address: Tan, WA, Zhejiang Normal Univ, Inst Software Engn, JinHua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 14

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

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29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 10

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BEF13

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Record 65 of 101

Author(s): Wu, FM; Lu, HJ

Title: Simulation of multilayer silicon thin films growth on Si(111) surface

Source: JOURNAL OF RARE EARTHS 24: 23-25 Sp. Iss. SI MAR 2006

Language: English

Document Type: Article

Conference Title: 3rd Asian Conference on Crystal Growth and Crystal Technology (CGCT-3)

Conference Date: OCT 16-19, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: Chinese Assoc Crystal Growth, Crystal Mat Shandong Univ, State Key Lab, CAS, Tech Inst Phys & Chem, Res Inst Synthet Crystal, Japanese Soc Promot Sci, 161 Comm

Author Keywords: silicon; homoepitaxy; KMC simulation; ES barrier

KeyWords Plus: SCANNING-TUNNELING-MICROSCOPY; EPITAXY

Abstract: The homoepitaxial growth of multilayer Si thin film on Si (111) surfaces was simulated by Monte Carlo (MC) method with realistic growth model and physical parameters. Special emphasis was placed on revealing the influence of the Ehrlich-Schwoebel (ES) barrier on the growth modes and morphologies. It is evident that there exists the ES barrier during multilayer Si thin film growth on Si (111) surface, which is deduced from the incomplete layer-by-layer growth process in the realistic experiments. The ES barrier  $E-B = 0.1$  similar to  $0.125$  eV is estimated from the three-dimensional (3D) MC simulation and compared with the experimental results.

Addresses: Zhejiang Normal Univ, Inst Condensed Matter Phys, Jinhua, 321004 Peoples R China.

Reprint Address: Wu, FM, Zhejiang Normal Univ, Inst Condensed Matter Phys, Jinhua, 321004 Peoples R China.

Cited Reference Count: 10

Publisher Name: METALLURGICAL INDUSTRY PRESS

Publisher Address: 2 XINJIEKOUWAI DAJIE, BEIJING 100088, PEOPLES R CHINA

ISSN: 1002-0721

29-char Source Abbrev.: J RARE EARTH

Source Item Page Count: 3

Subject Category: Chemistry, Applied

ISI Document Delivery No.: 039TY

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Record 66 of 101

Author(s): Li, SZ; Xiao, HL; Li, SL

Title: Regulation effect of microbiotic crusts on soil hydrological processes in Shapotou revegetation-fixed sand dune regions

Source: IGARSS 2005: IEEE INTERNATIONAL GEOSCIENCE AND REMOTE SENSING SYMPOSIUM, VOLS 1-8, PROCEEDINGS 4443-4446, 2005

Language: English

Document Type: Article

Conference Title: 25th IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2005)

Conference Date: JUL 25-29, 2005

Conference Location: Seoul, SOUTH KOREA

Conference Sponsors: IEEE, IEEE Geosci & Remote Sensing Soc, NASA, NOAA, USN Off Res, Japan Aerosp Explorat Agcy, Natl Polar orbiting Operat Environm Satellite Syst, Ball Aerosp & Technologies Corp, Int Union Radio Sci, Elect & Telecommun Res Inst, Korea Sci & Engn Fdn, Korea Natl Tourism Org, Korea Telecommun

Author Keywords: microbiotic crust; soil hydrological processes; revegetation-fixed sand dunes; Shapotou

Abstract: Microbiotic crusts (MC), also called biological soil crusts, cryptogamic crusts, mostly formed by cyanobacteria, green algae, lichens, and mosses, are widespread in arid and semiarid zones and well developed in a revegetation-fixed sand area of Shapotou, southeastern edge of Tengger desert, Northwest China. They lie adjacent to completely bare sand dunes, provide a "loam cap" for the structureless aeolian sand, and have greatly altered the hydrophysical properties of the topsoil in the regions, which would consequentially affect the soil hydrological processes.

Soil hydrological process of MC has been a most debated problem with so much academic concerns all along. This paper introduced the results gained in studies of the regulation effect of MC on soil hydrological processes such as precipitation penetration, soil water redistribution and surface evaporation, through synthetic analysis of serial field ecological investigation, experimental analysis of MC's hydrological properties, and soil hydrodynamics experiment under simulated precipitation in field as well as dynamic monitoring of soil water content in profiles of different vegetation-fixed and mobile sand dune regions after natural precipitation. Some results are as follows: (1) MC not only reduced the speed and depth of water penetration but also induced the instability of wetting front showed by appearance of "finger" flow in the water transition zone. (2) The year-by-year development of MC resulted in significant variations of process patterns of soil water distribution. Water redistribution in sand dune profile presented a trend toward top layer, showing an obvious effect of MC on precipitation interception. (3) MC greatly increased surface evaporation by reducing reflectivity and enhanced soil capillarity. The regulation effect of MC on soil hydrological process is deeply changing the soil water environment of this rainfed revegetation ecosystem in the sand dune regions, which might partly interpret the cause of the degraded vegetation ecosystem.

Addresses: Zhejiang Normal Univ, Dept Geog, Jinhua, 321004 Peoples R China.

Reprint Address: Li, SZ, Zhejiang Normal Univ, Dept Geog, Jinhua, 321004 Peoples R China.

Cited Reference Count: 5

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9050-4

Source Item Page Count: 4

Subject Category: Geosciences, Multidisciplinary; Remote Sensing

ISI Document Delivery No.: BEG75

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Record 67 of 101

Author(s): Zhou, WN

Title: Robust H-infinity output feedback control with variance and regional pole constraints for uncertain linear system

Source: DYNAMICS OF CONTINUOUS DISCRETE AND IMPULSIVE SYSTEMS-SERIES A-MATHEMATICAL ANALYSIS 13: 387-394 Part 1 Suppl. S FEB 2006

Language: English

Document Type: Article

Conference Title: 2nd International Conference on Impulsive Dynamical Systems and Applications

Conference Date: OCT 28-30, 2005

Conference Location: Wuxi, PEOPLES R CHINA

Author Keywords: robust control; H-infinity control; variance; D-stability

Abstract: A design problem of robust H-infinity output feedback controller with state variance and regional pole constraints was studied for time-varying uncertain systems in this paper. A sufficient condition for the existence of such controller was derived in terms of a certain linear matrix inequalities. Based on the feasible solution of these linear matrix inequalities, the gain matrices of the controller were constructed. Finally, a numerical example was given to illustrate the effectiveness of the obtained designing method.

Addresses: Zhejiang Normal Univ, Dept Math, Jinhua, 321004 Peoples R China.

Reprint Address: Zhou, WN, Zhejiang Normal Univ, Dept Math, Jinhua, 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: WATAM PRESS

Publisher Address: C/O DCDIS JOURNAL, 317 KAREN PLACE, WATERLOO, ONTARIO N2L 6K8, CANADA

ISSN: 1201-3390

29-char Source Abbrev.: DYN CONT DISCR IMP SYST SER A

Source Item Page Count: 8

Subject Category: Mathematics, Applied

ISI Document Delivery No.: 035GT

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Record 68 of 101

Author(s): Zhou, WN

Title: Robust D-stability analysis for a class of uncertain linear continuous time-delay systems

Source: DYNAMICS OF CONTINUOUS DISCRETE AND IMPULSIVE SYSTEMS-SERIES A-MATHEMATICAL ANALYSIS 13: 395-401 Part 1 Suppl. S FEB 2006

Language: English

Document Type: Article

Conference Title: 2nd International Conference on Impulsive Dynamical Systems and Applications

Conference Date: OCT 28-30, 2005

Conference Location: Wuxi, PEOPLES R CHINA

Author Keywords: robust control; time-delay; D-stability

KeyWords Plus: POLE-PLACEMENT

Abstract: A sufficient condition which guarantees robust, pole location within a specified circular region for a class of norm-bounded uncertain linear continuous time-delay systems is proposed by means of Lyapunov stability theorem, concept of spectral radius, and norm and matrix measure techniques. A numerical example is given to demonstrate the result.

Addresses: Zhejiang Normal Univ, Dept Math, Jinhua, 321004 Peoples R China.

Reprint Address: Zhou, WN, Zhejiang Normal Univ, Dept Math, Jinhua, 321004 Peoples R China.

Cited Reference Count: 13

Publisher Name: WATAM PRESS

Publisher Address: C/O DCDIS JOURNAL, 317 KAREN PLACE, WATERLOO, ONTARIO N2L 6K8, CANADA

ISSN: 1201-3390

29-char Source Abbrev.: DYN CONT DISCR IMP SYST SER A

Source Item Page Count: 7

Subject Category: Mathematics, Applied

ISI Document Delivery No.: 035GT

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Record 69 of 101

Author(s): Xu, JM; Sun, MX; Yang, XH

Title: A LMI approach to robust iterative learning control with current feedback for linear uncertain systems

Source: DYNAMICS OF CONTINUOUS DISCRETE AND IMPULSIVE SYSTEMS-SERIES A-MATHEMATICAL ANALYSIS 13: 402-409 Part 1 Suppl. S FEB 2006

Language: English

Document Type: Article

Conference Title: 2nd International Conference on Impulsive Dynamical Systems and Applications

Conference Date: OCT 28-30, 2005

Conference Location: Wuxi, PEOPLES R CHINA

Author Keywords: iterative learning control; LFT; LMI

Abstract: The problem of developing an iterative learning control(ILC) system with current feedback is addressed for a class of linear plants with norm-bounded parameter uncertainties. The synthesis problem of the developed ILC system is transformed in gamma-suboptimal H. control problem via the linear fractional transformation (LFT). A sufficient convergence condition of the ILC system is presented in terms of linear matrix inequalities (LMIs). Furthermore, the ILC system with fast convergence rate is constructed using a convex optimization technique with LMI constraints.

Addresses: Zhejiang Univ Technol, Coll Informat Engr, Hangzhou, 310014 Peoples R China.

Zhejiang Normal Univ, Hangzhou, 310012 Peoples R China.

Reprint Address: Xu, JM, Zhejiang Univ Technol, Coll Informat Engr, Hangzhou, 310014 Peoples R China.

Cited Reference Count: 9

Publisher Name: WATAM PRESS

Publisher Address: C/O DCDIS JOURNAL, 317 KAREN PLACE, WATERLOO, ONTARIO N2L 6K8, CANADA

ISSN: 1201-3390

29-char Source Abbrev.: DYN CONT DISCR IMP SYST SER A

Source Item Page Count: 8

Subject Category: Mathematics, Applied

ISI Document Delivery No.: 035GT

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Record 70 of 101

Author(s): Lv, GY; Wang, XD; Zhang, HR; Zhang, CJ

Title: PQ disturbances identification based on SVMs classifier

Editor(s): Zhao, MS; Shi, ZZ

Source: PROCEEDINGS OF THE 2005 INTERNATIONAL CONFERENCE ON NEURAL NETWORKS AND BRAIN, VOLS 1-3 222-226, 2005

Language: English

Document Type: Article

Conference Title: International Conference on Neural Networks and Brain (ICNN&B 2005)

Conference Date: OCT 13-15, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: China Neural Networks Council, IEEE Computat Intelligence Soc, Beijing Chapter, Chinese Inst Elect, Chinese Assoc Artificial Intelligence

KeyWords Plus: ARTIFICIAL NEURAL NETWORKS; EXPERT-SYSTEM; POWER; EVENTS

Abstract: The deregulation policies in electric power systems result in the absolute necessity to quantify power quality (PQ). An effective classification strategy for PQ disturbances was needed. A new method based on N-1 support vector machines (SVMs) was presented for PQ disturbances identification. Through phase-shift and some simple algebra operations, the PQ disturbances were detected first. Then a data dealing process was carried out to extract features from the detecting outputs. Then N kinds of PQ disturbances were classified with an N-1 SVMs classifier. The testing results show that the proposed method could classify the PQ disturbances successfully. Moreover, the classifier has an excellent performance on training speed and reliability.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Lv, GY, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 13

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9422-4

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEB63

---

Record 71 of 101

Author(s): Lv, GY; Wang, XD; Zhang, CJ; Zhang, HR

Title: PQ disturbances identification based on phase-shift and LS weighted fusion combining neural network

Editor(s): Zhao, MS; Shi, ZZ

Source: PROCEEDINGS OF THE 2005 INTERNATIONAL CONFERENCE ON NEURAL NETWORKS AND BRAIN, VOLS 1-3 227-231, 2005

Language: English

Document Type: Article

Conference Title: International Conference on Neural Networks and Brain (ICNN&B 2005)

Conference Date: OCT 13-15, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: China Neural Networks Council, IEEE Computat Intelligence Soc, Beijing Chapter, Chinese Inst Elect, Chinese Assoc Artificial Intelligence

Abstract: A new method based on phase-shift and least square (LS) weighted fusion combining neural network was presented for PQ disturbances detection and identification. Through phase-shift and some algebra operations, the method detected the PQ disturbances effectively. By a data dealing process with the detecting outputs, features were extracted for classification. Then five child BP ANNs with different structure were adopted to identify the PQ disturbances. The combining neural network fused the identification results of these child ANNs with LS weighted fusion algorithm finally. Comparing with single neural network, the combining one was more reliable in identification. The simulation results proved the conclusion.

Addresses: Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Lv, GY, Zhejiang Normal Univ, Dept Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE  
Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA  
ISBN: 0-7803-9422-4  
Source Item Page Count: 5  
Subject Category: Computer Science, Artificial Intelligence  
ISI Document Delivery No.: BEB63

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Record 72 of 101

Author(s): Zhang, CJ; Wang, JS; Wang, XD; Feng, HJ

Title: Contrast enhancement for image with incomplete beta transform and wavelet neural network

Editor(s): Zhao, MS; Shi, ZZ

Source: PROCEEDINGS OF THE 2005 INTERNATIONAL CONFERENCE ON NEURAL NETWORKS AND BRAIN, VOLS 1-3 1236-1241, 2005

Language: English

Document Type: Article

Conference Title: International Conference on Neural Networks and Brain (ICNN&B 2005)

Conference Date: OCT 13-15, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: China Neural Networks Council, IEEE Computat Intelligence Soc, Beijing Chapter, Chinese Inst Elect, Chinese Assoc Artificial Intelligence

KeyWords Plus: HISTOGRAM EQUALIZATION

Abstract: A new contrast enhancement algorithm for image is proposed with incomplete Beta transform (IBT) and wavelet neural network (WNN). IBT is used to obtain nonlinear gray transform curve. A new criterion is proposed with gray level histogram. Contrast type for original image is determined employing the new criterion. Transform parameters are determined directly by different contrast type of input image. In order to calculate IBT in the whole image, a kind of WNN is proposed to approximate the IBT. Experimental results show that the new algorithm is able to adaptively enhance the contrast for image. The computation for the new algorithm is  $O(NM)$ , where  $M$  and  $N$  are width and height in the original image.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Prov Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang Prov Peoples R China.

Cited Reference Count: 11

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9422-4

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEB63

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Record 73 of 101

Author(s): Feng, HJ; Zhang, HR

Title: Soft sensor technique based on robust SVM

Editor(s): Zhao, MS; Shi, ZZ

Source: PROCEEDINGS OF THE 2005 INTERNATIONAL CONFERENCE ON NEURAL NETWORKS AND BRAIN, VOLS 1-3 1704-1707, 2005

Language: English

Document Type: Article

Conference Title: International Conference on Neural Networks and Brain (ICNN&B 2005)

Conference Date: OCT 13-15, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: China Neural Networks Council, IEEE Computat Intelligence Soc, Beijing Chapter, Chinese Inst Elect, Chinese Assoc Artificial Intelligence

Abstract: Support Vector Machine (SVM) is a modern machine learning method based on Vapnik's statistical learning theory. In this paper, a robust regression Support Vector machine has been proposed as a tool to soft sensor technique, in which robust SVM is used to estimate variable which is highly nonlinear, then uses them to identify Absorption Stabilization System (ASS) process variable. Case studies are performed and indicate that the proposed method provides satisfactory performance with excellent approximation and generalization property, soft sensor technique based on robust SVM achieves superior performance to the conventional method based on neural networks.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Zhejiang, 321004 Peoples R China.

Reprint Address: Feng, HJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Zhejiang, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9422-4

Source Item Page Count: 4

Subject Category: Computer Science, Artificial Intelligence

ISI Document Delivery No.: BEB63

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Record 74 of 101

Author(s): Jiang, JP; Ren, FJ; Chen, TY

Title: Intelligent tutoring systems: Research status and its development in China

Source: PROCEEDINGS OF THE 2005 IEEE INTERNATIONAL CONFERENCE ON NATURAL LANGUAGE PROCESSING AND KNOWLEDGE ENGINEERING (IEEE NLP-KE'05) 683-689, 2005

Language: English

Document Type: Article

Conference Title: International Conference on Natural Language Processing and Knowledge Engineering

Conference Date: OCT 30-NOV 01, 2005

Conference Location: Wuhan, PEOPLES R CHINA

Conference Sponsors: IEEE, AAI, CIPSC, Chinese Assoc Artificial Intelligence, IEEE Signal Proc Soc, IEEE Beokomg Sect

Abstract: The first application of Artificial Intelligence (AI) to education has been to build Intelligent Tutoring Systems (ITS). With the development of modern information technologies, ITS has been increasingly applied in education more and more widely. The applications of ITS in education have been changing the traditional instructional model and making learning more effective and meaningful. In this paper, the definition, architecture, and characteristics of ITS, some typical ITS and the current status, as well as its research focus of ITS are presented. Then the current research and

applications of ITS in China are introduced. In the end, the paper discusses the future development of ITS.

Addresses: Zhejiang Normal Univ, Coll Educ, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Jiang, JP, Zhejiang Normal Univ, Coll Educ, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 13

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9361-9

Source Item Page Count: 7

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems

ISI Document Delivery No.: BDV06

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Record 75 of 101

Author(s): Zhou, YL; Lin, YQ

Title: Mechanism of school organizational knowledge development

Source: PROCEEDINGS OF THE 2005 IEEE INTERNATIONAL CONFERENCE ON NATURAL LANGUAGE PROCESSING AND KNOWLEDGE ENGINEERING (IEEE NLP-KE'05) 818-824, 2005

Language: English

Document Type: Article

Conference Title: International Conference on Natural Language Processing and Knowledge Engineering

Conference Date: OCT 30-NOV 01, 2005

Conference Location: Wuhan, PEOPLES R CHINA

Conference Sponsors: IEEE, AAI, CIPSC, Chinese Assoc Artificial Intelligence, IEEE Signal Proc Soc, IEEE Beokomg Sect

Author Keywords: individual knowledge; public statements; organizational knowledge (OK); organizational memory (OM); virtual learning environments (VLEs)

Abstract: Organizational knowledge is vital to the realization of goals of organizations. Effective use of this knowledge depends on the selective use of organizational memory. The term organizational memory is concerned with how organizations collect, store, and provide access to experience, skills and know-how. Schools are special organizations in the sense that they promote learning. Its organizational knowledge decides its competitive capacities, while its organizational memory decides its ability to develop persistently. In order to facilitate school organizational learning and memory, we present, by analogy of the mechanism of human memory, a model of school organizational memory process basing on relevant theories and researches of knowledge management. This model incorporates multiple phases of personal and social knowledge conversion that can be compatibly supported by virtual learning environments. This paper also introduces our practice with a virtual learning environment called PRIME, designed specially to support this model. We hope that our research can provide a theoretical framework for school knowledge creation and accumulation, and attract more attention to school knowledge organizational knowledge and memory.

Addresses: Zhejiang Normal Univ, Sch Educ, Zhejiang, 321004 Peoples R China.

Reprint Address: Zhou, YL, Zhejiang Normal Univ, Sch Educ, Zhejiang, 321004 Peoples R China.

Cited Reference Count: 17

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9361-9

Source Item Page Count: 7

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Information Systems

ISI Document Delivery No.: BDV06

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Record 76 of 101

Author(s): Song, JN; Tong, WQ; Zhi, XL

Title: ServiceBSP model with QoS considerations in grids

Editor(s): Shen, HT; Li, JB; Li, ML; Ni, J; Wang, W

Source: ADVANCED WEB AND NETWORK TECHNOLOGIES, AND APPLICATIONS, PROCEEDINGS 827-834, 2006

Book Series: LECTURE NOTES IN COMPUTER SCIENCE, 3842

Language: English

Document Type: Article

Conference Title: 8th Asia-Pacific Web Conference and Workshops (APWeb 2006)

Conference Date: JAN 16-18, 2006

Conference Location: Harbin, PEOPLES R CHINA

Conference Sponsors: Natl Nat Sci Fdn China, Australian Res Council Res Network EII, Harbin Inst Technol, Heilongjiang Univ, Hohai Univ, Yellow River Conservat Commiss

Abstract: Grid computing is the cutting-edge computing technology which is promising to aggregate large-scale and geographically-distributed computing resources for next generation of computing. Though the Grid computing is popular in today's IT infrastructure, the concrete service-oriented Grid environment (system) is difficult to develop. Quality of Grid Services (QoGS) shields the heterogeneity of available resources. Such a QoGS requires interoperability between Grid resources and a consistent developer's interface, which must be specified by feasible and applicable virtual organizations (VO). In addition, an economic model of Grid community may also be considered. With the consideration of the behaviors and characteristics of such desirable Grid systems, an architecture and model of service-based BSP or ServiceBSP (service-based Bulk-Synchronous Parallelism) is proposed, at the aim at establishing a high interoperation and high quality cooperation between each Grid service, while developing an efficient mechanism to evaluate the performances of Grid applications.

Addresses: Shanghai Univ, Sch Engn & Comp Sci, Shanghai, 200072 Peoples R China.

Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Song, JN, Shanghai Univ, Sch Engn & Comp Sci, Shanghai, 200072 Peoples R China.

Cited Reference Count: 13

Publisher Name: SPRINGER-VERLAG BERLIN

Publisher Address: HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY

ISSN: 0302-9743

ISBN: 3-540-31158-0

29-char Source Abbrev.: LECT NOTE COMPUT SCI

Source Item Page Count: 8

Subject Category: Computer Science, Theory & Methods

ISI Document Delivery No.: BDV63

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Record 77 of 101

Author(s): Peng, BJ; Wan, X; Wang, H; Jin, HZ; Zhao, Y

Title: Two novel methods for liquid refractive index or concentration measurement using reflex fiber optic sensors - art. no. 603411

Editor(s): Breckinridge, J; Wang, YT

Source: ICO20: OPTICAL DESIGN AND FABRICATION 3411-3411, 2006

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6034

Language: English

Document Type: Article

Conference Title: 20th Congress of the International-Commission-for-Optics

Conference Date: AUG 21-26, 2005

Conference Location: Changchun, PEOPLES R CHINA

Conference Sponsors: Int Commiss Opt, Chinese Opt Soc, Changchun Inst Opt, Fine Mech & Phys, CAS, AFOSR Asis Off, Chinese Acad Engn, Chinese Acad Sci & Technol, European Opt Soc, IEEE, LEOS, Natl Nat Sci Fdn China, Opt Soc Japan, Opt Soc Korea, Opt Soc Russia, Siberian, Opt Soc Amer, SPIE

Author Keywords: fiber optic sensor; concentration measurement; liquid refractive index; reflex intensity modulation; spot edge detection

KeyWords Plus: WATER

Abstract: Two novel content meters for liquid refractive index or concentration measurement are proposed based on the simple reflex fiber optic sensor configurations. One sensor exploits a reflex and concentrically arranged fiber probe structure which is very similar to the traditional intensity-modulated fiber optic displacement sensors, but the light captured by receiving fibers is modulated by the varied solute concentration, being in proportion to the liquid refractive index, instead of displacement. The other sensor works based on detecting the edge shift of the reflected light spot, which is modulated by the refractive index variation of the liquid. Theoretical analysis and simulations are carried out with the measurement range of refractive index from 1.0 to 1.5.

Addresses: Zhejiang Normal Univ, Inst Informat Opt, Jinhua, 321004 Peoples R China.

Reprint Address: Peng, BJ, Zhejiang Normal Univ, Inst Informat Opt, Jinhua, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: SPIE-INT SOCIETY OPTICAL ENGINEERING

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Source Item Page Count: 6

Subject Category: Optics

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Record 78 of 101

Author(s): Wang, XD; Zhang, CJ; Zhang, HR; Feng, GL; Xu, XL

Title: Identification of nonlinear optical systems using adaptive kernel methods - art. no. 602827

Editor(s): Chen, YC; Fan, DY; Gao, CQ; Zhou, SH

Source: ICO20: LASERS AND LASER TECHNOLOGIES 2827-2827, 2005

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6028

Language: English

Document Type: Article

Conference Title: 20th Congress of the International-Commission-for-Optics

Conference Date: AUG 21-26, 2005

Conference Location: Changchun, PEOPLES R CHINA

Conference Sponsors: Int Commiss Opt, Chinese Opt Soc, Changchun Inst Opt, Fine Mech & Phys, CAS, AFOSR Asis Off, Chinese Acad Engn, Chinese Acad Sci & Technol, European Opt Soc, IEEE, LEOS, Natl Nat Sci Fdn China, Opt Soc Japan, Opt Soc Korea, Opt Soc Russia, Siberian, Opt Soc Amer, SPIE

Author Keywords: nonlinear optics; chaos; identification; adaptive kernel methods; optical bistable

Abstract: An identification approach of nonlinear optical dynamic systems, based on adaptive kernel methods which are modified version of least squares support vector machine (LS-SVM), is presented in order to obtain the reference dynamic model for solving real time applications such as adaptive signal processing of the optical systems. The feasibility of this approach is demonstrated with the computer simulation through identifying a Brago, acoustic-optical bistable system. Unlike artificial neural networks, the adaptive kernel methods possess prominent advantages: over fitting is unlikely to occur by employing structural risk minimization criterion, the global optimal solution can be uniquely obtained owing to that its training is performed through the solution of a set of linear equations. Also, the adaptive kernel methods are still effective for the nonlinear optical systems with a variation of the system parameter. This method is robust with respect to noise, and it constitutes another powerful tool for the identification of nonlinear optical systems.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: SPIE-INT SOCIETY OPTICAL ENGINEERING

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29-char Source Abbrev.: P SOC PHOTO-OPT INSTRUM ENG

Source Item Page Count: 7

Subject Category: Optics

ISI Document Delivery No.: BDT85

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Record 79 of 101

Author(s): Cheng, CG; Wang, B; Liu, HG; Zhu, PX; Li, DT; Chen, QJ

Title: FTIR study on the normal and malignant gastric tissues - art. no. 60261d

Editor(s): Bally, GV; Luo, Q

Source: ICO20: BIOMEDICAL OPTICS D261-D261, 2006

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6026

Language: English

Document Type: Article

Conference Title: 20th Congress of the International-Commission-for-Optics

Conference Date: AUG 21-26, 2005

Conference Location: Changchun, PEOPLES R CHINA

Conference Sponsors: Int Commiss Opt, Chinese Opt Soc, Changchun Inst Opt, Fine Mech & Phys, CAS, AFOSR Asis Off, Chinese Acad Engn, Chinese Acad Sci & Technol, European Opt Soc, IEEE, LEOS, Natl Nat Sci Fdn China, Opt Soc Japan, Opt Soc Korea, Opt Soc Russia, Siberian, Opt Soc Amer, SPIE

Author Keywords: Fourier transform infrared spectroscopy; OMNI-sampler; gastric tissues

KeyWords Plus: SQUAMOUS-CELL CARCINOMA; ESOPHAGEAL CANCER; EXPRESSION; PROTEIN; LESIONS

Abstract: By experimenting with Fourier transform infrared spectroscopy (FTIR), it was found that FTIR yielded much better results and faster determination of normal and malignant gastric tissues when accompanied with OMNI-sampler. The results showed that there were obvious and regularity differences between FTIR spectra of them in spectral parameters such as frequency, intensity and shape of the bands etc. They indicated significant differences of content, structure and conformation of proteins, nucleic acids and lipids in normal and malignant gastric tissues. The probability found by the results of goodness-of-fit tests of frequency of the bands in the second derivative FTIR, between each of the normal and malignant gastric tissues was less than 0.01. This result was found to be significant. The present results suggested that FTIR could show the properties of normal and malignant gastric tissues in the molecular level. It contains the ability to supply rich and reliable information to investigation of normal and malignant gastric tissues and can be used as a convenient and reliable diagnostic tool for tumors.

Addresses: Zhejiang Normal Univ, Coll Chem & Life Sci, Jinhua, 321004 Peoples R China.

Reprint Address: Cheng, CG, Zhejiang Normal Univ, Coll Chem & Life Sci, Jinhua, 321004 Peoples R China.

Cited Reference Count: 17

Publisher Name: SPIE-INT SOCIETY OPTICAL ENGINEERING

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29-char Source Abbrev.: P SOC PHOTO-OPT INSTRUM ENG

Source Item Page Count: 6

Subject Category: Engineering, Biomedical; Optics

ISI Document Delivery No.: BDU00

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Record 80 of 101

Author(s): Dong, LW; Wang, H; Wang, JD

Title: Wobbling phenomena of spatial soliton in a transverse inhomogeneous medium - art. no. 602149

Editor(s): Tucker, RS; Chiaroni, D; Gu, W; Kitayama, KI

Source: OPTICAL TRANSMISSION, SWITCHING, AND SUBSYSTEMS III, PTS 1 AND 2 2149-2149, 2005

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6021

Language: English

Document Type: Article

Conference Title: Conference on Optical Transmission, Switching and Subsystems III

Conference Date: NOV 07-10, 2005

Conference Location: Shanghai, PEOPLES R CHINA

Conference Sponsors: SPIE, Chinese Opt Soc, China Inst Commun, Shanghai Jiao Tong Univ, Alcatel Shanghai Bell, Shanghai Inst Opt & Fine Mech, Photon Bridges, IEEE Commun Soc, IEEE LEOS, Opt Soc Amer, Huawei Technol

Author Keywords: wobbling; effective-particle approach; soliton

KeyWords Plus: LIGHT-BEAM PROPAGATION; NONLINEAR INTERFACES; PARTICLE; LATTICES

Abstract: Wobbling phenomena of spatial soliton in an inhomogeneous medium is investigated. By means of effective-particle approach method, we analyze the dynamics of the solitons. The results show that solitons wobble in transverse direction during propagation. The normalized width of the waveguide play a key role in determining the wobbling periods of solitons. Furthermore, the propagation dynamics of the solitons are simulated numerically and a good agreement is obtained between the analysis and the numerical results. This phenomenon may be used in all-optical router, switcher etc.

Addresses: Zhejiang Normal Univ, Inst Informat Opt, Jinhua, 321004 Peoples R China.

Reprint Address: Dong, LW, Zhejiang Normal Univ, Inst Informat Opt, Jinhua, 321004 Peoples R China.

Cited Reference Count: 18

Publisher Name: SPIE-INT SOCIETY OPTICAL ENGINEERING

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29-char Source Abbrev.: P SOC PHOTO-OPT INSTRUM ENG

Source Item Page Count: 8

Subject Category: Optics; Telecommunications

ISI Document Delivery No.: BDT86

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Record 81 of 101

Author(s): Zhang, CJ; Wang, XD; Zhang, HR; Feng, HJ

Title: An efficient approach to segment man-made target from thermal image - art. no. 60271H

Editor(s): Sheng, YL; Zhuang, SL; Zhang, YM

Source: ICO20: OPTICAL INFORMATION PROCESSING, PTS 1 AND 2 H271-H271, 2006

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6027

Language: English

Document Type: Article

Conference Title: 20th Congress of the International-Commission-for-Optics

Conference Date: AUG 21-26, 2005

Conference Location: Changchun, PEOPLES R CHINA

Conference Sponsors: Int Commiss Opt, Chinese Opt Soc, Changchun Inst Opt, Fine Mech & Phys, CAS, AFOSR Asis Off, Chinese Acad Engr, Chinese Acad Sci & Technol, European Opt Soc, IEEE, LEOS, Natl Nat Sci Fdn China, Opt Soc Japan, Opt Soc Korea, Opt Soc Russia, Siberian, Opt Soc Amer, SPIE

Author Keywords: infrared image; segmentation; Bezier histogram; curvature; contrast enhancement

Abstract: A new fast algorithm to segment man-made target from infrared image is given employing Bezier histogram and edge information. In order to reduce computation burden, an efficient approach to select region of interest (ROI) is proposed based on prior-information. Thus a piece of region, which contains a target to be segmented, is extracted from original image. The gray level histogram of ROI is smoothed by Bezier curve to restrain noise in the ROI. Thus Bezier histogram is obtained. Peaks of curvature curve in the Bezier histogram are detected to obtained segmentation thresholds. An optimal segmentation threshold is selected with a new criterion. The optimal threshold segments the ROI well. In order to obtain better segmentation result, firstly a new algorithm, which bases on discrete stationary

wavelet transform and non-linear gain operator is proposed to enhance the detail of target in the ROI. Canny operator is used to extract the edge information of target in the enhanced ROI. Finally, excellent segmentation result is obtained by combining Bezier histogram threshold method with edge information of target. Experimental results show that a man-made target can be segmented effectively from complex background in infrared image by the new algorithm.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 9

Publisher Name: SPIE-INT SOCIETY OPTICAL ENGINEERING

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29-char Source Abbrev.: P SOC PHOTO-OPT INSTRUM ENG

Source Item Page Count: 7

Subject Category: Optics; Imaging Science & Photographic Technology

ISI Document Delivery No.: BDT88

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Record 82 of 101

Author(s): Peng, BJ; Liao, YB; Zhang, M; Wang, H; Ying, CF; Lai, SR

Title: Measurement of fibers' valid elastic-optic constant based on optical fiber Bragg grating sensor - art. no. 602746

Editor(s): Sheng, YL; Zhuang, SL; Zhang, YM

Source: ICO20: OPTICAL INFORMATION PROCESSING, PTS 1 AND 2 2746-2746, 2006

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6027

Language: English

Document Type: Article

Conference Title: 20th Congress of the International-Commission-for-Optics

Conference Date: AUG 21-26, 2005

Conference Location: Changchun, PEOPLES R CHINA

Conference Sponsors: Int Commiss Opt, Chinese Opt Soc, Changchun Inst Opt, Fine Mech & Phys, CAS, AFOSR Asis Off, Chinese Acad Engrn, Chinese Acad Sci & Technol, European Opt Soc, IEEE, LEOS, Natl Nat Sci Fdn China, Opt Soc Japan, Opt Soc Korea, Opt Soc Russia, Siberian, Opt Soc Amer, SPIE

Author Keywords: fiber Bragg grating; strain; valid elastic-optic constant; photoelectric detection

Abstract: With the fast development of fiber technology, a lot of new type fibers come out one after another. As the fiber core materials of these new type fibers are not as the traditional pure quartz, if we want to find out the new characteristics of these new type fibers quantitatively, we must know its valid elastic-optic constants, so how to measure accurately or calculate valid elastic-optic constants of these new type fibers are the questions we are facing and we must solve them exactly. Plenty of fiber cores of the new type are adulterated, and some material characteristic parameters have no interrelated formula, so someone can only gain them by experiments. There are few literatures published about detecting valid elastic-optic constants. The common method is comparison measuring with piezoelectricity crystal, which is operated complexly and the precision is not high. So this method is not suitable to measure the thin fiber. This paper reports a new method to measure fibers valid elastic-optic constants using a temperature reference FBG, a sensing FBG and a kind of material with known expansion coefficient. We also establish a experimental system, the result of experiment proves that the system can solve the existent cross sensitive problem

which caused by temperature and strain effectively. Measurement error is smaller than 1.3%. In addition, this text also points out two other measurement methods in use of FBG combining fiber interferometer and general Michelson interferometer.

Addresses: Zhejiang Normal Univ, Inst Informat Opt, Jinhua, 321004 Peoples R China.

Reprint Address: Peng, BJ, Zhejiang Normal Univ, Inst Informat Opt, Jinhua, 321004 Peoples R China.

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Source Item Page Count: 9

Subject Category: Optics; Imaging Science & Photographic Technology

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Record 83 of 101

Author(s): Wang, XD; Zhang, HR; Zhang, CJ; Feng, GL; Jiang, ML

Title: LS-SVM based signal processing of reflective fiber optic displacement sensor - art. no. 602749

Editor(s): Sheng, YL; Zhuang, SL; Zhang, YM

Source: ICO20: OPTICAL INFORMATION PROCESSING, PTS 1 AND 2 2749-2749, 2006

Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE), 6027

Language: English

Document Type: Article

Conference Title: 20th Congress of the International-Commission-for-Optics

Conference Date: AUG 21-26, 2005

Conference Location: Changchun, PEOPLES R CHINA

Conference Sponsors: Int Commiss Opt, Chinese Opt Soc, Changchun Inst Opt, Fine Mech & Phys, CAS, AFOSR Asis Off, Chinese Acad Engn, Chinese Acad Sci & Technol, European Opt Soc, IEEE, LEOS, Natl Nat Sci Fdn China, Opt Soc Japan, Opt Soc Korea, Opt Soc Russia, Siberian, Opt Soc Amer, SPIE

Author Keywords: fiber optics sensors; displacement; nonlinear; neural networks; least squares support vector machine

KeyWords Plus: STRAIN

Abstract: A least squares support vector machine (LS-SVM) based signal processing approach of reflective fiber optic displacement sensor is presented. The example for extending measuring range of the sensor using LS-SVM has been illustrated. From the experimental results, it can be clearly seen that not only the measuring range can be extended to the whole response characteristics of the fiber optics displacement sensor effectively, but also a desired linear relationship between the actual displacement and the LS-SVM predicted output can be obtained. This means the method proposed is very effective for the signal processing of the sensor.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Peoples R China.

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Subject Category: Optics; Imaging Science & Photographic Technology  
ISI Document Delivery No.: BDT88

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Record 84 of 101  
Author(s): Qu, YT; Jin, BY; Xu, H; Ye, XT  
Title: A structured data object based agent component oriented approach to software development  
Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 270-275, 2005  
Language: English  
Document Type: Article  
Conference Title: 4th International Conference on Machine Learning and Cybernetics  
Conference Date: AUG 18-21, 2005  
Conference Location: Guangzhou, PEOPLES R CHINA  
Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany  
Author Keywords: structured data object; agent component; software complexity; agent; component  
Abstract: Using software agents as next generation flexible components and applying reuse technologies to rapidly construct agents and agent systems have great promise to improve application and system construction. Agent-based approach in software engineering is regarded as a promising technique in the development of software. First, a principle and method structured data object based for simplifying the complex information system development and evolution is discussed, and a structured object-based agent component framework is proposed. Second, one of the implementation details about a structured object-based agent component is discussed. Finally, an application instance developed by this method is introduced.  
Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.  
Reprint Address: Qu, YT, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.  
Cited Reference Count: 10  
Publisher Name: IEEE  
Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA  
ISBN: 0-7803-9091-1  
Source Item Page Count: 6  
Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems  
ISI Document Delivery No.: BDT94

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Record 85 of 101  
Author(s): Zhou, WN; Meng, PY  
Title: LMI-based H-infinity control design with regional stability constraint for T-S fuzzy system  
Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND

CYBERNETICS, VOLS 1-9 868-873, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: Takagi-Sugeno model; regional stability; robust control; H-infinity performance; linear matrix inequality

KeyWords Plus: POLE-PLACEMENT; UNCERTAINTY

Abstract: Using the linear matrix inequality method, the problem of H-infinity control design for Takagi-Sugeno fuzzy system with regional stability constraint was studied. A sufficient condition for the existence of state feedback control law was derived under which the closed-loop system is regional stable and possesses H-infinity performance. Based on this sufficient condition and the parallel distributed compensator, a global controller was designed by linear matrix inequality technique which ensures the closed-loop systems to be robust regional stable and possess H-infinity performance. Finally, an example was given to illustrate the obtained results.

Addresses: Zhejiang Normal Univ, Inst Math, Jinhua, 321004 Peoples R China.

Reprint Address: Zhou, WN, Zhejiang Normal Univ, Inst Math, Jinhua, 321004 Peoples R China.

Cited Reference Count: 12

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9091-1

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

ISI Document Delivery No.: BDT94

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Record 86 of 101

Author(s): Jin, YX

Title: An approach for codesign of ERTS based on non-function constraints

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 1442-1446, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: NF-constraints (non-functional constraints); codesign; high-level analysis; low-level integration; ERTS (embedded real-time systems)

Abstract: Because of functional and non-functional properties of embedded real-time systems, their development is

becoming increasingly complex and difficult. In order to solve this problem, this paper presents a three-step codesign approach based on non-function constraints. The first step develops non-functional constraints using high-level analysis method between different non-functional properties. Then, system functions are generated by use of high-level modelling tools to increase automation. Finally, low-level integration performs relatively conventional codesign to map the functions onto a platform until meeting the non-functional requirements. The method proposed by this paper emphasizes ensuring system timing predictability and amenability to change.

Addresses: Zhejiang Normal Univ, Inst Comp Sci, Jinhua, 321004 Peoples R China.

Reprint Address: Jin, YX, Zhejiang Normal Univ, Inst Comp Sci, Jinhua, 321004 Peoples R China.

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Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

ISI Document Delivery No.: BDT94

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Record 87 of 101

Author(s): Wang, JY; Zhou, GC

Title: Variable precision rough set model in incomplete information system

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 1883-1887, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: incomplete information systems; tolerance relations; non-symmetric similarity relations; variable precision rough sets

KeyWords Plus: RULES

Abstract: This paper discusses the concept unit decision rate for attribute values in incomplete information systems, and extends rough set models based on tolerance relations and non-symmetric similarity relations. The variable precision rough set model is established and its property is discussed in incomplete information systems.

Addresses: Zhejiang Normal Univ, Informat Sci & Engn Coll, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Wang, JY, Zhejiang Normal Univ, Informat Sci & Engn Coll, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 23

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9091-1

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

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Record 88 of 101

Author(s): Wang, LX; Han, JM; Wei, Z; Zhou, GC

Title: Application of layered clustering and plane partition in web page classification

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 2325-2330, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: text clustering; layered clustering; K-means; Web mining

Abstract: The layered clustering can create layered nesting class with high precision. But the computing complexity is relatively high so that it is not fitted to solve large amount of sample calculation problems. K-means method has high efficiency while it is affected easily by the choice of the center of initial clustering. So to the irregular distributed samples, the clustering effect is usually not good. The paper focuses on the distribution features and complexities of samples in Web page classification and puts forward a classification method ---- to combine the layered clustering and plane partition. Firstly we use the algorithm of layered clustering in a few of samples to generate original clustering centers of sample set. Secondly, K-means method is used to classify the whole samples set. This strategy not only takes full advantage of the high efficiency of the K-means algorithm but also makes good use of the high precision and reliability of layered clustering method. Finally, this paper apply the method of combining the layered clustering and plane partition to solving the problems of text classification and presents some experimental results.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Han, JM, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE

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Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

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Record 89 of 101

Author(s): Zhang, HR; Wang, XD; Zhang, CJ; Xu, XL

Title: Modeling nonlinear dynamical systems using support vector machine

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND

CYBERNETICS, VOLS 1-9 3204-3209, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: support vector machine; modeling; robustness

Abstract: This paper proposes a general framework for modeling nonlinear dynamical systems based on support vector machine (SVM), firstly provides a short introduction to regression SVM, then uses standard support vector machine to model nonlinear dynamical system, and gives a theoretic analysis about its robustness under noise. The simulation results indicate that the SVM method can reduce the effect of sample's number and noise for modeling, and its performance is better than that of neural network modeling.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, HR, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

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Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

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Record 90 of 101

Author(s): Jin, BY; Qu, YT; Ma, YJ; Luo, HB

Title: Application of PBIL algorithm to prediction of protein secondary structure

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 3340-3345, 2005

Language: English

Document Type: Article

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Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: PBIL; evolutionary algorithms; prediction of protein secondary structure

KeyWords Plus: PATTERN-RECOGNITION

Abstract: Prediction of protein secondary structure has not been resolved in bioinformatics for over thirty years. Numerous methods have been developed to conquer this problem so far, but the results of most methods are not satisfactory. The Chou-Fasman method is simple, straightforward, and instructive to biologists and chemists, although its prediction accuracy is not as good as some newly developed learning algorithms such as neural network and SVM.

This article presents the first attempt to predict protein secondary structure by means of PBIL algorithm. The idea is to predict the secondary structure by statistically optimal functions based on rules derived from the sequence-structure data. These rules, as part of optimal or tabu functions, are quite important to the success of this algorithm. The concept of probability of secondary structure corresponding to amino acids in sequence has been successfully applied to calculating the optimal function, providing a new approach to prediction of protein secondary structure.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Reprint Address: Jin, BY, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, Zhejiang 321004 Peoples R China.

Cited Reference Count: 10

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9091-1

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

ISI Document Delivery No.: BDT94

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Record 91 of 101

Author(s): Wang, XD; Zhang, HR; Zhang, CJ

Title: Signals recognition of electronic nose based on support vector machines

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 3394-3398, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: electronic nose; support vector machines; pattern recognition

KeyWords Plus: NEURAL NETWORKS

Abstract: A new intelligent method for signals recognition of electronic nose, based on support vector machine (SVM) classification, is presented. The SVM operates on the principle of structure risk minimization; hence a better generalization ability is guaranteed. This paper discusses the basic principle of the SVM at first, and then uses it as a classifier to recognize the gas category. The method can classify complicated patterns and achieve higher recognition rate at reasonably small size of training sample set and can overcome disadvantages of the artificial neural networks. The experiments of the recognition of three different gases, ethanol, gasoline and acetone, have been presented and discussed. The results indicate that the SVM classifier exhibits good generalization performance and enables the average recognition rate to reach 88.33% for the testing samples. This means the method proposed is effective for signals recognition of electronic nose.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhu, 321004 Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhu, 321004 Peoples R China.

Cited Reference Count: 8

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9091-1

Source Item Page Count: 5

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

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Record 92 of 101

Author(s): Liang, JZ; Gao, JH

Title: Kernel function clustering algorithm with optimized parameters

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 4400-4404, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: kernel function; learning algorithm; clustering; optimization; feature space

Abstract: This paper deals with kernel function clustering algorithm with optimized parameter. Traditional clustering problems and solving algorithms are analyzed, and several limitations of traditional clustering algorithm are listed. These limitations are overcome by introducing kernel functions, which a nonlinear problem is transformed into a high dimension space. This paper proposes a kind of kernel function clustering algorithm with parameters optimized. Using these techniques, the nonlinear clustering problem in the high dimension space become simpler in which the inner distances of sample in the same class are shrunk and the distances between two class centers are increased relatively. The algorithm computing complexity is analyzed and a strategy of reducing complexity is presented. Also the primary factor of affecting clustering precision is discussed through an experiment example.

Addresses: Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Liang, JZ, Zhejiang Normal Univ, Sch Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: IEEE

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Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

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Record 93 of 101

Author(s): Zhang, CJ; Yang, F; Wang, XD; Zhang, HR

Title: An efficient non-linear algorithm for contrast enhancement of infrared image

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 4946-4951, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: discrete stationary wavelet transform; generalized cross validation; de-noising by threshold; contrast enhancement; non-linear gain

KeyWords Plus: NOISE

Abstract: A kind of infrared image contrast enhancement algorithm based on discrete stationary wavelet transform (DSWT) and non-linear gain operator is proposed. Having implemented DSWT to an infrared image, de-noising is done by the method proposed in the high frequency sub-bands which are in the better resolution levels and enhancement is implemented by combining de-noising method with non-linear gain method in the high frequency sub-bands which are the worse resolution levels. According to experimental results, the new algorithm can reduce effectively the correlative noise (1/f noise), additive gauss white noise (AGWN) and multiplicative noise (MN) in the infrared image while it also enhances the contrast of infrared image well. In visual quality, the algorithm is better than the traditional unshaped mask method (USM), histogram equalization method (HIS) and other two methods in Ref. [3] and Ref. [5].

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engr, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, CJ, Zhejiang Normal Univ, Coll Informat Sci & Engr, Jinhua, 321004 Peoples R China.

Cited Reference Count: 19

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9091-1

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

ISI Document Delivery No.: BDT94

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Record 94 of 101

Author(s): Zhou, WN

Title: Dynamic output feedback control with an alpha-stability constraint for uncertain multiple time-delay system

Source: PROCEEDINGS OF 2005 INTERNATIONAL CONFERENCE ON MACHINE LEARNING AND CYBERNETICS, VOLS 1-9 5641-5646, 2005

Language: English

Document Type: Article

Conference Title: 4th International Conference on Machine Learning and Cybernetics

Conference Date: AUG 18-21, 2005

Conference Location: Guangzhou, PEOPLES R CHINA

Conference Sponsors: IEEE Systems, Man & Cybernet TCC, Hong Kong Polytechn Univ, Hebei Univ, S China Univ

Technol, Chongqing Univ, Sun Yatsen Univ, Harbin Inst Technol, Int Univ Germany

Author Keywords: H-infinity control; time-delay; uncertainty; alpha-stability

Abstract: The analysis and synthesis of H-infinity dynamic output feedback controller with an alpha-stability constraint for linear uncertain multiple time-delay systems is focused on. A sufficient condition for alpha-stability of the systems is derived and the controller is constructed by using linear matrix inequalities technique. Moreover, a numerical example is given to illustrate how to get the controller.

Addresses: Zhejiang Normal Univ, Math Inst, Jinhua, 321004 Peoples R China.

Reprint Address: Zhou, WN, Zhejiang Normal Univ, Math Inst, Jinhua, 321004 Peoples R China.

Cited Reference Count: 7

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

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Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics; Computer Science, Information Systems

ISI Document Delivery No.: BDT94

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Record 95 of 101

Author(s): Xi, C; Yu, SB

Title: Study on absolute vibration velocity sensor based on fiber-optic for ultra-low frequency measurement

Editor(s): Qi, JM; Cui, JP

Source: ICEMI 2005: CONFERENCE PROCEEDINGS OF THE SEVENTH INTERNATIONAL CONFERENCE ON ELECTRONIC MEASUREMENT & INSTRUMENTS, VOL 7 76-81, 2005

Language: English

Document Type: Article

Conference Title: 7th International Conference on Electronic Measurement and Instruments

Conference Date: AUG 16-18, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE Beijing Sect, Chinese Inst Elect, CNNSF, Elect Measurement & Instruments Soc, CIE, Beijing Jiaotong Univ

Author Keywords: fiber-optic sensor; intensity modulation; absolute vibration; sensitivity; ultra-low frequency

Abstract: An absolute vibration velocity sensor based on fiber-optic for ultra-low frequency measurement was introduced. On the basis of the sensor's mechanical model, the dynamic motion model of resonant structure was presented. The linearity of the light intensity distribution formed by the GRIN end was detailed analyzed and the relation between the output signal and the signal of the vibration input was obtained. The study shows that it has higher sensitivity in the low frequency band than the inertial magnetoelectric velocity transducer and the ability of anti-jamming is been improved.

Addresses: Zhejiang Normal Univ, Coll Math & Phys, Zhejiang, 321004 Peoples R China.

Reprint Address: Xi, C, Zhejiang Normal Univ, Coll Math & Phys, Zhejiang, 321004 Peoples R China.

Cited Reference Count: 6

Publisher Name: INT ACAD PUBL BEIJING WORLD PUBL CORP

Publisher Address: 137 CHAONEI DAJIE, BEIJING 100010, PEOPLES R CHINA

ISBN: 7-5062-7443-4

Source Item Page Count: 6

Subject Category: Engineering, Electrical & Electronic; Instruments & Instrumentation

ISI Document Delivery No.: BDR73

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Record 96 of 101

Author(s): Zhang, HR; Wang, XD; Zhang, CJ; Xu, XL

Title: Soft sensor technique based on support vector machine

Editor(s): Qi, JM; Cui, JP

Source: ICEMI 2005: CONFERENCE PROCEEDINGS OF THE SEVENTH INTERNATIONAL CONFERENCE ON ELECTRONIC MEASUREMENT & INSTRUMENTS, VOL 7 217-220, 2005

Language: English

Document Type: Article

Conference Title: 7th International Conference on Electronic Measurement and Instruments

Conference Date: AUG 16-18, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE Beijing Sect, Chinese Inst Elect, CNNSF, Elect Measurement & Instruments Soc, CIE, Beijing Jiaotong Univ

Author Keywords: support vector machine; soft sensor; generalization

Abstract: Support Vector Machine (SVM) is a modern machine learning method based on Vapnik's statistical learning theory, In this paper, Support Vector Regression (SVR) has been proposed as a tool to soft sensor technique, in which SVR is used to estimate variable which is highly nonlinear. An introduction to SVR is given at first, then uses it to identify Absorption Stabilization System (ASS) process variable. Systematic analysis and case studies are performed and indicate that the proposed method provides satisfactory performance with excellent approximation and generalization property, Simulations show that soft sensor technique based on SVR achieves superior performance to the conventional method based on neural networks.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, HR, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

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Publisher Name: INT ACAD PUBL BEIJING WORLD PUBL CORP

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Subject Category: Engineering, Electrical & Electronic; Instruments & Instrumentation

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Record 97 of 101

Author(s): Zhang, HR; Wang, XD; Zhang, CJ; Xu, XL

Title: Using support vector machine to estimate linear systems model's parameters

Editor(s): Qi, JM; Cui, JP

Source: ICEMI 2005: CONFERENCE PROCEEDINGS OF THE SEVENTH INTERNATIONAL CONFERENCE ON ELECTRONIC MEASUREMENT & INSTRUMENTS, VOL 3 652-656, 2005

Language: English

Document Type: Article

Conference Title: 7th International Conference on Electronic Measurement and Instruments

Conference Date: AUG 16-18, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE Beijing Sect, Chinese Inst Elect, CNNSF, Elect Measurement & Instruments Soc, CIE, Beijing Jiaotong Univ

Author Keywords: support vector machine; linear model; parameter estimation

Abstract: This paper proposes a general framework for estimating linear systems model's parameters based on support vector machine, firstly uses least square support vector machine to estimate linear model's parameters, and gives a theoretical proof that the parameter estimation based on LS-SVM has small mean square error(MSE) than that of least square method under Gaussian noise, then uses standard support vector machine to estimate linear model's parameters. The simulation results indicate that the SVM method can reduce the effect of outliers and noise for parameter estimating, the performance of SVM method is better than that of LS estimation method.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, HR, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 8

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Source Item Page Count: 5

Subject Category: Engineering, Electrical & Electronic; Instruments & Instrumentation

ISI Document Delivery No.: BDR67

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Record 98 of 101

Author(s): Yu, SB; Zhang, S; Wang, W

Title: A study on expanding Delta t to high precision small phase displacement measure

Editor(s): Qi, JM

Source: ICEMI 2005: CONFERENCE PROCEEDINGS OF THE SEVENTH INTERNATIONAL CONFERENCE ON ELECTRONIC MEASUREMENT & INSTRUMENTS, VOL 1 139-144, 2005

Language: English

Document Type: Article

Conference Title: 7th International Conference on Electronic Measurement and Instruments

Conference Date: AUG 16-18, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE Beijing Sect, Chinese Inst Elect, CNNSF, Elect Measurement & Instruments Soc, CIE, Beijing Jiaotong Univ

Author Keywords: phase measure; high precision; correlation counting; variant dual-slope integration; expanding Delta t to count

Abstract: By analyzing the error principle of frequency measure electronic counter, the author presents a new method of high precision small phase displacement measure with general IC devices: expands Delta t to count based on Variant Dual-slope Integration. The research shows that the new method overcame the shortcoming of low precision of general measure method. The influence of '+/- 1 error' is decreased and the measure accuracy is increased above two orders of magnitude.

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.  
Reprint Address: Yu, SB, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.  
Cited Reference Count: 3  
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Publisher Address: 137 CHAONEI DAJIE, BEIJING 100010, PEOPLES R CHINA  
ISBN: 7-5062-7443-4  
Source Item Page Count: 6  
Subject Category: Engineering, Electrical & Electronic; Instruments & Instrumentation  
ISI Document Delivery No.: BDR64

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Record 99 of 101

Author(s): Zhang, S; Yu, SB; Wang, W

Title: One circuit design of float DSP'S general serial communication interface

Editor(s): Qi, JM

Source: ICEMI 2005: CONFERENCE PROCEEDINGS OF THE SEVENTH INTERNATIONAL CONFERENCE ON ELECTRONIC MEASUREMENT & INSTRUMENTS, VOL 1 672-675, 2005

Language: English

Document Type: Article

Conference Title: 7th International Conference on Electronic Measurement and Instruments

Conference Date: AUG 16-18, 2005

Conference Location: Beijing, PEOPLES R CHINA

Conference Sponsors: IEEE Beijing Sect, Chinese Inst Elect, CNNSF, Elect Measurement & Instruments Soc, CIE, Beijing Jiaotong Univ

Author Keywords: DSP; serial port; general serial communication protocol

Abstract: DSP chip is currently one of the most modern digital signal processing chip. It has not only powerful calculating. ability, but also plenty hardware resources. In this paper, first the character of float DSP TMS320C3X's serial communication is introduced, because it is designed for communication with TMS320's series chips or other special chips, its serial communication protocol is not compatible with the general one. Then, one modified method is introduced, which realized the general serial communication between DSP and others.

Addresses: Zhejiang Normal Univ, Jinhua, 321004 Peoples R China.

Reprint Address: Zhang, S, Zhejiang Normal Univ, Jinhua, 321004 Peoples R China.

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ISBN: 7-5062-7443-4

Source Item Page Count: 4

Subject Category: Engineering, Electrical & Electronic; Instruments & Instrumentation

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Record 100 of 101

Author(s): Chen, ZY; Liang, RH; Tang, L; Zhou, QH

Title: Face animation with eigenface detection and FAP tracker

Source: INTERNATIONAL CONFERENCE ON SYSTEMS, MAN AND CYBERNETICS, VOL 1-4, PROCEEDINGS 2133-2138, 2005

Language: English

Document Type: Article

Conference Title: IEEE International Conference on Systems, Man and Cybernetics

Conference Date: OCT 10-12, 2005

Conference Location: Waikoloa, HI

Conference Sponsors: IEEE Syst, Man & Cybernet Soc

Author Keywords: eigenface; Kalman filte; image crosscorrelation; FAPs

Abstract: An approach for face animation based on FDP definition in MPEG-4 is proposed by integrating Eigenface detection and facial features tracker. Our method only requires simple device---a digital camera and a PC, and our system needs minimal user interaction. First, the algorithm makes full use of the eigenface to detect the position and the size of face the first frame, and facial features of the firstframe are acquired automatically by Plessey corner detector according to FDP in MPEG-4 based on anatomical knowledge and general 3D model. Then feature motion data is obtained from maximizing the cross-correlation and Kalman filter, and 2D facial features motion data is converted to 3D FAPs in MPEG-4 by image normalization and features alignment. Finally face animation is obtained by deformation parameters in FAPs. Experimental results show that the approaches we present can be realized, and the results also show the high prospect of our method.

Addresses: Zhejiang Normal Univ, Informat Sci & Engn Coll, Jinhua, 321004 Peoples R China.

Reprint Address: Chen, ZY, Zhejiang Normal Univ, Informat Sci & Engn Coll, Jinhua, 321004 Peoples R China.

Cited Reference Count: 11

Publisher Name: IEEE

Publisher Address: 345 E 47TH ST, NEW YORK, NY 10017 USA

ISBN: 0-7803-9298-1

Source Item Page Count: 6

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Cybernetics

ISI Document Delivery No.: BDT16

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Record 101 of 101

Author(s): Wang, XD; Zhang, HR; Zhang, CJ; Cai, XS; Wang, J; Wang, JS

Title: Prediction of chaotic time series using LS-SVM with automatic parameter selection

Editor(s): Shen, H; Nakano, K

Source: PDCAT 2005: SIXTH INTERNATIONAL CONFERENCE ON PARALLEL AND DISTRIBUTED COMPUTING, APPLICATIONS AND TECHNOLOGIES, PROCEEDINGS 962-964, 2005

Language: English

Document Type: Article

Conference Title: 6th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT 2005)

Conference Date: DEC 05-08, 2005

Conference Location: Dalian, PEOPLES R CHINA

Conference Sponsors: IEICE Informat & Syst Soc, IEEE Beijing Sect, Dalian Univ Technol, Japan Adv Inst Sci & Technol

Abstract: Least squares support vector machine (LS-SVM) combined with genetic algorithm (GA) is used to predict

chaotic time series. The LS-SVM can overcome some shortcoming in the multilayer perceptron and the GA is used to tune the LS-SVM parameters automatically. A benchmark problem, Henon map time series, has been used as an example for demonstration. It is showed this approach can escape from the blindness of man-made choice of the LS-SVM parameters. It enhances the efficiency and the capability of prediction. Further, the GA is compared with cross-validation method for tuning LS-SVM parameters. The results reveal that the GA can obtain lower prediction errors, than the k-folds cross validation method

Addresses: Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Reprint Address: Wang, XD, Zhejiang Normal Univ, Coll Informat Sci & Engn, Jinhua, 321004 Peoples R China.

Cited Reference Count: 4

Publisher Name: IEEE COMPUTER SOC

Publisher Address: 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA

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Source Item Page Count: 3

Subject Category: Computer Science, Artificial Intelligence; Computer Science, Software Engineering; Computer Science, Theory & Methods; Imaging Science & Photographic Technology

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