

1. Record Nr.	UNINA9910255012403321
Titolo	Intelligent Information Processing VIII : 9th IFIP TC 12 International Conference, IIP 2016, Melbourne, VIC, Australia, November 18-21, 2016, Proceedings / / edited by Zhongzhi Shi, Sunil Vadhera, Gang Li
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-48390-0
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVII, 278 p. 87 illus.)
Collana	IFIP Advances in Information and Communication Technology, , 1868-4238 ; ; 486
Disciplina	006.3
Soggetti	Artificial intelligence Data mining Information storage and retrieval Pattern recognition Natural language processing (Computer science) Artificial Intelligence Data Mining and Knowledge Discovery Information Storage and Retrieval Pattern Recognition Natural Language Processing (NLP)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Organization -- Keynote and Invited Presentations (Abstracts) -- Automated Reasoning and Cognitive Computing -- An Elastic, On-demand, Data Supply Chain for Human Centred Information Dominance -- Why Is My Entity Typical or Special? Approaches for Inlying and Outlying Aspects Mining -- Advanced Reasoning Services for Description Logic Ontologies -- Brain-Like Computing -- Contents -- Machine Learning -- An Attribute-Value Block Based Method of Acquiring Minimum Rule Sets: A Granulation Method to Construct Classifier -- Abstract -- 1 Introduction -- 2 Preliminaries -- 2.1 Decision Systems and Relative Reducts -- 2.2 Decision Logic and Attribute-Value Blocks -- 3 Minimum Rule Sets -- 4 Methods of

Acquiring Decision Rules -- 4.1 Rule Reduction -- 4.2 Minimum of Decision Rule Sets -- 4.3 An Algorithm for Acquiring Minimum Rule Sets -- 5 Experiment Analysis -- 6 Conclusion -- Acknowledgements -- References -- Collective Interpretation and Potential Joint Information Maximization -- 1 Introduction -- 2 Theory and Computational Methods -- 2.1 Concept of Joint Information Maximization -- 2.2 Potential Joint Information Maximization -- 2.3 Computing Pseudo-Potential Joint Information Maximization -- 3 Results and Discussion -- 3.1 Experimental Outline -- 3.2 Mutual Information -- 3.3 Connection Weights -- 3.4 Generalization Performance -- 4 Conclusion -- References -- A Novel Locally Multiple Kernel k-means Based on Similarity -- Abstract -- 1 Introduction -- 2 Related Work -- 2.1 Kernel K-Means -- 2.2 Multiple Kernel k-means -- 3 Locally Multiple Kernel k-means -- 3.1 Similarity Measure -- 3.2 Algorithm -- 4 Experiments -- 4.1 Artificial Data Clustering -- 4.2 Clustering Results -- 5 Conclusions -- Acknowledgements -- References -- Direction-of-Arrival Estimation for CS-MIMO Radar Using Subspace Sparse Bayesian Learning -- Abstract.

1 Introduction -- 2 Signal Model -- 3 Environment Awareness -- 4 Simulation Results -- 5 Conclusions -- References -- Data Mining -- Application of Manifold Learning to Machinery Fault Diagnosis -- 1 Introduction -- 2 The principle of SMCE -- 3 The Method of Feature Extraction Based on SMCE -- 4 Experiment -- 5 Conclusion -- References -- p-Spectral Clustering Based on Neighborhood Attribute Granulation -- Abstract -- 1 Introduction -- 2 p-Spectral Clustering -- 3 Neighborhood Attribute Granulation -- 4 p-Spectral Clustering Based on Neighborhood Attribute Granulation -- 5 Experimental Analysis -- 6 Conclusions -- Acknowledgements -- References -- Assembly Sequence Planning Based on Hybrid Artificial Bee Colony Algorithm -- Abstract -- 1 Introduction -- 2 Optimization Model of Assembly Sequences -- 2.1 Geometric Feasibility -- 2.2 Assembly Stability -- 2.3 The Number of Parts Violating Local Assembly Precedence -- 2.4 Changes of Assembly Directions, Tools And connections -- 2.5 Fitness Function -- 3 Assembly Sequences of HABC -- 3.1 Nectar Source Code -- 3.2 Initial Nectar Source -- 3.3 Employed Bee Phase -- 3.4 Onlooker Bee Phase -- 3.5 Scout Bee Phase -- 3.6 A Local Search Algorithm -- 3.7 Computational Procedure of the HABC Algorithm -- 4 Experimental Results and Analysis -- 4.1 Simulation Example -- 4.2 The Comparison Between Algorithms -- 5 Conclusions and Future Work -- Acknowledgments -- References -- A Novel Track Initiation Method Based on Prior Motion Information and Hough Transform -- Abstract -- 1 Introduction -- 2 Review of Current Techniques -- 3 Our Approach -- 4 Simulation and Results -- 5 Conclusions -- Acknowledgements -- References -- Deep Learning -- A Hybrid Architecture Based on CNN for Image Semantic Annotation -- Abstract -- 1 Introduction -- 2 CNN Visual Feature Extraction.

2.1 Extracting Visual Features from Pre-trained CNN Model -- 2.2 Exacting Visual Feature from Fine-Tuned CNN Model -- 3 Ensembles of Classification Classifiers for Semantic Learning -- 4 Hybrid Framework for Image Annotation -- 5 Experiments and Results -- 5.1 Datasets and Evaluation Measures -- 5.2 Results for Image Annotation on Corel5 K -- 5.3 Result Analysis -- 6 Conclusion -- Acknowledgement -- References -- Convolutional Neural Networks Optimized by Logistic Regression Model -- Abstract -- 1 Introduction -- 2 Structure of Convolutional Neural Network -- 3 Classifier Model Based on Logistic Regression -- 3.1 Logistic Regression Model -- 3.2 Softmax Regression Model -- 3.3 Back Propagation -- 4 Experiment and Result Analysis -- 5 Conclusions -- Acknowledgments -- References -- Event Detection

with Convolutional Neural Networks for Forensic Investigation -- Abstract -- 1 Introduction -- 2 Preliminary -- 2.1 Related Work -- 2.2 Challenges Posed by Textual Evidence -- 3 Model Description -- 3.1 Basic CNN -- 3.2 CSV-CNN -- 4 Experiments -- 4.1 Datasets -- 4.2 The Performance and Analysis -- 5 Conclusions -- References -- Boltzmann Machine and its Applications in Image Recognition -- Abstract -- 1 Introduction -- 2 Restricted Boltzmann Machine and Semi-restricted Boltzmann Machine -- 2.1 Restricted Boltzmann Machine Models -- 2.2 Spike-and-Slab Restricted Boltzmann Machine -- 3 The Training Algorithms About RBM and Boltzmann Machine -- 3.1 Mean Field Method -- 3.2 Persistent Markov Chain -- 4 Deep Belief Networks and Deep Boltzmann Machine -- 4.1 Deep Belief Networks -- 4.2 Deep Boltzmann Machine -- 5 Weight Uncertainty Spike-and-Slab Restricted Boltzmann Machine -- 5.1 Weight Uncertainty Method -- 5.2 Weight Uncertainty Spike-and-Slab Deep Boltzmann Machine -- 6 Experimental Analysis -- 7 Conclusion -- Acknowledgements -- References.

Social Computing -- Trajectory Pattern Identification and Anomaly Detection of Pedestrian Flows Based on Visual Clustering -- 1 Introduction -- 2 Related Work -- 3 Problem Statement -- 4 Case Study - Edinburgh Pedestrian Flow -- 5 Summarizing Related Flows -- 5.1 Synthetic Cases -- 5.2 Case of Real Trajectory Data -- 6 Identifying Time Periods with Similar Flows -- 6.1 Comparing Flow Patterns -- 6.2 Identifying Similar Time Periods -- 7 Identifying Anomalous Flow Patterns -- 8 Conclusions and Future Work -- References --

Anomalous Behavior Detection in Crowded Scenes Using Clustering and Spatio-Temporal Features -- Abstract -- 1 Introduction -- 2 Related Work -- 3 The Proposed Approach -- 3.1 Image Preprocessing and Object Detection -- 3.2 Tracking -- 3.3 Feature Extraction and Representation -- 3.4 Clustering Based Anomaly Detection -- 4 Results and Discussion -- 4.1 Object Detection Performance -- 4.2 Accuracy Analysis -- 5 Conclusion -- Acknowledgements -- References -- An Improved Genetic-Based Link Clustering for Overlapping Community Detection -- Abstract -- 1 Introduction -- 2 Related Work -- 2.1 Objective Function -- 2.2 Objective Function -- 2.3 Genetic Operation -- 3 An Improved Genetic-Based Link Clustering for Overlapping Community Detection -- 3.1 Community Similarity -- 3.2 Belonging Coefficients -- 4 Experiments -- 4.1 Experimental Data Sets -- 4.2 Evaluation Criteria -- 4.3 Experimental Results -- 5 Conclusion -- References -- Opinion Targets Identification Based on Kernel Sentences Extraction and Candidates Selection -- Abstract -- 1 Introduction -- 2 Related Work -- 3 Kernel Sentence Extraction -- 4 Candidate Opinion Targets Identification and Selection -- 5 Experiments and Analysis -- 6 Conclusions and Future Work -- References -- Semantic Web and Text Processing.

A Study of URI Spotting for Question Answering over Linked Data (QALD) -- Abstract -- 1 Introduction -- 2 URI Spotting for QALD -- 2.1 Spotting -- 2.2 Candidate Extension -- 2.3 URI Selection -- 3 Conclusion and Future Work -- Acknowledgements -- References -- Short Text Feature Extension Based on Improved Frequent Term Sets -- Abstract -- 1 Introduction -- 2 Frequent Term Sets Extraction -- 3 Word Similarity Matrix Construction -- 3.1 Improved Term Weighing Scheme -- 3.2 Word Similarity Calculation -- 4 Short Text Feature Extension Based on Semantic Similarity Matrix -- 5 Experiments -- 5.1 Data Set -- 5.2 Experiment Results -- 6 Conclusion -- Acknowledgement -- References -- Research on Domain Ontology Generation Based on Semantic Web -- Abstract -- 1 Introduction -- 2 Semantic Web and Ontology -- 2.1 What Is Semantic Web -- 2.2 What

Is Ontology -- 3 Extraction Domain Concepts -- 3.1 Corpus  
Preprocessing -- 3.2 Algorithm of Extracting Domain Concepts -- 4  
Acquisition of Classification Relationship -- 5 Ontology Construction  
-- 6 Conclusion -- References -- Towards Discovering Covert  
Communication Through Email Spam -- Abstract -- 1 Introduction -- 2  
Email Spam Characteristics -- 2.1 Email Spam Characteristics -- 2.2  
Covert Communication Methods -- 3 Methodology -- 3.1 TF-IDF --  
3.2 Latent Dirichlet Allocation -- 3.3 Text Visualization Techniques --  
3.4 Our Method -- 4 Experiments -- 4.1 Dataset Description -- 4.2  
Extracting URL Links -- 4.3 Identifying Clues by LDA -- 4.4 Text  
Visualization -- 5 Conclusions -- References -- Image Understanding  
-- Combining Statistical Information and Semantic Similarity for Short  
Text Feature Extension -- Abstract -- 1 Introduction -- 2 Preliminary  
Knowledge -- 3 Feature Extension Algorithm and Weight Computing --  
4 Experiment Results and Analysis -- 5 Conclusion --  
Acknowledgments -- References.  
Automatic Image Annotation Based on Semi-supervised Probabilistic  
CCA.

---

Sommario/riassunto

This book constitutes the refereed proceedings of the 9th IFIP TC 12 International Conference on Intelligent Information Processing, IIP 2016, held in Melbourne, VIC, Australia, in October 2016. The 24 full papers and 3 short papers presented were carefully reviewed and selected from more than 40 submissions. They are organized in topical sections on machine learning, data mining, deep learning, social computing, semantic web and text processing, image understanding, and brain-machine collaboration.

---