<<   >>

<<   >>

13   ISBN   9787562523031

10   ISBN   7562523037

          2008-11

                                              (2008-11   )

     370

                          PDF

              http://www.tushu007.com

The 3rd International Symposium on Intelligence Computation and Applications (ISICA 2008) will be held in the China University of Geosciences (Wuhan), Wuhan, China, on December 19-21, 2008 and followed the tradition already established by the last two ISICA conferences were held in Wuhan in 2005 and 2007. A major goal of ISICA is to bring together expers on intelligent computation from around the world, and to provide a leading international forum for the dissemination of original research results in intelligence computation, real-world application, algorithms, software and systems, and different applied disciplines with potential in intelligence computation. ISICA conferences are one of the first series of international conferences on computational intelligence that combines elements of learning, adaptation, evolution and fuzzy logic to create programs as alternative solutions to artificial intelligence. The proceedings of ISICA conferences have a number of unique features including uniqueness, newness, successfulness, and broadness. The proceedings of ISICA conferences have been accepted into the Index to Scientific and Technical Proceedings (ISTP), while ISICA 2007 proceedings published by Springer have also been indexed by Engineering Information (EI).Following the success of ISICA 2005 and ISICA 2007, ISICA 2008 made good progress on analyzing and processing massive real-time data by computational intelligence. ISICA 2008 featured the most up-to-date research in computational intelligence, evolutionary computation, evolutionary multi-objective and dynamic optimization, evolutionary learning systems, neural networks, classification and recognition, bioinformatics and bioengineering, evolutionary data mining and knowledge discovery, intelligent GIS and control, theory of intelligent computation, combinational and numerical optimization, and real-world applications. ISICA 2008 provided a venue to foster technicalexchanges, renew everlasting friendships, and establish newconnections.

The 3rd International Symposium on Intelligence Computation and Applications ISICA 2008 will be held in the China University of Geosciences Wuhan Wuhan China on December 19-21 2008 and followed the tradition already established by the last two ISICA conferences were held in Wuhan in 2005 and 2007. A major goal of ISICA is to bring together expers on intelligent computation from around the world and to provide a leading international forum for the dissemination of original research results in intelligence computation real-world application algorithms software and systems and different applied disciplines with potential in intelligence computation. ISICA conferences are one of the first series of international conferences on computational intelligence that combines elements of learning adaptation evolution and fuzzy logic to create programs as alternative solutions to artificial intelligence. The proceedings of ISICA conferences have a number of unique features including uniqueness newness successfulness and broadness. The proceedings of ISICA conferences have been accepted into the Index to Scientific and Technical Proceedings ISTP while ISICA 2007 proceedings published by Springer have also been indexed by Engineering Information EI .

Section 1: Evolutionary ComputationApplication of 2D Entropic Segmentation Method Based on Particle Swarm Optimization AlgorithmA Hybrid Algorithm Based on Evolution Algorithm and Shooting Method for Solving the Interplanetary Transfer Orbit in Multibody SystemResearch of PSO Parameters Based on Multi-Task Scheduling ProblemExploration of Shortest Path Problem Based on Genetic AlgorithmStudy on Application of Improved Genetic Algorithm in Bus DispatchingOptimization of LEO Regional Coverage Satellite Constellation Via IBEA AlgorithmDesign of Placement Algorithm with Fault-Tolerance Based on Dynamic Evolvement Arithmetic for Coarse-Grain Reconfigurable ArchitectureA Balancing Chemical Equation Approach with Evolution StrategyDetection of Weak Signal Via Bistable Stochastic Resonance Combining with Genetic AlgorithmA Hybrid Genetic Algorithm for Well Placement OptimizationThe Application of Improved Vector Evaluated Genetic Algorithm in Earth-Mars Orbit OptimizationSection 2: Evolutionary Multi-Objective and Dynamic OptimizationOptimization for Multi-Join Queries of Relation Database Based on Ant Colony AlgorithmThe Optimized Path Tracking Control of Mobile Robots Based on Adaptive Sliding ModeApplication of Topology Optimization Techniques to Frame Design of One Electrical TractorAn Improved Regularity Model-Based Multi-Objective Estimation of Distribution AlgorithmImplement Tree-Based Genetic Operators in GEPBased on Air Quality Prediction Study of Genetic Neural NetworkSection 3: Neural NetworksResearch on Neural Network Training Algorithm Based on PSO-Genetic AlgorithmAn Application of BP Neural Networks Based on Adaptive Genetic Algorithm for Load Balancing in VOD ClusterApplied Research of On-Line Handwriting Signature Verification in Electronic Document SecurityBased on the PCA of Genetic Neural Network Prediction of Stock IndexConcrete Structure Integrity Appraisal Research Based on Infrared Image FormationResearch on the Application of Reduction Factor Method of Shear Strength for the Soil Nailing Wall in Deep Foundation PitSection 4: Classification and RecognitionAn Outlier Detection Algorithm for Data Streams Based on Fuzzy ClusteringLogic-Based Linguistic Models with the Use of Fuzzy GranulationModeling and Fuzzy PID Controller Design for Pressure Control of Hydraulic SystemVehicle Target Tracking Method on FPDSAn Improved Genetic K-Means Algorithm for Spatial ClusteringSub-Pixel Quantization by Applying Iterative Error Analysis Algorithm to Hyperion Data: Case Study of Northwest of Yun-Nan, ChinaThe Research and Implementation of Spam E-mail Filtering Based on Improved Bayesian AlgorithmFace Feature Extraction Based on Maximum Discriminant Information ProjectionImage Retrieval Based on Texture in DCT Compressed DomainFace Recognition Based on Generalized Kernel Fisher Discriminant Vectors and BP Network ClassifierSimple Support Vector Machine with Invariance FeaturesAn Improved Spectroface Algorithm Based on Cubic B-Spline Wavelet Transform and Multiple Subbands FusionResearch on SVM-Based Automatic Classification of Chinese Web PageSection 5: Bioinformatics and BioengineeringA Sequence Alignment Algorithm Based on the Ant Colony Optimization Genetic AlgorithmA New Parallel Ant Colony Optimization Algorithm for Traveling Salesman ProblemAn Improved Ant Colony Optimization Algorithm for Anycast Routing with QoS ConstraintsA Trust-Based Access Control Model in P2P Networks Using Ant Colony OptimizationClassifying EEG for Brain-Computer Interface Using Spatio-Temporal FiltersMulti-Join Query Optimization in Distributed Database Based on Genetic AlgorithmImage Matching Algorithm SummarySection 6: Evolutionary Data Mining and Knowledge DiscoveryResearch on Classification of Data Mining Based Niche Genetic AlgorithmResearch on Ensemble Multi-Instance LearningResearch on New Methods of Resource Equilibrium Optimization Based on Particle SwarmApplication of a Novel GEP in Function FindingReview of Segmenting Algorithms for Streaming Time SeriesAn Empirical Study on Regression AlgorithmsAn Incremental Algorithm Based on Discernibility Matrix for Reducts of Incomplete Decision TablesAn Intelligent Model to Assist Medical Diagnosis Based on Tolerant Rough SetsExtraction of Meta-Rules for RFID Mining Based on a Concept HierarchyImproving SVM for Learning Multi-Class Domains with Pareto Multi-Objective OptimizationSection 7: Intelligent GIS and ControlA Hybrid Evolutionary Algorithm to Solve Function OptimizationResearch on BLDCM DTC with Simplified StructureApplication of Self-Adapt Fuzzy Control System in High-Speed LocomotiveAnalysis, Evaluation and

Control of Wheel-Legged Robot's Tumble StabilityAverage Consensus in Networks of Multi-Agents with Both Markovian Jump Topology and Coupling Time-DelayResearch on Steady Distribution and Transient Distribution of Discrete Event System Based on Markov ModelA CA-Based Simulation Approach for Analyzing Urban Growth Management StrategiesAn Improved Genetic-Fuzzy Algorithm and Its Application in Short-Term Load ForecastingResearch of E-Government Service Model Based on Spatial Information WorkflowEvaluation of Regional Ecological Risk of Land Use Landscape Pattern Based on GIS and RSSection 8: Theory of Intelligent ComputationOptimized Research of Depth-First Search in the Eight Queens ProblemResearches on Detecting Driving Fatigue Based on Eye FeaturesImprovement of Hybrid Intelligent Algorithm and Application in Fuzzy ProgrammingResearch and Analysis of Particle Swarm Optimization AlgorithmRandom Walk for Image Segmentation or Pothole on Asphalt RoadSection 9: Combinational and Numerical OptimizationSection 10: Real-World Applications

Abstract——The multiform earthsurfaces in Northwest of Yun-nan, which has complex condition of climate and geology, can not be accurately classified and identified by traditional multispectral image due to its resolution limitation in spectral and space, especially under the condition that precise geological survey, training set and rule base building are insufficient or absent. Hyperspectral image with plenty of continuous spectral information can overcome the limitation. In this paper the Hyperion image, a sort of hyperspectral image, makes good use of abundant correlatively spectral information and makes it possible to classify and efficiently distinguish the sub-pixel of earth surface in Northwest of Yun-nan. In order to extract sub-pixels automatically without any experiential knowledge, the article applies Iterative Error Analysis algorithm to hyperspectral image to obtain various sub-pixels' spectral information in northwest of Yun-nan that can not easily be distinguished generally, such as road, jokul, sandstone etc. In the experiment, a series of preprocessing to the Hyperion image is firstly implemented and the sub-pixels are then extracted by iterative error analysis algorithm. Finally fractional abundance maps of mixed pixels are calculated and sub-pixels are quantified. Through our implementation, the purpose of quantization and identification of sub-pixels and unmixing of pixels in northwest of Yun-nan is achieved without any experiential knowledge. The paper illuminates that using iterative error analysis algorithm, the sub-pixel of complicated northwest of Yun-nan's earth surface can be effective classified and identified unsupervisely with Hyperion data, and the experiment provides an ideal and practical method to detect sub-pixel automatically in the absence of experimental data.

( )

PDF

:http://www.tushu007.com