

2017 10th International Symposium on Computational Intelligence and Design (ISCID 2017)

**Hangzhou, China
9-10 December 2017**

**Volume 1
Pages 1-524**



**IEEE Catalog Number: CFP1760E-POD
ISBN: 978-1-5386-3676-3**

**Copyright © 2017 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP1760E-POD
ISBN (Print-On-Demand):	978-1-5386-3676-3
ISBN (Online):	978-1-5386-3675-6
ISSN:	2165-1707

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

2017 10th International Symposium on Computational Intelligence and Design

ISCID 2017

Table of Contents Volume - 1

Preface - Volume 1.....	xiii
Organizing Committee - Volume 1.....	xiv
Program Committee - Volume 1.....	xv
Reviewers - Volume 1.....	xvii

Volume 1

Improvement Research on the Project Loan Evaluation of Commercial Bank Based on the Risk Analysis	3
<i>Yu-Fang Shi and Ping-Ping Song</i>	
Similarity Based Matrix Factorization for Recommender Systems	7
<i>Gen Zhang and Xu Zhou</i>	
Study on Surface Characteristics of Shearing Marks Based on Correlation Dimension	12
<i>Bingcheng Wang and Chang Jing</i>	
Information Capacity of a Neural Network with Redundant Connections Between Neurons	16
<i>Andrey V. Zakharov</i>	
Sensorless Control of Permanent Magnet Synchronous Motor Based on Model Reference Adaptive System	20
<i>Yan Xing, Xu Wang, Dan Yang, and Zhi-Mei Zhang</i>	
Study on the Fluorescence Characteristic of Phenanthrenes and Anthracenes in Soil Based on Two-Dimensional Correlation Fluorescence Spectroscopy	24
<i>Yang Renjie, Yang Yanrong, Dong Guimei, Zhu Wenbi, and Liu Haixue</i>	
Research on the Classification and Identification of Driver's Driving Style	28
<i>Bohua Sun, Weiwen Deng, Jian Wu, Yaxin Li, Bing Zhu, and Liguang Wu</i>	

Cryptanalysis and Countermeasures on Dynamic-Hash-Table Based Public Auditing for Secure Cloud Storage	33
<i>Hong-Shan Luo, Rui Jiang, and Bei Pei</i>	
Analysis of Influencing Factors on Forecast Accuracy of Ensemble Learning	37
<i>Guo Fuliang and Zhou Gang</i>	
Tracking the Mobile Jammer Continuously in Time by Using Moving Vector	43
<i>Liang Pang, Pengze Guo, Xiao Chen, and Zhi Xue</i>	
Review of the Tibetan Text Clustering	49
<i>Jiu-Yi Li, Hong-zhi Yu, Tao Xu, Chuan-Qi Lan, and Pei-Xin Liu</i>	
Automatic Posture Alignment Method of Spacecraft in Docking Process of Solar Wing	53
<i>Tao Guo, Guangtong Liu, Yougao Fan, Jingjing Zhao, and Dameng Chen</i>	
A New NURBS Based Skinning Algorithm of STL Model	58
<i>Wei Ming, Xu Zhang, Zhuo Lv, and Guobin Gou</i>	
A 3D Modeling Method of Indoor Objects Using Kinect Sensor	64
<i>Bowei Shen, Fang Yin, and Wusheng Chou</i>	
A Novel Hybrid Based on Wolf Pack Algorithm and Differential Evolution Algorithm	69
<i>Xiayang Chen, Chaojing Tang, Jian Wang, Lei Zhang, and Yi Liu</i>	
Research on 3D Visualization Technology of Electromagnetic Field Based on OSG	75
<i>He Rongmao, Xu Zhongfu, Wang Lihua, and He Zhengqiu</i>	
A Robust Affine Invariant Point Extraction Algorithm for Image Registration	79
<i>Wei Wang, Xingwei Yan, Zhilin Wang, and Jianhua Shi</i>	
Research on Method of Emergency Cases Retrieval Based on Case-Based Reasoning	83
<i>Chao Feng, Naiding Yang, and Ting Lei</i>	
Design and Research of Efficiency Data Acquisition and Analysis Platform Based on Android	87
<i>Hailong Wang, Jun Zhou, Zhouquan Du, and Qing Yao</i>	
BSAIC: Identification of Significant Copy Number Aberrations in Cancer	91
<i>Ming Sun, Jun Ruan, Jianlian Wang, Simin He, and Junqiu Yue</i>	
A Disease Detection Method of Liver Based on Improved Convolutional Neural Network	96
<i>Xin-Yu Jin, Zhen-Hua Du, Ting Zhang, and Lan-Juan Li</i>	
Parameter Estimation of Multiple Frequency-Hopping Radar Signals	99
<i>Xiangqian Zhang and Shunsheng Zhang</i>	
A Hybrid Pedestrian Motion Modeling Approach for Crowd Simulation	103
<i>Tianlin Li, Yiping Yao, Wenjie Tang, and Feng Yao</i>	
Machine Learning in Vulnerability Databases	108
<i>Zhechao Lin, Xiang Li, and Xiaohui Kuang</i>	

High Speed Maneuvering Target Detection Based on the Modified Keystone Transform	114
<i>Wentao Li, Wei Zhang, and Zhichao Jiao</i>	
An Improved Ant Colony Algorithm of Three Dimensional Path Planning	119
<i>Weijie Qian and Lanfeng Zhou</i>	
Research on Neighborhood Search Strategy of Artificial Bee Colony Algorithm for Satisfiability Problems	123
<i>Ying Guo and Changsheng Zhang</i>	
Traffic Signs Classification Based on Local Characteristics and ELM	127
<i>Wenju Li, Qi Chen, Tianzhen Dong, Lihua Wei, and Qing Zhang</i>	
Ensemble Tracking Based on CNN	131
<i>Xiancai Zhang, Zhuang Miao, Yang Li, Jiabao Wang, Bo Zhou, and Zhijie Zhao</i>	
Study on Simulation Credibility Control of Command System	135
<i>Wenfu Liu, Ronghua Zhang, Zhengqiu He, Fangxia Xue, and Rongmao He</i>	
Classification of Lung Nodules Based on Convolutional Deep Belief Network	139
<i>Xinyu Jin, Chunhui Ma, Yuchen Zhang, and Lanjuan Li</i>	
Community Structure Identification in Networks via Detecting Community Center Method	143
<i>Haochen Li, Huiwen Xue, and Yanfei Wang</i>	
Influence of Kneepad Tightness on Women's Knee Joint Protection in Running	147
<i>Zhao Jiawen, Zimin Jin, Yuxiu Yan, and Jianwei Tao</i>	
Wearability Reasearch and Optimization of Functional Jade Sportswear Fabrics	151
<i>Bingjing Wu, Zimin Jin, Yuxiu Yan, and Jianwei Tao</i>	
Representation of Mechanical Structure Morphology	155
<i>Xu Cijun, Huang Songlin, and Li Xin</i>	
A Novel Medical Image Segmentation Method Based on GCBAC Model	161
<i>Liangliang Li, Yujuan Si, Baoluo Ma, and Zhenghong Jia</i>	
Base Station Locations Optimization in LTE Using Artificial Immune Algorithm	165
<i>Liangliang Li, Baoluo Ma, Zhenghong Jia, and Yujuan Si</i>	
Determination of the Varieties of Rice Kernels Based on Machine Vision and Deep Learning Technology	169
<i>Ping Lin, Yongming Chen, Jianqiang He, and Xiaorong Fu</i>	
Emission Predicting by Weights Decaying RBF(WDRBF) Based on Clustering Data	173
<i>Li Han, Rongchang Zhang, Yu Dong, and Liping Shi</i>	
Design on Optimization of Phase for Urban Traffic Coordinated Control	178
<i>Hao Wang, Feng Huang, Hongcai Wang, and Dong Chen</i>	
A Real-Time Ranging Method Based on Parallel Binocular Vision	183
<i>Huantai Xu, Xia Liu, Chengfei Zhu, Shuxiao Li, and Hongxing Chang</i>	

Attribute Based Computer Wargaming Rule Model	188
<i>De-fu He, Rui Tu, and Xiao-ling He</i>	
Using Partial-Policy Q-Learning to Plan Path for Robot Navigation in Unknown Enviroment	192
<i>Juli Zhang, Junyi Zhang, Zhong Ma, and Zhanzhuang He</i>	
Design of an Image-Jamming Signal Detection System	197
<i>Yang Zhang, Chuan Shi, and Huanyao Dai</i>	
Fast Modeling Methods for Complex System with Separable Features	201
<i>Chen Chen, Changtong Luo, and Zonglin Jiang</i>	
Improved Crow Search Algorithm with Inertia Weight Factor and Roulette Wheel Selection Scheme	205
<i>Zhaojun Shi, Qishen Li, Sheng Zhang, and Xiaojuan Huang</i>	
Image Segmentation of Liver CT Based on Fully Convolutional Network	210
<i>Xinyu Jin, Huimin Ye, Lanjuan Li, and Qi Xia</i>	
Convolutional Neural Networks for Comprehending Geographical Features of International Important Ramsar Wetland Ecological Habitat Scenes in China	214
<i>Yongming Chen, Ping Lin, and Shanchao Jiang</i>	
Harbor Detection in Large-Scale Remote Sensing Images Using Both Deep-Learned and Topological Structure Features	218
<i>Qiankun Ye, Hong Huo, Tinghe Zhu, and Tao Fang</i>	
Learning Deep Features for Classification of Typical Ecological Environmental Elements in High-Resolution Remote Sensing Images	223
<i>Haosheng Zhang, Bo Yang, Tao Fang, and Hong Huo</i>	
Identification of Adhesive Quality of Multi-interface Adhesive Members	228
<i>Runjing Zhou and Nan Li</i>	
Embedded Development of Water Jet Propulsion System Based on Matlab and MDK	232
<i>Wang Yawei, Wu Jiechang, Chang Guanghui, Su Pan, and Zhang Yu</i>	
Hybrid Metaheuristic for Multi-objective Steelmaking-Continuous Casting Scheduling	236
<i>Yuan Shuaipeng, Li Tieke, and Wang Bailin</i>	
Topic-Adaptive Sentiment Analysis on Tweets via Learning from Multi-sources Data	241
<i>Yongzhi Tong, Bin Zhou, and Jianhui Huang</i>	
Constant Bearing Guidance Law for Homing Missiles	247
<i>Zhigao Liu</i>	
Optimization of Blastability Parameters of Ore Rock Based on Multi-source Information Fusion Theory	252
<i>Jiang Fuliang, Yang Wenchao, Zhang Shuai, Li Ming, and Wang Xiaoli</i>	

Optimization Study of Ventilation Parameters in Roadway Type Stopes Based on Fluent Software	256
<i>Jiang Fuliang, Li Ming, Yang Zengguang, Li Xiangyang, Zhang Shuai, Yang Wenchao, and Wang Xiaoli</i>	
The Optimization of Forced Ventilation Parameters on Blind Roadway Based on Fluent Numerical Simulation	260
<i>Jiang Fuliang, Zhang Shuai, Yang Zengguang, Li Xiangyang, Li Ming, Yang Wenchao, and Wang Xiaoli</i>	
A Real-Time Suspicious Stay Detection System Based on Face Detection and Tracking in Monitor Videos	264
<i>Zihan Ren, Xiaoying Zhang, and Shuangyuan Yang</i>	
Intelligent Identification Method for Mental Color Trace Based on Deep Learning	268
<i>Dazhi E, Keming Mao, and Ming Zhang</i>	
Investigations in Automatic Humor Recognition	272
<i>Donghai Zhang, Wei Song, Lizhen Liu, Chao Du, and Xinlei Zhao</i>	
Research on Author Identification Based on Deep Syntactic Features	276
<i>Chen Zhao, Wei Song, Lizhen Liu, Chao Du, and Xinlei Zhao</i>	
Genetic Programming Based ECOC for Multiclass Microarray Data Classification	280
<i>JiaJun Wang, KunHong Liu, MengXin Sun, and QingQi Hong</i>	
Modeling of Gyro-Stabilized Platform Based on NARX Neural Network	284
<i>Zhang Cheng, Jiang-Ning Xu, Miao Wu, Feng Li, and Shi-Luo Guo</i>	
Hybrid Ant Colony Algorithm for Logistics Distribution Problem with Time Windows	289
<i>Ye Gao and Chong Liu</i>	
Quickly and Non-destructively Estimating Tensile Strength Factors of EVAC-Based Materials on the Fields	292
<i>Yongming Chen, Ping Lin, Du Li, and Chunlei Gu</i>	
Acquisition of Open Source Software Project Maturity Based on Time Series Machine Learning	296
<i>Qin Liu, Xiaolong Li, Hongming Zhu, and Hongfei Fan</i>	
An ECOC Approach for Microarray Data Classification Based on Minimizing Feature Related Complexities	300
<i>Mengxin Sun, Kunhong Liu, and Qingqi Hong</i>	
Collaborative Filtering Recommender Algorithm Based on Comments and Score	304
<i>Yuanqing Zhu, Wei Song, Lizhen Liu, Xinlei Zhao, and Chao Du</i>	
Study on Construction Method of Irregular Wake Flow Field Based on Grid Adsorption Interpolation	308
<i>Xue Yuan and Xu Hao-Jun</i>	
Research on Multi-disciplinary Design Optimization for Marine Power Plant	312
<i>Hongsheng Yin, JinLin Liu, and FanMing Zeng</i>	

Research on Algorithm of Segment and Classification of audio in Broadcast.....	316
<i>Yuhang Sun and Jian Zhou</i>	
Multi-level PLRU Cache Algorithm for Content Delivery Networks	320
<i>Fang Miao, Du Chen, and Libiao Jin</i>	
An Improved Indoor Localization Method for Mobile Robot Based on WiFi Fingerprint and AMCL	324
<i>Song Xu and Wusheng Chou</i>	
Research and Application of Hybrid Random Selection Genetic Algorithm	330
<i>Jin Zhu, Libo Huai, and Rong-yi Cui</i>	
An Optimized Algorithm for Calculating the Average Path Length of Complex Network	334
<i>Bin Chen and Lei Cao</i>	
Exact Least Square Registration Algorithm for Multiple Dissimilar Sensors	338
<i>Da Li, Danyi Wu, and Ping Lou</i>	
Iterative Unbiased Converted Measurement Kalman Filter for Target Tracking	342
<i>Da Li, Xiangyu Zou, and Ruifang Li</i>	
Adaptive Sliding Mode Control of Functional Electrical Stimulation (FES) for Tracking Knee Joint Movement	346
<i>Min Li, Wei Meng, Jiwei Hu, and Qiang Luo</i>	
A Security Framework for Database Auditing System	350
<i>Wang Huijie</i>	
Key Technologies of TV Programs Subjective Evaluations Based on Opinion Mining	354
<i>Taozheng Zhang</i>	
Precision Evaluation of the Reconstruction Model Based on Unigraphics	358
<i>Jing Liu</i>	
Unsupervised Representation Learning for Pulmonary Nodule Classification	362
<i>Xinyu Jin, Fenghao Zhu, Lanjuan Li, and Qi Xia</i>	
Preliminary Application of Gesture Recognition to Virtual Acupuncture	366
<i>Mu Zhang, Yan Zheng, Chenhui Cui, Zhaopeng Meng, and Chung-Ming Own</i>	
Deep Learning Based Nodule Detection from Pulmonary CT Images	370
<i>Zheng Wang, Hongshan Xu, and Meijun Sun</i>	
Efficient and Balanced Virtualized Resource Allocation Based on Genetic Algorithm in Cloud	374
<i>Zhang Xiaoqing</i>	
Cell Separation Using Simple Microchip Configuration Experimental and Simulation Analysis	378
<i>Saeed Omer, Imran Suhymani, and Yulin Deng</i>	

Variance Reduced Stochastic Optimization for PCA and PLS	383
<i>Erxue Min, Jianjing Cui, and Jun Long</i>	
Learning Multiscale Deep Features and SVM Regressors for Adaptive RGB-T Saliency Detection	389
<i>Yunpeng Ma, Dengdi Sun, Qianqian Meng, Zhuanlian Ding, and Chenglong Li</i>	
A Real-Time Face Detector Based on an End-to-End CNN	393
<i>Chenghao Zheng, Menglong Yang, and Chengpeng Wang</i>	
A Brain Computer Interface Based on Motor Imagery for Maze Game	398
<i>Tichou Zhou, Anqi Chen, and Kun Chen</i>	
T-S Fuzzy Model of a Nonlinear Networked System with Switching Topology and Its Stability and Consensus Analysis	402
<i>Qiye Zhang, Xiao Tian, and Yuqing Liu</i>	
Prediction of Laboratory Equipment Demand Based on Grey Relation Analysis and Elman Neural Network	408
<i>Shuo Ding, Qinghui Wu, Xiaoheng Chang, and Fang Zhang</i>	
A statistical-Based Model for Prescription Fraud Detection	N/A
<i>Hongxiang Zhang and Lizhen Wang</i>	
Modeling and Schedulability Verification of IMA Partitioning Based on AADL	417
<i>Zhexu Liu and Zhen Zhao</i>	
Anomaly Detection in Crowded Scenes via SA-MHOF and Sparse Combination	421
<i>Lei Hu and Fangyu Hu</i>	
Action Recognition Using DMM-Gabor Descriptor and Temporal Segmentation	425
<i>Song Wang, Jianwu Dang, Yangping Wang, Xiaogang Du, and Tao Lei</i>	
Research on Cross-Age Face Verification Based on Artificial Neural Network Under Examination Environment	430
<i>Keping Ye and Fangyu Hu</i>	
Multiclass Microarray Data Classification Based on SA-ECOC	434
<i>Zhong Tianyun, Wang Jiajun, Liu Kunhong, Wang Beizhan, and Hong Qingqi</i>	
Cross-Domain Sentence Compression with Auxiliary Tasks	438
<i>Liangguo Wang and Lejian Liao</i>	
Multi-warehouse Location of Logistics Based on Dijkstra and Divide-and-Conquer Algorithm	442
<i>Donggu Hou and Wei Zhang</i>	
Hierarchical Segmentation of Remote Sensing Images by Unsupervised Deep Learning Features	448
<i>Yuhui Li, Huo Hong, and Tao Fang</i>	
Discriminative Topic Sparse Representation for Text Categorization	454
<i>Wenbin Zheng, Yanqiu Liu, Huijuan Lu, and Hong Tang</i>	

The Optimal Checkpoint Interval for the Long-Running Computation	N/A
<i>Zhenpeng Xu and Weiwei Li</i>	
Classification of Discourse Role Based on Neural Network	462
<i>Zhimin Chen, Wei Song, Lizhen Liu, Xinlei Zhao, and Chao Du</i>	
Saliency Estimation Model Based on Superpixel and Regions Contrast	466
<i>Zhaoxia Xie</i>	
Load Scheduling of Thermostatical House-Hold Appliances Against Abrupt Changes in Smart Grid	470
<i>Pengshuai Cui, Lu Feng, Peng Xun, and Peidong Zhu</i>	
Optimization of Index-Based Method of Metadata Search for Large-Scale File Systems	476
<i>Jiulong Chang, Limin Xiao, Zhisheng Huo, Bingyu Zhou, Li Ruan, Haitao Wang, and Shaobo Liu</i>	
Deceive Mouse-Dynamics-Based Authentication Model via Movement Simulation	482
<i>Shujie Hu, Jun Bai, Hongri Liu, Chao Wang, and Bailing Wang</i>	
Research on Topological Risk of Expressway Networks	486
<i>Chenchen Zhang and Limin Jia</i>	
Working Stress Analysis of Rail Transit Driver Based on ECR Model	492
<i>Shoufang Dong, Haiyan Zhu, and Zhigang Liu</i>	
ML-LSTM: A LSTM-Based Approach for Multi-label Classification	N/A
<i>Wenli Yu, Yunming Ye, Feng Li, Yan Li, and Huajie Chen</i>	
A Path Planning Algorithm Based on Fluid Simulation	502
<i>Wei You, Yong Yin, Xiaobin Qian, and Xiaoxi Zhang</i>	
Design of Electrical Parameter Measurement System of Quartz Crystal Oscillator	507
<i>Qingjia Gu, Tao Huang, Lei Pu, and Shijian Xie</i>	
Power Transformer Fault Diagnosis Using Support Vector Machine and Particle Swarm Optimization	511
<i>Wenxiong Mo, Tusongjiang Kari, Hongbing Wang, Le Luan, and Wensheng Gao</i>	
Applying Cosine Similarity to Discount Evidence	516
<i>Dawei Xue and Yong Wang</i>	
Author Index - Volume 1	520

2017 10th International Symposium on Computational Intelligence and Design (ISCID 2017)

**Hangzhou, China
9-10 December 2017**

**Volume 2
Pages 1-523**



**IEEE Catalog Number: CFP1760E-POD
ISBN: 978-1-5386-3676-3**

2017 10th International Symposium on Computational Intelligence and Design

ISCID 2017

Table of Contents

Volume - 2

Preface - Volume 2.....	xiii
Organizing Committee - Volume 2.....	xiv
Program Committee - Volume 2.....	xv
Reviewers - Volume 2.....	xvii

Volume 2

Traffic Obstacles Comprehensive Identification Using Shape Descriptors in Video	3
<i>Shumin Liu and Xujuan Xu</i>	
Research on the Production and Marketing Match Model of Agricultural Products Based on Analytic Hierarchy Process	8
<i>Dengwei Wang, Chi Zhang, Tian'en Chen, and Yan Tang</i>	
An Improved Discrete Grey Model and Its Application	13
<i>Liang Wang</i>	
Performance Exploration for high Performance Simulation in Lightweight-Virtualization-Based Cloud	17
<i>Feng Yao, Yiping Yao, Sirui Bao, Dong Meng, Jiawei Fei, and TianLin Li</i>	
Two Methods of Determining Target Orientation by Robot Visual Principle	22
<i>Gang Liu</i>	
The Research of Entertainers Collaboration Relation Based on Association Rules	26
<i>Xin Wang, YanNi Bai, RuiXue Zhang, and XinDian Wei</i>	
Open Domain Question Answering with Character-Level Deep Learning Models	30
<i>Kai Lei, Yang Deng, Bing Zhang, and Ying Shen</i>	
A Reversible Data Hiding Scheme for HEVC	34
<i>Feng Gui and Han Xue</i>	

Operation Efficiency Evaluation of Science and Technology Enterprise Incubator	38
<i>Bibo Dai and Hongting Wang</i>	
New Estimation Methods for the Navigation Error of the UUVs	43
<i>Zhang Li, An Rong, and Zhao Xin</i>	
Robust Optimization of Via Using ANOVA and DOE	N/A
<i>Shilei Zhou, ChangZheng Zhou, Hao Li, and Di Chen</i>	
Aero-Engine Lubricating Oil Metal Content Prediction Using Non-stationary Time	
Series ARIMA Model	51
<i>Yanming Yang, Wanchun Gao, and Chaoran Guo</i>	
Path Planning Algorithm for Automatic Parallel Parking from Arbitrary Initial Angle	55
<i>Lixue Wang, Liqin Guo, and Yongyi He</i>	
Pipe Routing for Aero-Engine Using Modified MOEA/D	59
<i>Guoshuai Jiao, Qiang Liu, Li Mao, and Xiu Guo</i>	
The Remote Monitoring System of Vegetable Greenhouse	64
<i>Qiuchan Bai and Chunxia Jin</i>	
The Adaptive Discrete Cuckoo Search for Parallel Flow Shop Problem	68
<i>Lei Zhang, Nan Yin, and Shaocan Wang</i>	
Distributed Control for Multirobot Systems with Collision-Free Motion Coordination	72
<i>Guangyu He and Huifeng Li</i>	
Path Planning Method Combining Depth Learning and Sarsa Algorithm	77
<i>Dong Xu, Yicheng Fang, Ziying Zhang, and Yulong Meng</i>	
Task Allocation of Multi-AUVs Based on Innovative Auction Algorithm	83
<i>Ziying Zhang, Jie Wang, Dong Xu, and Yulong Meng</i>	
Human Motion Retrieval Based on Feedback Learning	89
<i>Qinkun Xiao, Yidan Zhao, and Kin Fun Li</i>	
Action Recognition Based on Graph Model Inference	93
<i>Qinkun Xiao and Yidan Zhao</i>	
Navigation System of the Stacking Vehicle Based on Fuzzy Control and Laser	
Scanner	97
<i>Liqin Guo, Lixue Wang, Yongyi He, and Sheng Bao</i>	
Research on Multi Agent Manufacturing Process Optimization Method Based	
on QPSO	103
<i>Runze Wang, Xuesong Jiang, and Jing Zhao</i>	
A Method of TE Process Fault Detection Based on Improved WNBC	108
<i>Xingang Wang and Xiu Sun</i>	
Research on the Improvement of Association Rule Algorithm for Power Monitoring	
Data Mining	112
<i>Mengmeng Cao and Chaoyou Guo</i>	

Relation Extraction and Discovery from Free Texts via Bootstrapping	116
<i>Yunlong Yang and Jie Luo</i>	
A Novel Quadtree-Salient Image Decomposition for Color Doppler Flow Imaging	122
<i>Yi Zhang, Nan Wan, Jun Wang, and Wan Tao</i>	
Research on Data Association Method Based on Directed Graph	127
<i>Tao Sun and Min Yu</i>	
ROS-Based Indoor Autonomous Exploration and Navigation Wheelchair	132
<i>Zhengang Li, Yong Xiong, and Lei Zhou</i>	
Design of a sEMG Signal Acquisition Instrument for Physical Rehabilitation Training	136
<i>Rong Zhou, Kang Wang, and Min Li</i>	
Study of Time-Cost Optimization Based on ACO and Gas on Software Project Management	N/A
<i>Chunhua Huang</i>	
Low Light Image Enhancement Based on Luminance Map and Haze Removal Model	143
<i>Xie Wei, Long Xueling, Tu Zhigang, Yu Jin, and Xu Ke</i>	
Research of Assembly Job Shop Scheduling Problem Based on Modified Genetic Programming	147
<i>Haili Lv and Guozhen Han</i>	
Active Control Simulation of Double Layer Vibration Isolation Platform Based on Simulink with Variable Step Size On-line Identification	152
<i>Chi Huang, Qiwei He, Zhengtao Yan, and Weipeng Gao</i>	
Vision-Based Moment of Inertia Estimation of Non-cooperative Space Object	156
<i>Bingyu Xu and Shuquan Wang</i>	
Time Window Based Path Planning of Multi-AGVs in Logistics Center	161
<i>Zhenyu Fan, Chonglin Gu, Xiao Yin, Chunyan Liu, and Hejiao Huang</i>	
Predicting Countermovement Jump Heights by Time Domain, Frequency Domain, and Machine Learning Algorithms	167
<i>Sarbagya Shakya, Zhanxin Sha, and Zhanxin Sha</i>	
Routing Optimization in Distribution of Cold Chain Logistics	171
<i>Xiao Yin, Chonglin Gu, Zhenyu Fan, and Hejiao Huang</i>	
Stereo Odometry Based on Careful Frame Selection	177
<i>Hanqi Fan and Shuai Zhang</i>	
Research on Influence Evaluation Algorithm of Tibetan Micro-Blog User Behavior	181
<i>Jinxi Zhang, Hongzhi Yu, and Jing Jiang</i>	
The Fine-Grained Topic Evolution Based on the Probability Model	186
<i>Xin Liu, Yan Jia, Bin Zhou, and Liqun Gao</i>	

Research and Implementation of Text Classification Model Based on Combination of DAE and DBN	190
<i>Zhenyu Yang and Xue Pang</i>	
Functional Link Artificial Neural Network with Cloud Estimation of Distribution Algorithm for Traffic Flow Forecast	194
<i>Ying Gao and Waixi Liu</i>	
An Improved Particle Filter Based on Bird Swarm Algorithm	198
<i>Liang Zhang, Qilian Bao, Wenxiu Fan, Ke Cui, Haigui Xu, and Yuding Du</i>	
Analysis of Airport Departure Baggage Check-in Process Based on Passenger Behavior	204
<i>Ziyu Li, Jun Bi, Jun Zhang, and Qianwen Li</i>	
Dynamic Subspace Models for High-Sulfur Gas Sweetening Process Monitoring	208
<i>Xiaohua Gu, Kun Zhang, Haihong Tang, Tian Wang, and Liping Yang</i>	
Multi-query Optimization via Common Sub Query Elimination for SPARQL	213
<i>Xiaoyi Zhou, Jie Luo, and Tao He</i>	
Research on Clustream Algorithm Based on Spark	219
<i>Xingang Wang and Qi Sun</i>	
Comparison of Intelligent Algorithms to Design Satellite Constellations for Enhanced Coverage Capability	223
<i>Xiaolong Zhu and Yang Gao</i>	
An Ensemble Classifier Algorithm for Mining Data Streams Based on Concept Drift	227
<i>Yushui Geng and Jianguo Zhang</i>	
Feature Combination Tracking	231
<i>Shaokun Feng and Yanan Zhao</i>	
A Quadtree Index Scheduling and Crack Elimination Algorithm of Massive City Models	236
<i>Lihong Dong, Huikai Hu, and Yexun Peng</i>	
An Intelligent Identification Method of Vehicle Driving Cycle Based on LVQ Model	240
<i>Yuefei Wang, Nan Zhang, Jingbao Xia, Baijun Liu, and Yuan Wu</i>	
Semantic Reasoning of Question Answering Over Heroes of the Marshes Based on Concept Knowledge Tree	244
<i>Ziqi Lin, Wancheng Ni, Haidong Zhang, Meijing Zhao, and Yu Liu</i>	
Research on Ferry Vehicle Scheduling Problem Within Airport Operations	248
<i>Qianwen Li, Jun Bi, and Ziyu Li</i>	
Heterogeneous Transfer with Deep Latent Correlation for Sentiment Analysis	252
<i>Guoyong Cai and Guangrui Lv</i>	
A Motion Trajectory Matching Based Data Fusing Scheme for the Navigation of Unmanned Ground Vehicles	257
<i>Qi Zhu, Zhenping Sun, Shaowei Li, Liang Xiao, and Bin Dai</i>	

Simulation Research on PD-Fuzzy Control of Air Cushion Vehicle's Course	263
<i>Xu-Ming Liu, Da-Bin Hu, Jian-Bo Xiao, and Jin-Hui Hu</i>	
Task Scheduling Simulation of Spacecraft Test Based on Genetic Algorithm	267
<i>Feng Yang, Liang Ren, and Nan Yang</i>	
Research and Implementation of Mobile Cloud Computing Offloading System Based on Docker Container	270
<i>Wang Huaijun, Tian Ling, Li Junhuai, and Gao Zhe</i>	
Application of Multi-objective Genetic Algorithm in Ship Shafting Alignment Optimization	275
<i>Guojun Lai, Jinlin Liu, and Fanming Zeng</i>	
Inertial Navigation System Alignment Based on Fading Kalman Filter and Fixed Point Smoother	279
<i>Shiluo Guo, Jiangning Xu, and Zhang Cheng</i>	
Estimation of Distribution Algorithm with Machine Learning for Permutation Flowshop Scheduling with Total Tardiness Criterion	283
<i>Hao Liying, Li Tieke, Wang Bailin, and Luan Zhiwei</i>	
An Improved Data Anomaly Detection Method Based on Isolation Forest	287
<i>Dong Xu, Yanjun Wang, Yulong Meng, and Ziying Zhang</i>	
Research on Data Conflict Resolution Method Based on Fuzzy Partial Ordering Relation	292
<i>Aizhang Guo, Kun Xue, and Tao Sun</i>	
Research on Service Selection in Manufacturing Cloud Environment	297
<i>Qin Lu and Jianlong Feng</i>	
Application Research of Night Intelligent Surveillance System in Residential Quarters	302
<i>Yongwu Wu, Youfu Wu, Zufeng Fu, and Jun Li</i>	
Research on Information Sharing Mechanism in the Service Process of Intelligent Cloud-Logistics System	308
<i>Qin Liu</i>	
Design of Power Monitoring System on Smart Hotel	312
<i>Juan Wang, Zihua Bao, and Yongjie Yang</i>	
Research on Exception Data Cleaning Method Based on Clustering in Hadoop Platform	316
<i>Aizhang Guo, Ningning Zhang, and Tao Sun</i>	
Heuristic Map Tiles Prefetch Strategy Based on Road Network Analysis	321
<i>Hui Qi, Xiaoqiang Di, and Jinqing Li</i>	
A Novel Image Defogging Algorithm Based on Improved Bilateral Filtering	326
<i>Aimin Li and Xiaocong Li</i>	
Complex Event Detection Method Based on Extended Hash Structure	332
<i>Aizhang Guo, Wenjun Yang, Tao Sun, Aizhang Guo, Wenjun Yang, and Tao Sun</i>	

Design of Cultural Product Evolution System Based on Interactive Genetic Algorithm	336
<i>Defu Bao, Min Zou, Jingzhuo Zhang, and Sanyuan Zhang</i>	
Application of Cuckoo Search Algorithm in the Establishment of Datum Coordinate System of Body Sheet Metal Parts	340
<i>Lijia Ren and Ming Li</i>	
Study of Unsaturated Magnetic Image Processing in Wire Rope Application	344
<i>Xiaojiang Tan and Juwei Zhang</i>	
Error Compensation Method of Magnetometer for Attitude Measurement Using Modified Artificial Bee Colony Algorithm	348
<i>Jing Yu, Feng Ding, Xin Zhao, and Fang Zhou</i>	
Research on Intrusion Detection Based on Feature Extraction of Autoencoder and the Improved K-Means Algorithm	352
<i>Xinggang Wang and Linlin Wang</i>	
Effect of VR Interactive Design System on Visual Feedback and Operational Experience	357
<i>Danni Shen and Yi Zhou</i>	
Prediction of Road Traffic Congestion Based on Random Forest	361
<i>Yunxiang Liu and Hao Wu</i>	
Statistical Methods Based on Parameters Applied to the Partial Discharge Pattern Recognition in Power Devices	365
<i>Xinye Wu and Hongbo Ye</i>	
Job Rejection Strategies in Genetic Algorithm for Permutation Flowshop Scheduling Problem with Rejection	369
<i>Bailin Wang, Haifeng Wang, and Tieke Li</i>	
Stock Technical Analysis System Based on Real-Time Stream Processing	373
<i>Wencheng Ding, Hongya Wang, Nan Peng, Yingyuan Xiao, and Zhenyu Liu</i>	
Finding Interesting Cleaning Rules from Dirty Data	378
<i>Nan Peng, Hongya Wang, Wencheng Ding, Yingyuan Xiao, and Zhenyu Liu</i>	
Delay Normalization Interference Resistance Packet Order Based Flow Watermarking Technology	383
<i>Liancheng Zhang, Yi Guo, Juwei Yan, Yazhou Kong, and Zhenxing Wang</i>	
Social Language Affective Computing Using Sparse Representation	387
<i>ShengJu Jin</i>	
An Intelligent System for Detecting Illegal Words in Online Advertisement	391
<i>Yong Wang, Huifang Guo, and Qiang Song</i>	
Application of Hadoop Based Distributed Data Cleaning Technology in Periodical Meta Data Integration	396
<i>Xiuyuan Liu, Aizhang Guo, and Tao Sun</i>	

An Improved Robot's Localization and Mapping Method Based on ORB-SLAM	400
<i>Hailan Kuang, Xiaodan Wang, Xinhua Liu, Xiaolin Ma, and Ruifang Li</i>	
An Anomaly Detection Method Based on Multi-models to Detect Web Attacks	404
<i>Ming Zhang, Shuaibing Lu, and Boyi Xu</i>	
Automatic Recognition of Simile Based on Sequential Model	410
<i>Xiao Hu, Wei Song, Lizhen Liu, Xinlei Zhao, and Chao Du</i>	
Design of Quadrotor Hovering Controller Based on Improved Particle Swarm Optimization	414
<i>Xingyang Lu, Xiangyin Zhang, Songmin Jia, and Jichao Shan</i>	
Variational Optical Flow Based Velocity Estimation for Omni-Directional Intelligent Wheelchair	418
<i>Jichao Shan, Xiuzhi Li, Songmin Jia, and Xingyang Lu</i>	
Research of Non-rigid Medical Image Registration Based on Gradient Information	423
<i>Shaomin Zhang and Lijia Zhi</i>	
An Intelligent Strategy to Gain Profit for Bitcoin Mining Pools	427
<i>Yi Liu, Xiayang Chen, Lei Zhang, Chaojing Tang, and Hongyan Kang</i>	
A Multi-objective Deep Reinforcement Learning Approach for Stock Index Future's Intraday Trading	431
<i>Weiyu Si, Jinke Li, Peng Ding, and Ruonan Rao</i>	
Compliant Mechanism Design of Multiphase Material Wing Leading Edge	437
<i>Lijie Zhao, Chao Di, Kai Li, Jingkui Li, and Jun Liu</i>	
Query Classification Using Convolutional Neural Networks	441
<i>Hanxiao Zhang, Wei Song, Lizhen Liu, Chao Du, and Xinlei Zhao</i>	
Multi-feature 3d Model Retrieval Method Based on Shape Context	445
<i>Yikun Zhang and Yan Tang</i>	
Attention-Based Gated Recurrent Unit Networks for Neural Relation Extraction	N/A
<i>Qianqian Zhang, Mengdong Chen, and Lianzhong Liu</i>	
Application of Improved Set Pair Analysis in Risk Assessment of Shallow Groundwater Pollution	454
<i>Yan Zhang, Yong Liu, Bo Lei, and Feng Zhang</i>	
A Novel Digital Broadcasting System Based on Polar Codes in Shortwave	459
<i>Haiyun Liu, Hang Yin, and Hanyu Xie</i>	
Solution of Flexible Job Shop Scheduling Problem Based on Ant Colony Algorithm and Complex Network	463
<i>Huanjun Pang and Xuesong Jiang</i>	
Application of QFD and FMEA in Ship Power Plant Design	467
<i>Taixiang Wang, Jinlin Liu, and Fanming Zeng</i>	

Parameter Identification of Chaotic Systems Using an Improved Artificial Bee Colony Algorithm	471
<i>Dongli Zhang and Yinggan Tang</i>	
Identifying Influential Spreaders on Weighted Networks Based on ClusterRank	476
<i>Yafei Wang, Guanghui Yan, Qingqing Ma, Yu Wu, and Dan Jin</i>	
The Pruning Algorithm of Parallel Shared Decision Tree Based on Hadoop	480
<i>Xiangyang She, Tao Lv, and Xiaojian Liu</i>	
Study on Text Classification Algorithm Based on Non-negative Matrix Factorization	484
<i>Yongxia Jing, Heping Gou, Chuanyi Fu, and Qiang Liu</i>	
Research on a Shafting Platform's Reasonable Alignment Based on ANSYS and MATLAB	488
<i>Guojun Lai, Jinlin Liu, and Fanming Zeng</i>	
Application of Genetic Algorithm Based on F-Ratio Rule in Signal Feature Selection	492
<i>Ting An</i>	
A FKSVM Model Based on Fisher Criterion for Text Classification	496
<i>Lu Jiang, Fang-ai Liu, Daomeng Xu, and Weiwei Zhang</i>	
Application of Improved Particle Swarm Optimization in Economic Dispatch of Power System	500
<i>Ghislain Yanick Gninkeu Tchapda, Zhengui Wang, and Yanxia Sun</i>	
Recommendation Based on Collaborative Filtering by Convolution Deep Learning Model Based on Label Weight Nearest Neighbor	504
<i>Weiwei Zhang, Fangai Liu, Lu Jiang, and Daomeng Xu</i>	
Route Planning of Mustered Helicopters for Underwater Searching Mission	508
<i>Zhang Li, An Rong, and Li Kaisheng</i>	
The Development of the Simple Transfer Instrument for Reducing the Burden of Caregivers: Effect of Back Support Length	512
<i>Shuang Li, Tianmin Guan, and Dezhu Zhao</i>	
The Development of the Simple Transfer Instrument for Reducing the Burden of Caregivers: Effects of the Setting of the Knee Brace	516
<i>Shuang Li, Tianmin Guan, and Dezhu Zhao</i>	
Author Index - Volume 2	520