

4th International Conference on Machinery, Materials and Information Technology Applications (ICMMITA 2016)

Advances in Computer Science Research Volume 71

Xi'an, China
10-11 December 2016

Part 1 of 2

Editors:

Yong Fang

Yue Xin

ISBN: 978-1-5108-3546-7

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by Atlantis Press

All rights reserved.

<http://www.atlantis-press.com/php/pub.php?publication=icmmita-16>

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact the publisher:

Atlantis Press
Amsterdam / Paris

Email: contact@atlantis-press.com

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
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PART 1

SESSION 1: COMPUTER SCIENCE AND ENGINEERING

Research on Multi-attribute Vertical Handoff Algorithm Based on Motion Trend Quantification in Internet of Vehicle	1
<i>Mingji Yang, Ye Wu, Rong Cui</i>	
Application of Improved Expert Scoring Method with Delphi Principle in CMMI DAR Process Area	8
<i>Junwei Hou, Xianggu Meng</i>	
Calculation and Optimization of OSNR Based on Long-Distance OTN Network	12
<i>Yanzhi Sun, Jinsong Hu, Yuming Liu, Zhijun Tian, Huiyi Chai</i>	
Model Optimization of Air Quality with M-ELM	16
<i>Jianxiang Ye, Wenzhen Zhou, Zhigang Li, Jinlan Zhou</i>	
Exploring Key Technologies of Multi-Sensor Data Fusion	20
<i>Li Wang, Hongxia Guo</i>	
Moving Object and Shadow Detection Algorithm Using Lab Color Space	24
<i>Zhiyong Ju, Xiaolei He, Chaonan Wang</i>	
Simulation Analysis of Optimal Excitation Control for Mobile Power Station	31
<i>Yu-Tong Wang, Tian-Zhang Shao, Zhi-Feng Gu, Hui-Tong Gu</i>	
An Optimized Algorithm for Device Discovery Using BLE	37
<i>Yan Zhang, Zheng Song, Wendong Wang, Ye Tian</i>	
The Application of Image Processing in the Criminal Investigation	43
<i>Weiye Shi</i>	
Research on the Advanced Computing Method for Supporting Large Data Quality Assessment and Improvement	47
<i>He Yang, Jiangqi Chen, Xiaojia Xiang, Heng Liu, Yunpeng Li</i>	
Apparent Age Estimation with CNN	56
<i>Zhiqin Zhang</i>	
Indoor Location Algorithm in Complex Wireless Environment	62
<i>Zhangang Wang, Zhiyu Lu, Hang Lu, Yankui Zhang, Donghang Jia</i>	
A Feature-based Method for MBD Model Exchange Among Heterogeneous CAD Systems	70
<i>Weikang Xie, Gang Zhao, Yong Yu, Yaodong Wang</i>	
Modelica-based Modeling and Simulation of Satellite On-orbit Deployment and Attitude Control	79
<i>Feifei Chen, Gang Zhao, Yong Yu, Jiangyong Wang, Peng Cao</i>	
Application of Gray Cloud Model in Software Quality Evaluation	88
<i>Yong Shao, Zhen Jia, Changshun Yan</i>	
Gray Prediction of Air Pollutants in Beijing Based on Improved Residual GM (1, 1) Model	95
<i>Yong Shao, Yang Zhang, Changshun Yan</i>	
A Study on Temperature Field and Spheroidizing Annealing Process in Bell-type Annealing Furnace	102
<i>Xibang Zhang, Ziyang Liu, Fengqin Wang, Lin Zhao</i>	
Model Analysis and Numeric Simulation of Wireless Communication at High Speed	106
<i>Chunrui Zhang</i>	
Simplification and Optimization of Visual Tracking Convolutional Neural Networks Parameters	111
<i>Zhiyong Qin, Lixin Yu</i>	
Energy Optimization for a Simple Household Microgrid Based on Demand Response	118
<i>Qingzhu Wan, Yalan Chen, Xin Wang</i>	
Principle and Outlook of Holography	127
<i>Yiran Wang</i>	
Design and Implementation of Power Flow Calculation Service Based on WCF	136
<i>Lifang Xu, Tong Jiang, Zhao Yu, Chengnan Lu</i>	
The Determination of Serum Cholesterol Concentration with Improved Differential Evolution Algorithm Based on Ultraviolet-visible Absorption Spectrum	140
<i>Mingcheng Gui, Weihua Zhu, Feng Zhu, Ying Geng, Weihao Hua, Chunmei Tang, Zhimin Zhao</i>	
The Assessment of Operational Command And Decision Based on the AHP-Fuzzy Comprehensive Evaluation	149
<i>Zhao Xue, Xiaoming Du, Guoxu Pei</i>	
Power Distribution Network Carrier Communication Route Hybrid Algorithm Based on Ant Colony	153
<i>Ya Li, Rusen Fan, Wei Jiang, Junjie Yang</i>	
Study of the SIR Model and Improvement Based on Applications	159
<i>Siyuan Zhang</i>	
Research on Analysis System for Trace hydrogen sulfide content Based on threshold method of Heursure Denoising and TDLAS	164
<i>Taoyi Xu, Cheng Zhong</i>	
Constructing Teacher-student Relationship Mechanism for EFL Development Based on Ubiquitous Computing Technologies	169
<i>Huanhuan Ren, Chi Ma</i>	
The Model of Teachers' Roles in Promoting Learner Autonomy Based on Ubiquitous Computing Technologies	174
<i>Huanhuan Ren, Chi Ma</i>	

Research on Internet Security Payment Based on Multi-factors and Strong Authentication	178
<i>Qingsu He, Junsheng Wang, Qingzhi Han</i>	
The Shared Savings Contract Online Supply Chain Inventory and Transportation Optimization Model Research	182
<i>Ying Chen, Yonghua Yang</i>	
A Comparison of Three Estimation Methods In Linear Regression Analysis	187
<i>Xianghong Luo</i>	
Modification Algorithm of Cubic B-spline Curve Interpolation	192
<i>Wan-Jun Zhang, Shan-Ping Gao, Su-Jia Zhang, Feng Zhang</i>	
Modification Algorithm of NURBS Curve Interpolation	198
<i>Wan-Jun Zhang, Shan-Ping Gao, Su-Jia Zhang, Feng Zhang</i>	
Parameter Estimation for Gaussian Mixture Processes based on Expectation-Maximization Method	204
<i>Xue Xia, Xuebo Zhang, Xiaohui Chen</i>	
Multi-Layer Modeling of OpenFlow based on EFSM	209
<i>Zhihao Zhang, Dongming Yuan, Hefei Hu</i>	
Heuristic Approaches for Minimum Weighted Latency Problem	215
<i>Ziqi Wei, H. Mike Macgregor</i>	
Research on Image Processing Technique for Small Targets in Large Field of View Based on Linear CCD	220
<i>Liqun Zhang, Ping Song, Chuangbo Hao</i>	
The Research of Intersection Traffic Violation System	224
<i>Nanyan Liu, Peng Hu</i>	
A Refined Model of Ontology-driven Information Extraction	228
<i>Chunyu Cong, Shan Huo, Xiao Meng, Rui Gao, Zhongying Wang</i>	
Human Action Recognition Algorithm Based on Improved Dense Trajectories	232
<i>Yuling Sun, Peng Gan, Xiao Yu</i>	
Construction of Politically Sensitive Information Ontology and Semantic Reasoning based on Protégé	239
<i>Yefan Wu, Shujun Li, Ying Jiang, Runbo Zhuang, Zejia Pan, Weichen Li</i>	
The Development of Rapid Building 3D Scene Tool Based on Demands for Aging Adapting Functions in Old Residential Buildings	248
<i>Xiaolei Zhao, Hong Ji, Jianbing Liu, Xinzhu Xing</i>	
A 16b 4GSPS Two-Times Interleaved DAC with INL $\leq \pm 2.9$LSB	254
<i>Hai Dong, Zongmin Wang, Ying Kong, Xinmang Peng</i>	
Research of Comprehensive Effect Evaluation of Organic Agriculture Cluster Based on the Fuzzy Co-Clustering for Images	259
<i>Lankai Liu, Qianqian Zhang</i>	
Development and Application of Internet of Things Technology in Greenhouse	268
<i>He Gong, Hongyan Ju, Zhongwei Zhao, Bin Liu</i>	
Design of H.265 Streaming Media Player System Based on QT	273
<i>Yu-Hua Wu, Min Zhang, Ting Yang, Shi-Jun Li</i>	
A Cloud Serving Based Electronic Book Platform: Research and Implementation	278
<i>Wei Dong</i>	
Research on Requirement Elicitation Model of High-end Equipment Based on Requirement Classification Under Internet and Big Data Environment	283
<i>Yu Guo, Juntong Wu, Ke-Wei Yang, Lixin Yu</i>	
Assessment and Improvement Model Plan for the Current Situation of Water Resources Problems	291
<i>Shi Feng</i>	
Development and Design of Fitness Exercise Prescription System Based on Cloud Storage	295
<i>Ying Li</i>	
Analysis of Railway Information Processing Platform	300
<i>Dechao Liu, Lei qiang He, Qin Niu</i>	
Chaotic Analysis and Dimension Reduction of Shanghai Composite Index Time Series	305
<i>Peiqi Zhen, Yue Zeng, Jianding Zhou, Lijun Lv</i>	
Improvement of Image Matching Method based on Gray Value and Contracting Mapping Principle	309
<i>Yuncong Sun, Zongshun Hu</i>	
Numerical Simulation Analysis of Influence of Explosive Performance on JPC Molding	314
<i>Kui-Wen Cui, Shuang-Shan Mi</i>	
Linear and Nonlinear analysis of Cardiovascular Time Series During Different Sleep Stages	321
<i>Lianrong Zheng, Yifan Li, Weifeng Pan, Kunyang Li, Guanzheng Liu</i>	
Safety Simulation Analyses for Shot Solid Rocket Motor	326
<i>Hong-Bo Liu, Xin-Long Chang, Kuan Hu, Chun-Guo Yue</i>	
Online SOM-based Level Set Model for Image Segmentation	333
<i>Xiaomin Xie</i>	
Predicting the Semantic Related Words Based on Hidden Markov Model	337
<i>Fuping Yang, Huaifeng Gu</i>	
On the Lattice of Convex Sub-lattices of a Lattice	344
<i>Yi-Hui Zhang, Miao-Ling Wu, Kun-Lun Zhang</i>	
The Library and Information Field's Mass Data Trend Research	348
<i>Wenjun Cai, Guanchun Xu</i>	
Constructing a New Mechanism of Library and Information Service under Big Data Environment	352
<i>Guanchun Xu, Huiyu Guo</i>	

Customized Distribution Automation System based on Wireless Ad-hoc Network	357
<i>Yixin Zhou</i>	
Research on the Numerical Method and Parametric Study of Constitutive Model of Modified Double Base Propellant	361
<i>Hongli Wang, Jinsheng Xu</i>	
Web Based Visualization of Digital Mock-Up with Standardized 3D Formats.....	368
<i>Xiwen Zhang, Gang Zhao, Yong Yu, Sheng Dai, Wei Wang</i>	
The Development and Research of Video on Demand System Based on Streaming Media Technology	376
<i>Bin Yuan</i>	
Improvement of Graph Based Named Entity Disambiguation	381
<i>Xiao Yang, Su-Juan Qin</i>	
Maklink Graph in Conflict-Free Airline Network Designing	385
<i>Yi-Ye Zhou, Deng-Kai Yao, Qian-Rui Sun, Qi-Ke Wu</i>	
Octopus: A Flexible, Efficient MPSoC Prototype for Non-linear Interference Cancellation.....	390
<i>Luechao Yuan, Chuan Tang, Cang Liu, Zuocheng Xing</i>	
Research on Air Traffic Center Control Effectiveness Evaluation Based on Cloud Model	399
<i>Weijun Pan, Yuexiao Pan, Chuyang Yang, Qinghai Zuo, Jie Luo, Qingyu Zhang</i>	
An Improved Genetic Algorithm for Training Airspace Planning.....	404
<i>Jiacheng Ma, Dengkai Yao, Guhao Zhao</i>	
Image Compression Via K-means and SLIC Superpixel Approaches	410
<i>Xiaolin Luo</i>	
Student Achievement Prediction Based on Factor Analysis and BP Neural Network.....	415
<i>Hongchen Guo, Junsheng Liang, Zhiqiang Li</i>	
An Improvement for BigMC	423
<i>Qing-Quan Shi, Dong Xu</i>	
Personalized Recommendation of Classification based on Social Relationship and Time Information	429
<i>Mengzi Tang, Li Li</i>	
Detecting Social Topic by Hashtag-Weighted Topic Model over Time.....	435
<i>Jie Qiu, Li Li</i>	
Study on the Queuing System for Services Being Processed Parallel by Multi-servers	441
<i>Guang Wang, Qiaozheng Ma, Xiangjun Li</i>	
Single Image Deformable Surface 3D Recovery by Linear Programming	448
<i>Wenjuan Ma</i>	
Fast MIMO-ISAR Back Projection Algorithm Based on FFT.....	453
<i>Xiuyou Wang, Hao Wang, Dongqing Xu, Huaming Liu, Jianzhong Fan</i>	
Design of Electric Power Data Management System Based on Hadoop	459
<i>Yongheng Li, Yongzhi Wang, Liang Jin</i>	
A New Site Location Approach Based on Filtering and Clustering for Car Sharing System	463
<i>Yang Yu, Juanjuan Zhang, Jinglin Li</i>	
Algorithm of Keywords Extraction About Power Documents Based on Hadoop.....	469
<i>Tong Wang, Yongzhi Wang, Liang Jin, Yongheng Li</i>	
Hand Gesture Recognition Using Deep Neural Network and Its Implementation in Augmented Reality	473
<i>Huayong Yang, Xiaoli Lin</i>	
Finding the Shortest Path Under Polygonal Obstacle Constraints.....	477
<i>Xu Yan, Dawei Liu</i>	
The Exploration and Practice of MVVM Pattern on Android Platform	481
<i>Wei Sun, Haohui Chen, Wen Yu</i>	
Choosing Peers, Improve the Quality of Peer Assessment.....	489
<i>Jinshuang Li, Xiaohan Fu, Qiuwei Yang</i>	
GPU Accelerated Level Set Non-Homogenous Image Segmentation Solving by Lattice Boltzmann Method.....	493
<i>Qinyong Zeng, Dengwei Wang, Kaiyu Qin</i>	
Dark Background Image-denosing Based on KPCA Method	503
<i>Yiran Xiao, Xiaolin Tian</i>	
Data Fitting-based SNR Estimation Algorithm for the Adaptive Transmission.....	507
<i>Ze Zhou Sun, Chenghua Wang, Xiaofei Zhang</i>	
Research on Structural Random Response Based on C Type Gram-Charlier	511
<i>Xiaokai Wang, Tao Zhang</i>	
Research and Practice of Security Technology in Computer Network.....	516
<i>Qinghong Qu</i>	
Technical Framework Research on Critical Information Infrastructure Cybersecurity Classified Protection	520
<i>Weihong Ren, Jing Yuan, Lei Jiang, Tai Zhao</i>	
Research on Comprehensive Evaluation of Freeway Traffic Safety in Heilongjiang Province	525
<i>Jia Liu, Weiwei Yan</i>	
Research on Communication Networks Effectiveness Evaluation Based on AHP and Fuzzy Clustering	532
<i>Yan Ding</i>	
Intensive Traffic Resource Scheduling based on Map/Reduce in Multi-domain Optical Networks.....	538
<i>Li Du, Xue Sun</i>	
Development of Modern Technology in Electronic Engineering	543
<i>Fang Liu</i>	

Study on the Characteristics of Low-speed Boundary Layer Flow Separation	547
<i>Peng He, Lei Li, Zhongyin Chen, Man Li</i>	
Calculation and Data Processing Method for Aircraft Maneuvering Performance	552
<i>Limin Song, Xiujuan Liu, Wenbi Cao, Song Li, Lei Yuan</i>	
Design of Adventure Game Based on Sanxingdui Culture Elements	556
<i>Jianhao Yu, Yinfang Zhang</i>	
Design and Implementation of an Android EPUB3.0 eBook Learning System	561
<i>Mao Chen, Miao Dai, Hang Luo, Xiaozhen Zou, Sanya Liu</i>	
New Periodic Wave Solutions for MNW Hierarchy with the Aid of Computerized Symbolic Computation	567
<i>Sheng Zhang, Luyao Zhang</i>	
A New Variable-Coefficient AKNS Hierarchy and its Exact Solutions via Inverse Scattering transform	572
<i>Sheng Zhang, Xudong Gao</i>	
A Method to Improve the Annotation Mechanism Based on Radium	578
<i>Mao Chen, Hang Luo, Tengbao He, Sanya Liu</i>	
Modified Stochastic Gradient Estimation Algorithms for Box-Jenkins Model Based on Auxiliary Model	584
<i>Jianxia Feng</i>	
A kind of Prefetching Data Way to Hadoop MapReduce Environments	590
<i>Hui Xia, Peng Wu</i>	
Application of Swarm Intelligent Algorithm Optimization Neural Network in Network Security	596
<i>Hui Xia</i>	
A Constraint-Based Approach to Web Service Simulation	602
<i>Hui Zhou, Han Wu</i>	
No-Reference Image Mosaicing Method Based on the Generalized Evidence Theory	606
<i>Yi She, Junjie Wu, Xin Chen, Guoqing Ding, Lihua Lei, Xiaoyu Cai, Jiasi Wei</i>	
Research on the Fine-grained Plant Image Classification	612
<i>Zhifeng Hu, Yin Zhang, Liang Tan</i>	
Feature Extraction of Ground-Glass Opacity Nodules using Active Contour Model for Lung Cancer Detection	617
<i>Yanli Miao, Jianming Wang, Weiwei Du, Yanhe Ma, Hong Zhang</i>	
On the Existence and Uniqueness of the Formal Solution to a Singular Partial Differential Equation	624
<i>Pingli Li, Sihui Li</i>	
Security Analysis of Two Inter-Organization Cryptographic Schemes	628
<i>Fanyu Kong, Jia Yu, Dashui Zhou, Yali Jiang, Jianwei Shang</i>	
Safety Analysis of Lateral Interval Between Military Training Airspace and Civil Route	633
<i>Qi-Ke Wu, Deng-Kai Yao, Gu-Hao Zhao, Ting-Ting Zhu</i>	
Application of Computer Database Technology in Information Management	641
<i>Jing Cai, Wenfeng Chen</i>	
Key Nodes Detection of Aviation Network Based on Complex Network Theory	644
<i>Congliang Tu, Minggong Wu, Xiangxi Wen, Cheng Han</i>	
Research on Reliability Evaluation Method of Core Processor Software System Based on Component	651
<i>Zhongwei Chen, Songyang Du, Xiaoxia Li, Qian Guo</i>	
Research on Software Reliability Evaluation Model Oriented Final Software Testing Process	656
<i>Zhongwei Chen, Zhihao Yu, Xiaoxia Li, Liang Xiang</i>	
Optimization of Conflict-Free Airline Network Designing	661
<i>Yi-Ye Zhou, Deng-Kai Yao, Qian-Rui Sun, Qi-Ke Wu</i>	
Building Structure Topology Optimization	667
<i>Xianjie Wang, Yong Sun, Mengjie Xiang</i>	
3-D Numerical Simulation of Influence of Twin Pile Group Loadings on Neighboring Railway Subgrade	671
<i>Dong Xiao, Guanlu Jiang, Fangdong Gao</i>	
Accident Analysis of Equipment System Based on the Event Sequence Diagram and Fault Tree	676
<i>Xin Ren, Yuan Li, Tie-Ying Wu, Kan Zhang, Li Ma</i>	
Digital Image Processing of Urban Complex Thermal Environment	681
<i>Baoshan Cao</i>	
Min-Max Decoding for Non Binary LDPC Codes	689
<i>Dan Feng Zhao, Jiahui Meng, Hai Tian</i>	
Sports Training Decision Making Method Based on AHP and Evidence Theory	695
<i>Yao Bi, Qingbin Wang</i>	
RBF Fuzzy Reasoning Flexible Decision Making Method Oriented to Statistical Information	699
<i>Tao Duan, Jing Huang</i>	
Cloud Computing K-Means Text Clustering Filtering Algorithm based on Hadoop	705
<i>Suyu Huang</i>	
A Study on Efficiency of Agricultural Product Logistics Based on Factor Analysis - An Example from Hubei Province	711
<i>Yue Li, Chengbiao Li</i>	
Assessment on Development Level of Sport Industry Based on Data Mining	716
<i>Yupeng Song, Ling Jia</i>	
A Design of Knowledge Extraction Process of Work Flow Texts Based on Domain Ontology	719
<i>Yingnan Zhang</i>	
A Modeling Method of Multimedia Database Based on Semantic Sequence	724
<i>Wenlei Zhang</i>	

Evaluation System Construction for Logistics Supply Chain of Cross-border E-commerce	728
<i>Lianming Zhao</i>	
An Effective Data Distribution Algorithm.....	735
<i>Keming Tang, Yong Xu, Hao Yang, Weipeng Lv, Yue Ye</i>	
An Improved Tracking Model Based on Self-adaptive Kalman Filter	739
<i>Meng Lian, Yi Sun</i>	
An Anonymous Algorithm for Hierarchical Clustering Based on K-Prototypes.....	746
<i>Yuan-Jing Yao, Yi Sun</i>	
Cardiac CT Image Segmentation.....	752
<i>Zihang Xu, Rui Jiang</i>	
A Heuristic Method Based on Answer Set Program in Bilateral Negotiation	756
<i>Long-Yun Gao, Wu Chen</i>	
Application of Refined Increasing Difference Property in XOR-based MDS Codes.....	762
<i>Lei Zhang, Yong Peng, Zhaohui Liu, Jie Liang, Chang Jin</i>	
Non-local Means Image Denoising with Bilateral Structure Tensor	766
<i>Huan Li, Yi Xu</i>	
Analysis and Design on the Models of Quick Stabilized Tracing Platform	772
<i>Zhifei Lv, Zhenhong Zhu</i>	
Energy Efficiency Research of BIPV System in Partial Shading Condition	779
<i>Mingfei Wei, Huiqin Wang, Li Jiang, Fang Yang</i>	
An Improved OTSU Method Based on Genetic Algorithm.....	783
<i>Wei Shang, Yan-Fen Cheng</i>	
Algorithm Optimization of Recommendation Based on Probabilistic Matrix Factorization	789
<i>Qi He, Yan-Fen Cheng</i>	
An Improved Method of Removing Fog and Haze Effect From Images.....	795
<i>Jia Shi, Ke-Jian Yang</i>	
Design of A Miniature Near-infrared Laser Range-gated Real-time Video Processing System	801
<i>Shudong Wang, Su Qiu, Weiqi Jin, Shaopeng Wu</i>	

SESSION 2: ELECTRONICS AND ELECTRICAL ENGINEERING

Flow Simulation Based Energy Efficient Clustering in Wireless Sensor Network.....	806
<i>Yi Jiang</i>	
The Modified Digital Channelization Method.....	812
<i>Chun Hua Yang</i>	
Capacity and Error Rate Analysis of SIMO Satellite Systems over Ka Band at Venezuelan Amazonian	818
<i>Gustavo Guedez, Qiang Gao, Marja Guarirapa</i>	
SIMO Satellite Communication Systems over Ka Band at Venezuelan Amazonian in Rain Fading Scenarios	823
<i>Gustavo Guedez, Qiang Gao, Marja Guarirapa</i>	
Analysing the Influence of Subsurface Impurity on Laser-induced Damage Threshold of KDP Crystal	828
<i>Chunyuan Jing, Xiaohong Guo, Tao Zhang, Lizi Chen</i>	
Compressed Sensing to Power Quality Signal with Orthogonal Matching Pursuit Method	834
<i>Hua Ouyang, Zhonglin Yang, Hui Li</i>	
The Influence of Odevity of Carrier Ratio on Three-level Rectifier.....	838
<i>Pengzhan Wang, Wei Luo, Shasha Yang, Tianzhi Cao, Huawei Li</i>	
Study on the Design and Structure of Mid-infrared InGaAsSb Quantum Well Laser	844
<i>Minghui You, Qixiang Sun, Shijun Li, Liping Yin, Xue Li, Jingsheng Liu</i>	
A New Method of Power Quality Detection on Limited Capacity System.....	848
<i>Chuang Lv, Pu Xie</i>	
SSK Modulation with Single Photon Avalanche Diode.....	853
<i>Song Han, Jian Zhang, Jie Song</i>	
First-principles Calculations of Electronic Properties of $P\bar{6}-Si_3N_4$ and $P\bar{6}-Si_3N_4$ Under Pressure.....	858
<i>Xiaoqian Wang, Hui Lv, Yanhua Yin, Mei Sun</i>	

PART 2

Research on Braking Electric Vehicle of Producing Renewable Energy	863
<i>Zhi-Qiang Xu</i>	
Design of Angle Measurement System Based on CPLD and MSP430	867
<i>Wei Wang, Liping Zheng</i>	
Study on the Method of Measuring Direction and Positioning with the Sparse Linear Array Sensor on the Partial Discharge(PD) Source	871
<i>Tong Liu, Xiaolong Xu, Hao Du</i>	
Analysis of Electromagnetic Scattering Characteristics of Moving Target Group Based on Quasi-static Principle	874
<i>Chaoyang Li</i>	
Research on High Voltage Control Caused by Small Hydropower	884
<i>Junjie Xiong, Hao He, Shanlian Guan</i>	

Harmonic Analysis and Control in 35kV Xin'an Substation	889
<i>Cai-Bo Deng, Jun-Jie Xiong</i>	
Development of Virtual Instrument System for Large-scale Transport Aircraft Simulator Based on HLA	897
<i>Ren-Xia Ou, Hua-Lei Zhang, Xu-Yang Huo, Hong-Bin Chen</i>	
Low Complexity Carrier Phase Estimation for 16-QAM Systems	901
<i>Jilong Han, Wei Li, Haitao Yao</i>	
Simulation Research on Redundant Mechanism of Dual CAN Bus	905
<i>Lilong Tan, Le Yang, Shuai Li, Li Zhang</i>	
Oxygen Vacancies of YIG Influence on the MPE in Au/YIG Heterostructures	910
<i>Xiao Liang, Fei Huang, Chuangtang Wang, Yupeng Zhu, Yan Zhang, Yue Li, Lei Bi</i>	
Design of Surface Electromyographic Signal Acquisition System Based on MATLAB	915
<i>Dan Ren</i>	
Forecast of Power System Load in Short Term	919
<i>Hengshu Ye</i>	
Dynamic Excitation of 2π Vortex in a Hard/soft Bilayer Nanodot	923
<i>Mei Bi, Xin Wang, Li Zhang, Haipeng Lu, Longjiang Deng</i>	
The Short-term Load Forecasting of Electric System	927
<i>Zhaoyuan Wang</i>	
Synthesis of Uniform Porous Fe Micro-flakes with Excellent Magnetic Properties in GHz Range	931
<i>Yanhui Wu, Mangui Han, Longjiang Deng</i>	
Multi-objective Optimization Scheduling Method for Islanded Micro-Grid with PV, Wind Turbine, Diesel Generation and Energy Storage System	936
<i>Yangqi Huang, Junjie Xiong, Xinglong Cai, Wei He, Hao He</i>	
Design and Simulation of Low Noise Amplifier in Lower Frequency	940
<i>Peng Zhao, Fan Li, Jianhui Zhao, Jin Ding</i>	
Tracking Mechanism and Cosine Effect Study of Module-heliostat Solar Collector	944
<i>Haitao Zhang, Yiling Sun, Lu Wu, Xiaokun Zhang, Yong Xiang</i>	
Keyframe-Based Tightly-Coupled SLAM with RGBD Camera and IMU	950
<i>Yiming Zhang, Kui Li, Wei Wang</i>	
Research on Fault Detection and Isolation Algorithm for Hexacopters Based on Detection Filter	958
<i>Yumin Zhang, Hongdi Zhang, Junwu Deng</i>	
Study of Centralized Anti-Islanding Method on Large-Scale Photovoltaic Power Plants	963
<i>Chen-Xin Liu, Cheng-Hong Tang</i>	
De-noising of Eddy Current Array Signal Based on Empirical Mode Decomposition Threshold	969
<i>Bonan Yang, Zhijun Zhang, Jinqiang Du, Yubing Wang</i>	
Application of RFID in Agricultural Product Industry	973
<i>Min Zhang, Yu-Hua Wu, Ting Yang, Shi-Jun Li</i>	
Design and Realization of Intelligent Monitoring System for Soy Sauce Making Based on Embedded WEB	977
<i>Min Zhang, Yu-Hua Wu, Ting Yang, Shi-Jun Li</i>	
Electrostatic Protection Analysis of the Pasting Equipment	982
<i>Minghui You, Xinyu Yu, Qixiang Sun, Liping Yin, Shijun Li, Xue Li, Jingsheng Liu</i>	
Detecting Compromised Sensor Node with Subjective Logic in Wireless Sensor Network	985
<i>Hongwei Zhou, Jinhui Yuan, Laishun Zhang, Rui Xiao</i>	
Protection Scheme of Distribution Network with Photovoltaic Power Supply Based on Partition Protection	991
<i>Cuillian Tang, Hui Zhang, Yan Hou, Qi Zhou, Junhua Li, Lunzhong Huang</i>	
Analysis on the Electrical Conductivity of Microstructure of the Solar Panels Power Supply System of Gelatinization Equipment	998
<i>Minghui You, Xinyu Yu, Qixiang Sun, Liping Yin, Shijun Li, Xue Li, Jingsheng Liu</i>	
Analysis and Design of Amplifying Circuit Resisting Temperature Disturbance of the Food Material Electric Heating Equipment	1002
<i>Minghui You, Xinyu Yu, Qixiang Sun, Liping Yin, Shijun Li, Xue Li, Jingsheng Liu</i>	
Analysis and Design of an Amplifying Circuit for Gelatinization Equipment	1006
<i>Minghui You, Xinyu Yu, Qixiang Sun, Liping Yin, Shijun Li, Xue Li, Jingsheng Liu</i>	
Design of Long Distance Network RFID Reader Based on ISO14443A	1009
<i>Yue Wu, Linli Zhou, Yue Duan, Lei Liu, Huijiang Bao</i>	
Effect of Pulse Wave Shape on Taylor Cone Jetting Behavior in Electrohydrodynamics Micro Jet Process	1016
<i>Bo Xing, Chuncheng Zuo, Yebo Lu, Fengli Huang, Libing Zhang</i>	
The Optimization of Flush Atmospheric Data System Sensors Placement	1020
<i>Zhenxin Huang, Zhenyu Jiang, Leyuan Sun</i>	
A Method for Evaluating Efficiency of Electronic Equipment with Environmental Impact	1027
<i>Lanlan Gao, Jianwei Shi, Junxian Liu</i>	
A Modified Method for Acoustic Pulse Extraction Under Noisy Environments	1033
<i>Menghua Cao, Zhiqiang Sun, Erling Gong, Hongwei Xie</i>	
Research on Motion Sensing Interaction Technology Based on HTC Vive	1040
<i>Fu-Ping Deng, Guang Hong, Shuai Zhang, Bing Zhai</i>	
Exploration on the Management Method of Low Frequency Load Shedding in Regional Power Grid	1044
<i>Guowei Ren, Rui Ren</i>	
Building Integrated Lightning Protection Technology and System Design	1048
<i>Xianjie Feng</i>	

Different Terms Fluctuations of Solar Power System	1054
<i>Yindong Liu, Changchun Hu, Miao Miao, Fei Peng</i>	
Hand Vein Recognition with Single-layer Feature Learning Model	1061
<i>Haoyu Wang, Xiaomin Liu, Bingguang Chen</i>	
Design of Decision Support System for Soil Testing and Formula Fertilization based on the Intelligent Agriculture	1066
<i>Yue Qi, Yueying Leng, Min Wang, Yanan Hu, Yane Bai</i>	
Research of Ofloxacin Based on Terahertz Spectrum.....	1072
<i>Song Zhang, Xiai Chen, Xiaohong Gu, Qiang Wang, Ling Wang</i>	
Research and Development of Electric Energy Efficiency Management Experiment System	1076
<i>Songxue Hou, Wei Wu, Shunchao Wang, Yu Hu, Ming Fa</i>	
Cognition of DTN Wireless Relay Multicast Routing through Link Reliability Relation.....	1084
<i>Dening Kong</i>	
Construction and Analysis of Light Energy Transfer Model Based on Underwater Environment.....	1089
<i>Yan Liu, Lu Yu</i>	
Research on the Improvement of Sea Target Defog Based on Dark Channel Prior.....	1096
<i>Likun Liu, Pengtao Ni</i>	
Noise Filtering Design of Non-intrusive Electrical Monitoring System	1102
<i>Xinghao Wei, Bo Yin, Zhicheng Zhu</i>	
Power Based Event Detection for Electrical Appliances.....	1108
<i>Xiu-Wei Wang, Yan-Ping Cong, Bo Yin</i>	
A 3.75Gbps Configurable Continuous Time Linear Equalizer and 3-tap Decision Feedback Equalizer in 65nm CMOS	1113
<i>Yong Fu, Zhiping Wen, Lei Chen, Jian Zhang</i>	
Bottom-up Copper Plating to Form Stacked Interconnection of HDI Printed Circuit Board for Optical Module Application	1121
<i>Jiujuan Li, Yuanming Chen, Yongqiang Li, Na Wen, Shouxu Wang, Lijun Gong, Bei Chen, Wei He</i>	
Research and Design of Mouse Scanner Module.....	1125
<i>Wen Long, Li Li, Weiqi Jin</i>	

SESSION 3: AUTOMATION, CONTROL AND MEASUREMENT

Analysis on Closed-loop Control System of Class F Gas Turbine	1129
<i>Lei Shi, Xiaomeng Chen</i>	
Using Artificial Bees Colony Algorithm for License Plate Recognition	1136
<i>Weiyu Yu, Dan Hu, Chuyi Li</i>	
Effect of Relative Permeability on Control Performance of Suspension System	1141
<i>Zhen Jia, Jie Li, Guan Chun Li</i>	
Compressed Deep Convolution Neural Network for Face Recognition	1146
<i>Ying Zou, Xiaohong Liu</i>	
Revolute Joint Motion Control System Design Based on Hydraulic Oscillation Cylinder	1151
<i>Bei Sun, Ying Xu, Lei Hu, Yao Wang</i>	
Design and Research of the Test Data Management and Analysis System for Space Robot.....	1155
<i>Kai-Hang Ma, Yong-Ming Gao, Lei Li, Zhi-Huan Wu</i>	
Multi-sensor Data Real-time Monitoring and Management System Based on Onboard UAV for Ocean Observation	1163
<i>Xuan Li, Yong Han, Fang-Jie Yu, Ge Chen</i>	
Development and Application of Fiber Strain Monitoring System for Ship Structure.....	1171
<i>Sujun Yang, Huien You, Shihai Hua, Yanqing Wei</i>	
Frequency Control Method of Isolated Micro-grid Based on Thermostatically Controlled Load	1177
<i>Qingzhu Wan, Yuan Bian, Yalan Chen</i>	
Static Parameter Detection and Identification of Power Grid Branch Based on PMU Measurement.....	1184
<i>Yunfeng Cui</i>	
Identification of Singular Samples in Near Infrared Spectrum Correction Set by Using Monte Carlo Cross Validation	1190
<i>Aixiao Zou, Yaxin Qu</i>	
Research on Application of Fuzzy Control Algorithm in Nonlinear System.....	1196
<i>Libo Yang</i>	
Rough North Seeking Method Based on Tracking Speed Detection Method.....	1200
<i>Shuai Li, Qiyuan Zhong, Li Zhang, Le Yang</i>	
Ferromagnetic Resonance Controlled by Micro-regions in Fe-Co Based Thin Film	1204
<i>Xiaojia Luo, Peiheng Zhou, Xin Wang, Jianliang Xie, Longjiang Deng</i>	
Infrared Recognition Technology and Its Development Trend in the Middle Segment of Ballistic Missile	1210
<i>Hua-Yu Dai, Yan-Li Xu, Shuang Zhao</i>	
Bearing Fault Detection Based on TQWT and Hilbert Envelope.....	1216
<i>Qi Liu</i>	
Overview of the Technology of Low Altitude Warning Based on Acoustic Detection.....	1220
<i>Shaocheng Zhu, Limin Liu</i>	
Flight Control System for Quad-rotor Aircraft Based on Improved Integral Separation PID.....	1227
<i>Hongpeng Tian, Lei Li</i>	

Research on Robustness Prediction and Reactive Scheduling based on Aviation Supporting Resource Breakdown	1232
<i>Lianfei Yu, Cheng Zhu, Weiming Zhang, Jin Liu</i>	
Design of 3d Display Control Comprehensive Training System for UAV	1240
<i>Ren-Xia Ou, Hua-Lei Zhang, Xu-Yang Huo, Hong-Bin Chen</i>	
DT : A Detection Tool to Automatically Detect Code Smell in Software Project	1245
<i>Xinghua Liu, Cheng Zhang</i>	
Effect of Equivalence Ratio on Particle Variation of CH₄ /Air Mixture of Coaxial Dielectric Barrier Discharge	1249
<i>Lei Chen, Chao Feng, Wuqiang Long, Peng Song, Qianqian Wu</i>	
Characteristic of Electron Density of Coaxial Dielectric Barrier Discharge of CH₄ /Air Mixture	1254
<i>Lei Chen, Chao Feng, Wuqiang Long, Peng Song, Qianqian Wu</i>	
Monitoring Corrosion of Steel Bar Using Ultrasonic Guided Wave	1259
<i>Xi Liu, Lei Qin, Xiaochang Ni, Xiaojun Zhu, Shifeng Huang, Xin Cheng</i>	
Autonomous Navigation System of Hexapod Robot based on Fuzzy Neural Network	1263
<i>Shuang-Hong Li, Ling-Wen Kong, Qiao-Ling Du</i>	
Human Shape Recognition Algorithm Design Based on Hu Moments and Zernike Moments	1269
<i>Weiguo Chen, Jinchuan Lu</i>	
Development of Integrated Starter-generator Test System Based on Virtual Instrument	1276
<i>Lijie Chen, Yanmin Xu</i>	
The Application Research Of 5G Wi-Fi in the Medical Monitor	1281
<i>Xiaopeng Li, Lanzhen Chen, Yaohuan Sheng</i>	
A Wi-Fi Wireless Localization Method Based on Local Linear Regression and Position Weighting	1285
<i>Yongjun Zhang, Haixu Guo</i>	
Small Target Detection and Recognition Based on Template Matching	1293
<i>Tiansheng Zhao</i>	
Design of Global Positioning System Based on Single Chip Microcontroller	1298
<i>Yong He, Yanan Chen</i>	
Predictive Control of Networked Control Systems Based on Event-triggered	1306
<i>Wangzhi Wen, Zhongmeng Xiao</i>	
Interception of the Near Space Hypersonic Weapons Based on the Partial Integrated Guidance and Control Method	1312
<i>Bin Fu, Hang Guo, Jie Yan</i>	
Alarm Correlation Research and Implementation Based on Similar Data Sources	1321
<i>Yi Tang, Dahai Jin</i>	
Research on Dynamic Gesture Recognition Algorithm Based on Multi-touch Human-computer Interaction Devices in Classroom Teaching	1326
<i>Zhao Zhang, Xiuling He, Zengzhao Chen, Ke Wu</i>	
Research on Information Security for the Solution for Controller of Coordinate Measuring Machine(CMM)	1335
<i>Yong Zhu, Ruwei Cui, Yingang Yang</i>	
Hand Vein Recognition with Bag of SIFT Feature Model	1341
<i>Fuqiang Li, Tongzhuang Zhang, Yong Liu</i>	
Research on Patent Strategy of Intelligent Agriculture and Automobile Electronic Information Industry in Jilin Province	1347
<i>Yueying Leng, Yue Qi, Min Wang, Xinhui Guan, Yinan Hu, Yane Bai</i>	
Auto-detection of Arch Curve from Dental Meshes	1355
<i>Ting Wu, Libing Zhang</i>	
A FOCUSS-based Subspace Method for Blind Identification Robust to Order Overestimation	1360
<i>Wuqiang Zhou, Jingwei Li</i>	
Adaptive Tracking and Recording Method for Dynamic Real-time WiFi Fingerprint Positioning	1367
<i>Liang Dong, Dong Liang</i>	
Recognition of Sports Action Pattern Based on Sparse Matrix Vector	1373
<i>Yupeng Song, Ling Jia</i>	
Face Recognition Based on Regularized Gabor Fusion Contour Wave Two Transform	1379
<i>Yingjie Zhao, Yisu Liu</i>	
Saliency Detection Using Min-cut Proposals Framework	1384
<i>Meiling Sun, Fengxia Li, Sanyuan Zhao, Da Huo, Chenguang Yang</i>	
Research of Real-time Face Recognition Method on Mobile Intelligent Device	1390
<i>Wu Lv, Tian-Huang Chen</i>	
1.25 GHz Single-photon Detection with Sinusoidally Gated InGaAs/InP Avalanche Photodiode	1396
<i>Yuanjin Chen, Zinan Huang, Guomin Bai, Heping Zeng, Yan Liang</i>	
Control System of Intelligent Vehicle by Panoramic Vision	1400
<i>Yubin Zhou</i>	

SESSION 4: MACHINERY AND MANUFACTURING TECHNOLOGY

Influence of Motor Starting on The Operating Characteristics of Diesel Generator Sets	1406
<i>Guogang Wei, Shiyu Sun, Jiming Liu</i>	
Study on Hot Forming Parameters of Torsion Beam Based on Regression Analysis	1411
<i>Fei Xiong, Guiyong Yang, Tao Jiang, Kai Yu</i>	

Influence of Process Parameters on Punch Force Evolution in Deep Drawing Process.....	1415
<i>Wenyu Ma, Fengqin Wang, Lin Zhao, Xibang Zhang, Ziyang Liu</i>	
Design of Cantilever Mechanism of Endoscopic Detection Device	1420
<i>Jinwei Fan, Kaikai Liu, Haohao Tao, Qi Lv</i>	
Research on the Geometric Errors Identification of Rotary Axes on the Five-axis Machine Tool.....	1425
<i>Jinwei Fan, Haohao Tao, Qi Lv, Kaikai Liu</i>	
Finite Element Analysis and Structure Improvement of CNC Grinding Machine Lathe Bed.....	1430
<i>Jinwei Fan, Qi Lv, Haohao Tao, Kaikai Liu</i>	
Methods Based on CNC Grinding Fault Distribution Parameter Estimation for Reliability Assessment.....	1435
<i>Jinwei Fan, Shi Ji, Hongliang Wang, Lanqing Zhang, Haohao Tao</i>	
Introduction to the ATLAS Detector at the LHC	1441
<i>Ang Li</i>	
The Application of Solar Burst Theory in the Study of Episodic Jets.....	1444
<i>Zhiyu Yin</i>	
Research on Magnetron Sputtering CNx Films Process Based on Orthogonal Experimental Design	1450
<i>Kang Peng, Xin-Min Shen, Jian-Zhao Zhou, Hong-Fei Shang</i>	
A Novel Land Subsidence Control Technique for "Green Mining"	1457
<i>Jingli Zhao, Pengfei Wang, Zimo Cui</i>	
Strategy for High Stress Environment in Longwall Entries.....	1461
<i>Baozhu Liu, Jingli Zhao, Pengfei Wang</i>	
Safety Evaluation of Mining Machinery and Electrical System Based on Improved Analytic Hierarchy Process	1466
<i>Erdong Zhao, Hao Jiang, Yufei Zhao, Xiaoying Ma</i>	
Research on the Friction Plate Groove Structure of Wet Friction Clutch.....	1472
<i>Dongyue Qu, Chunhua Zhao, Xiuming Li, Chunyu Zhang</i>	
The Flexible Body Modeling and Simulation Study of the Planet Gear Based on RecurDyn	1476
<i>Yujie Hou, Guangbin Feng, Huagang Sun, Chiyu Hao</i>	
Design and Simulation Study on Automobile Parts Production Line	1480
<i>Zhaoming Chen, Ying Zhao, Zeyu Xu</i>	
Reliability Analysis of Bearing System in High Speed Railway and Software Implementation	1486
<i>Yonghua Li, Pengpeng Zhi, Bingzhi Chen, Yuedong Wang</i>	
Multiscale Model for Progressive Damage Prediction of Carbon/epoxy Laminates Under Thermal-mechanical Loading	1491
<i>Wan-Lei Liu, Xin-Long Chang, Xiao-Jun Zhang, You-Hong Zhang</i>	
Machining Accuracy Retainability Prediction of Machine Tool Based on Least Square Support Vector Machine	1497
<i>Qiang Cheng, Baobao Qi, Bingwei Sun, Guobin Yan</i>	
Research on Propeller Characteristics of Tip Induced Loss	1504
<i>Yang Song, Peng Shan</i>	
Nonlinear Vibration Response Analysis and Experimental Verification of Thin-walled Structures to Thermal-acoustic Excitations	1510
<i>Yun-Dong Sha, Jian Wang</i>	
High Accuracy Low Cost RTK/SINS for Land-Vehicles	1520
<i>Yayang Cheng, Tongyue Gao, Shihao Zhu</i>	
Fault Diagnosis of Rotor Broken Bars in Induction Motor System.....	1526
<i>Tianqi Lu, Tong Wu, Xue Xiao, Sichen Lu, Jiye Yang, Dongxue Li, Zhuoran Song</i>	
The Improved Particle Swarm Breaker Fault Status Parameter Optimization of SVM Classification.....	1531
<i>Yihang Sun</i>	
Implementation of the Teaching Experiment System Based on Unity3d Engine.....	1537
<i>Guang Hong, Fu-Ping Deng, Dong-Yu Zhang, Chao Fen</i>	
Research on Quick Dam Parameter Inversion Tool Based on ANSYS Software Using APDL and Improved GA.....	1541
<i>Futing Sun, Xiuli Zhang</i>	
Water Tunnel Experimental Research on Vortex of Delta Wing	1546
<i>Song Li, Wei He, Kai Luo, Limin Song, Yuankai Li, Jicheng Zhang</i>	
Construction Mechanics and Time-Varying Mechanics in Civil Engineering Analysis.....	1550
<i>Li Wang</i>	
Design Suggestions and Economic Analysis of Light Frame Shear Wall.....	1554
<i>Jie Bai, Quanrui Luo, Feng Chen, Jiansong Yu</i>	
Remanufacturing and Benefits Analysis of Construction Machinery Hydraulic Valves	1559
<i>Dong Xu, Jie Zhang</i>	
Working Mechanism and Its Application of Mechanical Principle Decomposition Symmetry	1563
<i>Zhimin Qiu, Hui Chen</i>	
Main Exploration on Technical Measures for Machinery and Equipment Lightweight Component.....	1566
<i>Yi Jiang, Miao He, Li Xu</i>	
The Influence of Crack Parameters on the Static and Dynamic Frequency of Wind Turbine Blades.....	1569
<i>Yonggang Liu, Yazhou Mao, Dongying Li</i>	
Construction of Mathematical Model for the Bending State of Braided Wire Rope.....	1574
<i>Ping Zhao, Hui Wang, Xiangsheng Tian, Xia Zhao</i>	
Formulation of Scheme for Sports Training Management Based on System Dynamics.....	1579
<i>Yao Bi, Ling Jia, Qingbin Wang</i>	

SESSION 5: MATERIALS SCIENCE AND ENGINEERING

Study on HCl System Wet-etching Process of GaSb-based Materials	1583
<i>Minghui You, Qixiang Sun, Shijun Li, Liping Yin, Xue Li, Jingsheng Liu</i>	
Measurement and Modeling of Aqueous Solutions' Viscosity of Hydrolyzed Acrylic Fiber	1587
<i>Tiangui Wang, Chuang Li</i>	
Pyrolysis Characteristics of Sediment from the Dianchi Lake	1593
<i>Zhenfen Wu, Huilong Luo</i>	
Biosurfactant Applied to Remediation of Cadmium Contaminated Soil	1597
<i>Da Zhao, Tong Bao</i>	
Study on Axial Compression Test of Fiber Reinforced Ultra-High Strength Concrete Column Confined by High-Strength Reinforcement	1601
<i>Mingyang Zhang, Xin Tang, Weilun Wang</i>	
Relationship Between Refractive Index and Molar Concentration of Multi-Component Solutions	1606
<i>Xingyu Zhu, Tiancheng Mai, Zilong Zhao</i>	
Research Progress of the Basalt-type Copper Ore in Guizhou, China	1611
<i>Tao Cui</i>	
Influencing Factors of Transverse Interface Cracking of Carbon Fiber Reinforced Composite	1615
<i>Liang Wu, Chenghong Duan, Dan Hu</i>	
The Technical Limitation of Separate Polymer Injection in Second-class Reservoir	1620
<i>Yuchen Hou</i>	
The Environmental Safety Assessment of Cydiodine Powder	1626
<i>Guiming Li, Jian Fu, Shifa Yang, Ning Liu, Jing Shang, Yue Lu, Ying Li, Zengcheng Zhao, Zhongli Huang, Minyan Feng, Shuqian Lin, Minxun Song</i>	
Design of Double Weighting System for Lithium Battery State Estimation	1631
<i>Dong Jin Yang, Jian An Lou</i>	
High Temperature Corrosion Behavior of Metallic Materials in Modified Hitec Molten Salts	1636
<i>Wei Zhai, Bo Yang, Shiping Li, Zhigang Wang, Shuanghong Zhang, Guojia Huang</i>	
Effect of SiC_{p(Cu)} Addition on the Property of the SiC_{p(Cu)}/Cu Composites	1643
<i>Peiling Ding, Yunlong Zhang, Ming Hu</i>	
Seismic Evaluation and Structural Design on High-rise Shear Wall Structure	1647
<i>Youyang Xin, Huiyong Li</i>	
The Study of the Structures of the Biomacromolecules in Solution with Correlated X-ray Scattering	1652
<i>Shengjun Liu</i>	
Synthesis and Photophysical Properties of a copper (I) complex emitting material containing 1-(9H-fluoren-2-yl)-1H-imidazo[4,5-f][1,10]phenanthroline ligand	1657
<i>Cheng Yi, Shaobo Liu, Feng Zhao</i>	
Effect of Maturation Time of Coagulum of Fresh Natural Rubber Latex on Oxidation Kinetics of Natural Rubber	1662
<i>Bei-Long Zhang, Hong-Hai Huang, Yong-Zhou Wang, Li Ding, Ping-Yue Wang</i>	
River As the Major Source of Cr in Jiaozhou Bay	1669
<i>Dongfang Yang, Fengyou Wang, Sixi Zhu, Ming Wang, Xiuqin Yang</i>	
Uniformity Changing Process of Cr in Waters in Marine Bay	1673
<i>Dongfang Yang, Sixi Zhu, Fengyou Wang, Zhikang Wang, Xiuqin Yang</i>	
Dissolved Oxygen Control for Activated Sludge Wastewater Treatment Processes by ADRC	1677
<i>Li Meng, Xuelian Zhang, Yanping Gong, Xiaowei Han</i>	
Fractional Order Control for Aeration of Activated Sludge Wastewater Treatment Processes	1683
<i>Li Meng, Xuelian Zhang, Ashu Wei, Xiaowei Han</i>	
Analysis of the Evolution Process and the Control of Southern China Devonian Reef	1690
<i>Jiancheng Li, Daizhi Kuang, Wenshi Li</i>	
Generating Power Using 3-Dimensional Graphene Foam	1695
<i>Wenbin Huang, Wanling Li, Xiangjun Song, Yaozhou Liu, Peng Chen, Xiaopan Liu</i>	
The Effect of Substrate Temperature on Chemical Reactions During GaN Growth in a Vertical MOCVD	1699
<i>Lansheng Feng, Runqiu Guo, Jincheng Zhang</i>	
Elements Diffusion of the Interface for Be/ 00Cr17Ni14Mo2 Stainless Steel by Hot Pressing	1703
<i>Hui Li, Yingkun Gong, Yilin Chen, Fei Duan, Xuan Wang</i>	
Elements Diffusion of the Interface for Be/ 00Cr17Ni14Mo2 Stainless Steel with Cu Interlayer by Vacuum Diffusion Bonding	1710
<i>Hui Li, Yingkun Gong, Yilin Chen, Fei Duan, Xuan Wang</i>	
A Review on the Spatial-temporal Migration and Transformation Law of Pb in Jiaozhou Bay	1716
<i>Yu Chen, Huijuan Zhao, Danfeng Yang, Hong Ai, Dongfang Yang</i>	
Spatial Settling Process of Pb in Jiaozhou Bay	1720
<i>Dongfang Yang, Sixi Zhu, Danfeng Yang, Xiuqin Yang, Xiuzhen Tao</i>	
Author Index	