Neural Networks
A Balanced Learning CMAC Neural Networks Model and Its Application to Identification p. 1
A Cooperative Evolutionary System for Designing Neural Networks p. 12
A Neural Network Approach to Medical Image Segmentation and Three-Dimensional Reconstruction p. 22
A Neural Network with Finite-Time Convergence for a Class of Variational Inequalities p. 32
A Novel Multi-class Support Vector Machine Based on Fuzzy Theories p. 42
Chaotic Neural Network with Initial Value Reassigned and Its Application p. 51
Chaotic Synchronization of Hindmarsh-Rose Neural Networks Using Special Feedback Function p. 63
A Comparative Study on Improved Fuzzy Support Vector Machines and Levenberg-Marquardt-Based BP Network p. 73
Comparative Study on Input-Expansion-Based Improved General Regression Neural Network and Levenberg-Marquardt BP Network p. 83
Deterministic Convergence of an Online Gradient Method with Momentum p. 94
Fast Kernel Classifier Construction Using Orthogonal Forward Selection to Minimise Leave-One-Out Misclassification Rate p. 106
Gauss-Morlet-Sigmoid Chaotic Neural Networks p. 115
Hidden Markov Models for Recognition Using Artificial Neural Networks p. 126
Improved Principal Component Analysis and Neural Network Ensemble Based Economic Forecasting p. 135
Improving the Combination Module with a Neural Network p. 146
Improving the Intelligent Prediction Model for Macro-economy p. 156
Integrated Structure and Parameter Selection for Eng-genes Neural Models p. 168
Meta-Learning Evolutionary Artificial Neural Networks Using Cellular Configurations: Experimental Works p. 178
Modeling Based on SOFM and the Dynamic [epsilon]-SVM for Fermentation Process p. 194
Neural Network Equalizer p. 204
Novel Delay-Dependent Exponential Stability Analysis for a Class of Delayed Neural Networks p. 216
Orthogonal Relief Algorithm for Feature Selection p. 227
Concept Features Extraction and Text Clustering Analysis of Neural Networks Based on Cognitive Mechanism p. 235
The Learning Algorithm for a Novel Fuzzy Neural Network p. 247
WPSS Communication System Based on CRBF Network Equalizers p. 259
A Big-Neuron Based Expert System p. 268
A Bottom-Up OCR System for Mathematical Formulas Recognition p. 274
A Fast Robust Learning Algorithm for RBF Network Against Outliers p. 280
A Genetic Algorithm for Constructing Wavelet Neural Networks p. 286
A Neural Network Model for Online Handwritten Mathematical Symbol Recognition p. 292
A Novel Boundary Extension Approach for Empirical Mode Decomposition p. 299
Adaptive Controller Based on Wavelets Neural Network for a Class of Nonlinear Systems p. 305
An Algorithm for Fuzzy Pattern Recognition Based on Neural Networks p. 311
An Improved Elman Neural Network with Profit Factors and Its Applications p. 317
Application of Wavelet Network Combined with Nonlinear Dimensionality Reduction on the Neural Dipole Localization p. 323
Artificial Neural Network Methodology for Soil Liquefaction Evaluation Using CPT Values p. 329
Compression of Medical Images by Using Artificial Neural Networks p. 337
Constraint K-Segment Principal Curves p. 345
Control of Chaotic Systems with Uncertainties by Orthogonal Function Neural Network p. 351
Exponential Stability of Interval Neural Networks with Variable Delays p. 357
Exponential Synchronization for a Class of Chaotic Neural Network with Time-Delay p. 364
Fault Tolerant Recognition Method of Handwritten Chinese Characters Based on Double Weights Elliptical Neuron p. 370
Global Exponential Stability of Reaction-Diffusion Neural Networks with Both Variable Time Delays and Unbounded Delay p. 377
Global Exponential Stability of T-S Fuzzy Neural Networks with Time-Varying Delays p. 385
Gradient Descent and Radial Basis Functions p. 391
Improving Adaptive Boosting with k-Cross-Fold Validation p. 397
Neural Network Metalearning for Credit Scoring p. 403
New Results for Global Exponential Stability of Delayed Cohen-Grossberg Neural Networks p. 409
Nonlinear System Identification Based on Delta-Learning Rules p. 416
Optical Sensing, Logic and Computations in Brillouin-Active Fiber Based Neural Network in Smart Structures p. 422
Passivity Analysis for Neuro Identifier with Different Time-Scales p. 428
Power Quality Identification Based on S-transform and RBF Neural Network p. 434
Probability Model of Covering Algorithm (PMCA) p. 440
Robust Control for a Class of Uncertain Neural Networks with Time-Delays on States and Inputs p. 445
Robust Stability in Interval Delayed Neural Networks of Neutral Type p. 451
Segmenting Images of Occluded Humans Using a Probabilistic Neural Network p. 457
Simulation Line Design Using BP Neural Network p. 463
Springback and Geometry Prediction - Neural Networks Applied to the Air Bending Process p. 470
Stability Conditions for Discrete Hopfield Neural Networks with Delay p. 476
Subnet Weight Modification Algorithm for Ensemble p. 482
The Mixture of Neural Networks Adapted to Multilayer Feedforward Architecture p. 488
The Neural Network for Solving Convex Nonlinear Programming Problem p. 494
Evolutionary Computing and Genetic Algorithms
A Hybrid Fuzzy-Genetic Algorithm p. 500
A Hybrid Quantum-Inspired Genetic Algorithm for Multi-objective Scheduling p. 511
An Improved Genetic Algorithm for Cell Placement p. 523
Conflict Detection in Role-Based Access Control Using Multiple-Attractor Cellular Automata  p. 533
Evolutionary Algorithm-Based Background Generation for Robust Object Detection  p. 542
Mechanism Design and Analysis of Genetic Operations in Solving Traveling Salesman Problems  p. 563
MURMOEA: A Pareto Optimality Based Multiobjective Evolutionary Algorithm for Multi-UAV Reconnaissance Problem  p. 574
Research on Autonomous Planning for AUV in Unstructured Environment  p. 586
Research on Reactive Power Optimization Based on Immunity Genetic Algorithm  p. 600
Stereo-Matching Techniques Optimisation Using Evolutionary Algorithms  p. 612
Weighted Fuzzy C-Means Clustering Based on Double Coding Genetic Algorithm  p. 622
A Genetic Algorithm with Age and Sexual Features  p. 634
A New Algorithm of Evolutionary Computation: Bio-Simulated Optimization  p. 641
Application of a Novel Evolutionary Neural Network for Macro-cell Placement Optimization in VLSI Physical Design  p. 649
An Integration Method of Artificial Neural Network and Genetic Algorithm for Structure Design of a Scooter  p. 655
Digital Filter Design Using Evolvable Hardware Chip for Image Enhancement  p. 663
Efficient Sigmoid Function for Neural Networks Based FPGA Design  p. 672
Evolutionary Image Enhancement for Impulsive Noise Reduction  p. 678
Expected Value Model and Algorithm for Network Bottleneck Capacity Expansion Under Fuzzy Environment  p. 684
Face Recognition: An Optimized Localization Approach and Selected PZMI Feature Vector Using SVM Classifier  p. 690
Genetic Algorithm Based Restructuring of Web Applications Using Web Page Relationships and Metrics  p. 697
Genetic Algorithm-Based Clustering and Its New Mutation Operator  p. 703
Genetic Algorithm-Based Watermarking in Discrete Wavelet Transform Domain  p. 709
Genetic Algorithms for Improving Material Utilization in Manufacturing  p. 717
Improved Differential Evolution with Dynamic Population Size  p. 725
Redundant Space Manipulator Optimization Design Based on Genetic Algorithm of Immunity  p. 731
Two Artificial Intelligence Heuristics in Solving Multiple Allocation Hub Maximal Covering Problem  p. 737
Kernel Methods
Kernel Principal Component Analysis for Large Scale Data Set  p. 745
Kernel-Based Reinforcement Learning  p. 757
A Fast Feature Extraction Method for Kernel 2DPCA  p. 767
Least Squares Support Vector Machine Based Partially Linear Model Identification  p. 775
S-transform Based LS-SVM Recognition Method for Identification of PQ Disturbances  p. 782
Combinatorial and Numerical Optimization
A Global Optimization Method Based on Simulated Annealing and Evolutionary Strategy  p. 790
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Hybrid Heuristic for PWB Capacity Expansion Problem</td>
<td>802</td>
</tr>
<tr>
<td>A New Efficient Parallel Revised Relaxation Algorithm</td>
<td>812</td>
</tr>
<tr>
<td>An Improved Simulated Annealing Algorithm for the Maximum Independent Set Problem</td>
<td>822</td>
</tr>
<tr>
<td>Exponential Convergence Flow Control Model for Congestion Control</td>
<td>832</td>
</tr>
<tr>
<td>Feature Extraction and Evolution Based Pattern Recognition</td>
<td>842</td>
</tr>
<tr>
<td>Partner Selection for Renewable Resources in Construction Supply Chain</td>
<td>853</td>
</tr>
<tr>
<td>Time Based Congestion Control (TBCC) for High Speed High Delay Networks</td>
<td>863</td>
</tr>
<tr>
<td>A DEA-Benchmarking Optimization Model and Method Based on the Theory of Maximum Entropy</td>
<td>875</td>
</tr>
<tr>
<td>A Two Step Approach for the Integrated Production and Distribution Planning of a Supply Chain</td>
<td>883</td>
</tr>
<tr>
<td>An Enhanced Heuristic Searching Algorithm for Complicated Constrained Optimization Problems</td>
<td>889</td>
</tr>
<tr>
<td>Further Research on Node Based Bottleneck Improvement Problem for Multicut</td>
<td>895</td>
</tr>
<tr>
<td>Global Optimization Algorithms Using Fourier Smoothing</td>
<td>901</td>
</tr>
<tr>
<td>Heuristics to Convex Quadratic Knapsack Problems in Sorted ADP</td>
<td>907</td>
</tr>
<tr>
<td>Local Optima Properties and Iterated Local Search Algorithm for Optimum Multiuser Detection Problem</td>
<td>913</td>
</tr>
<tr>
<td>Multi-objective Optimal Strategy for Individual Consumption-Investment with Fuzzy Coefficients</td>
<td>919</td>
</tr>
<tr>
<td>On Auxiliary Algorithm for the Simplex Method by H. Luh and R. Tsaih</td>
<td>925</td>
</tr>
<tr>
<td>Fast Discrimination of Juicy Peach Varieties by Vis/NIR Spectroscopy Based on Bayesian-SDA and PCA</td>
<td>931</td>
</tr>
<tr>
<td>Rolling Partial Rescheduling with Efficiency and Stability Based on Local Search Algorithm</td>
<td>937</td>
</tr>
<tr>
<td>Sudoku Solver by Q'tron Neural Networks</td>
<td>943</td>
</tr>
<tr>
<td>Multiobjective Evolutionary Algorithms</td>
<td></td>
</tr>
<tr>
<td>A Simulation-Based Process Evaluation Approach to Enterprise Business Process Intelligence</td>
<td>953</td>
</tr>
<tr>
<td>Multi-objective PSO Algorithm Based on Fitness Sharing and Online Elite Archiving</td>
<td>964</td>
</tr>
<tr>
<td>An Intelligent Algorithm for Modeling and Optimizing Dynamic Supply Chains Complexity</td>
<td>975</td>
</tr>
<tr>
<td>Neural Optimization and Dynamic Programming</td>
<td></td>
</tr>
<tr>
<td>Design of Data Association Filter Using Neural Networks for Multi-Target Tracking</td>
<td>981</td>
</tr>
<tr>
<td>Algorithm Analysis and Application Based on Chaotic Neural Network for Cellular Channel Assignment</td>
<td>991</td>
</tr>
<tr>
<td>A Capacitated Production Planning with Outsourcing; A General Model and Its Algorithm</td>
<td>997</td>
</tr>
<tr>
<td>Case Based Reasoning and Probabilistic Reasoning</td>
<td></td>
</tr>
<tr>
<td>A Case-Based Seat Allocation System for Airline Revenue Management</td>
<td>1003</td>
</tr>
<tr>
<td>Feature-Weighted CBR with Neural Network for Symbolic Features</td>
<td>1012</td>
</tr>
<tr>
<td>Object Detection Using Context-Based Cascade Classifier</td>
<td>1021</td>
</tr>
</tbody>
</table>
Research on a Case-Based Decision Support System for Aircraft Maintenance Review p. 1030
Board Report

Objects Relationship Modeling for Improving Object Detection Using Bayesian Network Integration p. 1040

The Embodiment of Autonomic Computing in the Middleware for Distributed System with Bayesian Networks p. 1047

Special Session on Computational Intelligence Approaches and Methods for Security Engineering

Adaptable Designated Group Signature p. 1053
Performance Analysis of Adaptive Digital FPU Transmission System in Fading Environment p. 1062

A Component for Management System and Ubiquitous Environment p. 1072

A Novel Feature Extraction Approach to Face Recognition Based on Partial Least Square Regression p. 1078

A Novel Feature Fusion Approach Based on Blocking and Its Application in Image Recognition p. 1085

A Social-Intelligence-Inspired Security Integrated Model for Network Information Flow p. 1092

A Study on the Improvement of Military Logistics System Using RFID p. 1098
Performance Improvement of Intelligent UWB-IR Communication System in Multipath Channel p. 1103

A Study on the Performance Improvement of UWB-IR System for Intelligent High Speed Multimedia Service p. 1109

A Vulnerability Assessment Tool Based on OVAL in System Block Model p. 1115

Bark Classification Based on Contourlet Filter Features Using RBPNN p. 1121

Community for Ubiquitous Medical Information System p. 1127

Design and Implementation of a Fast DIO (Digital I/O) and Motion Control System p. 1133

G.711-Based Adaptive Speech Information Hiding Approach p. 1139

Mobile Phone Number Management System Using an X-internet Approach p. 1145

Performance Analysis of Multimedia Communication System with Enhanced STTD Technique for USN p. 1151

U-Logistic Services in Military Using RFID and Mobile Sensor Network p. 1158

Web Based Learning Application for LMS p. 1164

Special Session on Advances in Intelligent Computing with Applications in Multimedia Systems

Application of a Strong Tracking Finite-Difference Extended Kalman Filter to Eye Tracking p. 1170

Fast Affine Transform for Real-Time Machine Vision Applications p. 1180

Multi-modal Feature Integration for Secure Authentication p. 1191

Three-View Shape Recovery and Incremental Registration of 3D Point Sets p. 1201

An Efficient Arbitrary View Generation Method Using Panoramic-Based Image Morphing p. 1207

Audio Content Analysis for Understanding Structures of Scene in Video p. 1213

Independent Components Analysis for Representation Interest Point Descriptors p. 1219

New Color Correction Approach to Multi-view Images with Region Correspondence p. 1224