. Record Nr.	UNISA996465951103316
Titolo	Neural Information Processing [[electronic resource]]: 18th International Conference, ICONIP 2ß11, Shanghai, China, November 13-17, 2011, Proceedings, Part II // edited by Bao-Liang Lu, Liqing Zhang, James Kwok
Pubbl/distr/stampa	Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer,, 2011
ISBN	3-642-24958-2
Edizione	[1st ed. 2011.]
Descrizione fisica	1 online resource (XXII, 778 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 7063
Disciplina	006.32
Soggetti	Computer science
	Artificial intelligence
	Pattern recognition systems
	Data mining Computer simulation
	Computer vision
	Theory of Computation
	Artificial Intelligence
	Automated Pattern Recognition
	Data Mining and Knowledge Discovery
	Computer Modelling
	Computer Vision
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro Title Preface ICONIP 2011 Organization Table of Contents Cybersecurity and Data Mining Workshop Agent Personalized Call Center Traffic Prediction and Call Distribution Introduction Call Center Management Review of Call-Center IT Solutions Existing Call Prediction Methods Proposed Call Prediction Method Experiments and Discussion Conclusions References Mapping from Student Domain into Website Category Introduction The Data The Concepts The Matching

1.

Discussion and Future Work -- References -- Entropy Based Discriminators for P2P Teletraffic Characterization -- Introduction --Related Work on P2P Network Characterization -- Network Level Tracing -- Application Level Tracing -- Hybrid Virtualization Based Approach -- Data Analysis -- Host-Level Analysis -- Discriminators --Learning Methodology -- Experiments -- Experiment Settings --Analysis on Time Window Size -- Analysis on Sampling Rate --Conclusion -- References -- Faster Log Analysis and Integration of Security Incidents Using Knuth-Bendix Completion -- Introduction --Mechanized Reasoning -- Resolution -- Set of Support Strategy --Hyperresolution -- Subsumption -- Knuth-Bendix Completion --Experiment I -- Internet Explorer Aurora Attack: MS979352 -- FTP Server Attack -- Results -- Experiment II -- Malware Log Analysis --Results of Integration -- Discussion -- Conclusion -- References --Fast Protocol Recognition by Network Packet Inspection -- Introduction -- Background and Relate Work -- Motivation -- Proposed Method --Evaluation Result -- Conclusion -- References -- Network Flow Classification Based on the Rhythm of Packets -- Introduction --Motivation and Related Work -- Packet-Level Feature and Bayesian Networks -- Network Flow Rhythm -- Attributions Selection and Attributions Correlation.

Bayesian Networks Parameters Estimation -- Our Bayesian Network Structure -- Experiment Setup -- Data Set -- Data Pre-processing --Result and Analysis -- Conclusion -- References -- Data Mining and Knowledge Discovery -- Energy-Based Feature Selection and Its Ensemble Version -- Introduction -- Energy-Based Framework for Feature Ranking -- Energy-Based Learning -- Framework for Feature Ranking -- Feature Ranking Algorithm -- Evaluation Function --Algorithm Analysis -- Ensemble Feature Selection -- Components of Ensemble Feature Selection -- Stability Estimation -- Experiments --Experimental Results for Single Feature Selection -- Experimental Results for Ensemble Feature Selection -- Conclusions -- References --The Rough Set-Based Algorithm for Two Steps -- Introduction --Literature Review and Problem Statement -- Rough Set-Based Algorithm for Two-Step -- Illustrative Example -- Conclusion --References -- An Infinite Mixture of Inverted Dirichlet Distributions --Introduction -- The Infinite Model -- The Finite Inverted Dirichlet Mixture Model -- The Infinite Inverted Dirichlet Mixture Model -- Priors and Conditional Posteriors -- Experimental Results -- Conclusion --References -- Multi-Label Weighted k-Nearest Neighbor Classifier with Adaptive Weight Estimation -- Introduction -- A Novel Multi-Label Weighted k-Nearest Neighbor Algorithm -- Traditional Multi-class Weighted kNN Method -- Multi-Label Weighted kNN Method Based on Bayesian Theorem -- Adaptive Weight Estimation Method --Experiments -- Five Evaluation Measures and Two Data Sets -- Tuning k Value for Four kNN-Based Classifiers -- Comparison Study on Two Test Data Sets -- Conclusions -- References -- Emotiono: An Ontology with Rule-Based Reasoning for Emotion Recognition -- Introduction --'Emotiono' Ontology Construction -- Affective Model Applied in the 'Emotiono' Ontology.

The Structure of the 'Emotiono' Ontology -- Data Processing Method -- Data Collection -- Data Preprocessing and EEG Features -- Rule-Based Reasoning -- The Reason of Generating Rules by C4.5 -- Emotion Recognition Rules -- Reasoning Results -- Conclusions and Future Work -- References -- Parallel Rough Set: Dimensionality Reduction and Feature Discovery of Multi-dimensional Data in Visualization -- Introduction -- Rough Set Theory Background -- Classic Rough Set -- Variable Precision Rough Set -- Parallel Rough Set System --

Dimensionality Reduction via VPRS -- Feature Discovery via Rule Induction -- Dimension Reorder to Enhance Visual Structure -- Case Studies Using PRS -- Comparison with Dimensionality Reduction Techniques -- Conclusion -- References -- Feature Extraction via Balanced Average Neighborhood Margin Maximization -- Introduction -- Average Neighborhood Margin Maximization -- Balanced Average Neighborhood Margin Maximization -- Side Information -- BANMM --Experimental Results -- Conclusion -- References -- The Relationship between the Newborn Rats' Hypoxic-Ischemic Brain Damage and Heart Beat Interval Information -- Background -- Experiments -- Data Collection -- Data Analyzing -- Multiple Linear Regression Analysis --Successive Multiple Linear Regression Analysis -- Results --Conclusions -- References -- A Robust Approach for Multivariate Binary Vectors Clustering and Feature Selection -- Introduction -- A Model for Simultaneous Clustering, Feature Selection and Outliers Rejection -- The Model -- Model Learning -- Experimental Results --Handwritten Digit Recognition -- Visual Scenes Categorization --Conclusion -- References -- The Self-Organizing Map Tree (SOMT) for Nonlinear Data Causality Prediction -- Introduction -- Background --Nonlinear Data Relationship Analysis Using SOM -- Nonlinear Data Prediction Analysis Using BPN. Issues of Nonlinear Data Prediction Process -- The Self-Organizing Map Tree (SOMT) -- Structure of the SOMT and the Prediction Processes --Weight Vector Linking Method for the Prediction Processes --Experimental Results and Discussion -- Conclusion -- References --Document Classification on Relevance: A Study on Eye Gaze Patterns for Reading -- Introduction -- Eye Gaze for Reading -- The Experiment --Experiment Design -- Experimental Setup -- Participants -- Analysis and Results -- Gaze Points to Fixations -- Scoring the Participants --Statistical Analysis -- Further Analysis by ANN -- Discussion --References -- Multi-Task Low-Rank Metric Learning Based on Common Subspace -- Introduction -- Multi-Task Low-Rank Metric Learning --Notation and Problem Definition -- Multi-Task Framework for Low-Rank Metric Learning -- Optimization -- Special Case -- Experiments -- Illustration on Synthetic Data -- Experiment on Real Data --Conclusion -- References -- Reservoir-Based Evolving Spiking Neural Network for Spatio-temporal Pattern Recognition -- Introduction --Spatio-temporal Pattern Recognition with reSNN -- Reservoir --Experiments -- Data Set -- Setup -- Results -- Parameter and Feature Optimization of reSNN -- Conclusion and Future Directions --References -- An Adaptive Approach to Chinese Semantic Advertising -- Introduction -- Related Work -- Chinese Semantic Advertising

Government Rule Classification.

Triple Creation -- RDF Generation -- Evaluation -- Experiment Setup
-- Results -- Conclusion and Future Work -- References -- Relative
Association Rules Based on Rough Set Theory -- Introduction -Literature Review and Problem Statement -- Incorporation of Rough Set
for Classification Processing -- Conclusion and Future Works -References -- Scalable Data Clustering: A Sammon's Projection Based
Technique for Merging GSOMs -- Introduction -- Background -- SelfOrganizing Map -- Growing Self-Organizing Map -- Sammon's

Architecture -- Preprocessing Chinese Web Pages and Advertisements -- The Ontology -- Extracting Related Phrases for Ontology -- The Distance Function -- Evaluation -- Experiment Setup -- Experiment Results -- Conclusion and Future Work -- Reference -- A Lightweight Ontology Learning Method for Chinese Government Documents -- Introduction -- Related Work -- Ontology Learning for Chinese Government Documents -- Preprocess -- Term Extraction --

Projection -- The Parallel GSOM Algorithm -- Data Partitioning --Parallel GSOM Training -- Merging Process -- Refining Process --Results -- Accuracy -- Performance -- Discussion -- References -- A Generalized Subspace Projection Approach for Sparse Representation Classification -- Introduction -- Sparse Representation Classification -- Subspace Projection for Sparse Representation Classification --Subspace of Each Class -- Maximal Linearly Independent Set of Each Class -- Experiments -- Parameters Setting -- Experimental Results --Conclusion and Future Work -- References -- Evolutionary Design and Optimisation -- Macro Features Based Text Categorization --Introduction -- Macro Feature Extraction -- Clustering Based Method MFCI -- Centroid Based Method MFCe -- Databases and Experimental Setting -- Databases -- Experimental Setting -- Experimental Results -- Performance Comparison of Different Methods -- Effectiveness of Labeled Data in MFCI -- Effectiveness of Labeled Data in MFCe --Comparison of MFCI and MFCe -- Conclusion -- References --Univariate Marginal Distribution Algorithm in Combination with Extremal Optimization (EO, GEO) -- Introduction -- Univariate Marginal Distribution Algorithm -- Extremal Optimization Algorithm --Suggested Algorithm -- Experiments and Results -- Graph Bipartitioning Problem. Multiprocessor Scheduling Problems.

Sommario/riassunto

The three volume set LNCS 7062, LNCS 7063, and LNCS 7064 constitutes the proceedings of the 18th International Conference on Neural Information Processing, ICONIP 2011, held in Shanghai, China, in November 2011. The 262 regular session papers presented were carefully reviewed and selected from numerous submissions. The papers of part I are organized in topical sections on perception. emotion and development, bioinformatics, biologically inspired vision and recognition, bio-medical data analysis, brain signal processing, brain-computer interfaces, brain-like systems, brain-realistic models for learning, memory and embodied cognition, Clifford algebraic neural networks, combining multiple learners, computational advances in bioinformatics, and computational-intelligent human computer interaction. The second volume is structured in topical sections on cybersecurity and data mining workshop, data mining and knowledge doscovery, evolutionary design and optimisation, graphical models, human-originated data analysis and implementation, information retrieval, integrating multiple nature-inspired approaches, Kernel methods and support vector machines, and learning and memory. The third volume contains all the contributions connected with multi-agent systems, natural language processing and intelligent Web information processing, neural encoding and decoding, neural network models. neuromorphic hardware and implementations, object recognition, visual perception modelling, and advances in computational intelligence methods based pattern recognition.