

Green Manufacturing, Mechanical and Automation Engineering

**Selected, peer reviewed papers from the 3rd International
Conference on Mechanical Engineering and Green
Manufacturing 2013 (MEGM 2013)**

Applied Mechanics and Materials Volume 340

**Chongqing, China
22-24 March 2013**

Part 1 of 2

Editor:

Xilong Qu

ISBN: 978-1-62993-345-0
ISSN: 1660-9336

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© (2013) by Trans Tech Publications Ltd.
All rights reserved.

Printed by Curran Associates, Inc. (2013)

For permission requests, please contact Trans Tech Publications Ltd.
at the address below.

Trans Tech Publications Ltd.
Laubisrutisr 24
CH-8712 Stafa-Zuerich
Switzerland

Fax: +41 (44) 922 10 33 Fax: +1 (603) 632-5611
e-mail: sales@ttp.net

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

Preface, Committees and Reviewers

Chapter 1: Mechanical Engineering

Research on Automated Analysis Approach for Tests of Hydro-Turbine Generator Sets G.C. Xie and Z.H. Li	3
Flat Knitting Machine Design Based on Display Accelerator J.Y. Huang and M.Y. Gao	8
Mechanical Analysis on Tennis Forehand Drive X.H. Zhang	13
Gear Failure Forms and Processing Technology Improvement Y. Wei, H. Li and H. Gao	17
Study on Combing Machine Based on Promotion Display Materials X. Ren	21

Chapter 2: Applied Mechanics, Vibration and Friction

Research on Oil and Water Well Casing Damage in the Process of Oil-Field Development Q.H. Li, W. Qu and H.C. Li	27
A Simple Calculation Method of Assembled Type Steel Truss Bridge's Deflection Z.J. Wang, L. Gao, X.H. He and H.B. Liu	31
Study of STI Change Characteristics of Different Groups during Exhaustive Load Process with Vibration and Friction M. Liu	37
Analysis on the Frequency Expansion Seismic Processing Technology in TA112 Field with Vibration S. Fang, X.R. Zhang, H.T. Cao and L. Liu	42
Research on Retaining and Protecting Technology for Foundation Excavation Engineering of Soft Highway Section with Vibration and Friction S.B. Li	50
Measures for Controlling the Steel Support Welding Quality of Building S.B. Li	55
Study on the Safety of Bridge Structure Y. Zhang and Y.D. Wang	59
Study on Repairing and Strengthening Measures of Reinforced Concrete Truss Arch Bridge H.Y. Luo, Q. Li and D. Zhao	64
Vibration Analysis of Gear Drive System Based on Whole Transfer Matrix Method F.J. Lv	69
Distributed Wireless Acquisition System for Seismic Signal with Vibration and Noise H.L. Li, X.G. Tuo and M.Z. Liu	75
Design and Construction Analysis of Cement-Stabilized Macadam Foundation D. Lin	80
The Study on Tunnel Surrounding Rock Displacement Prediction W.S. Shen	85
Stream Turbine Vibration Fault Diagnosis H.S. Su	90
Mechanical Assembly Design Strategy for Rapid Development of Technology D.D. Gao	95
Study on the Durability of Highway Bridge under Heavy Traffic Z.Y. Wang and L.J. Liu	100
Defect Identification and Quality Control of Steel Structure Installation Projects Based on Fishbone Diagram G.F. Wang	104

Chapter 3: Engineering for Green Manufacturing, Supply Chain Management, Decision-Making Technologies and Industry

A Comparative Study of the Equipment Manufacturing Industry Cluster Development Mode	
T.F. Bi and P. Shen	111
Research on Manufacturing Enterprise Training Management Information System Based on B/S Architecture	
Y.X. Yang, C.Y. Yuan and N. Wang	116
Research of Super Capacitance in Automobile Industry	
Y.L. Zhang, Y.S. Wang and Z.X. Wu	122
Research on Sustainable Mining Engineering	
X.G. Yue, G. Zhang, Q.G. Ren, W.C. Liao, J.X. Chen, Z.Q. Zhao and X.L. Xie	126
Improved Facility Layout of Manufacturing Production Workshops	
S.Y. Jia and L. Huang	131
Manufacturer Order Fulfillment Based on Multi-Objective Optimization NSGA II Model	
L.Y. Shu and L.X. Yang	136
Analysis on the Evolution of Information Construction Model in Green Industry Engineering	
W. Xiao	141
Study on Logistics Resources Integration Based on Sustainable Logistics Networking in Manufacturing Engineering	
Z. Yi	145
Safety Performance Evaluation of Green Building Based on Structural Equation Modeling	
L.X. Hu	150
Research on Passing Capacity of Tunnel Section of Highway	
J. Liu	157
Research of Driving Cycle for Electric Bus of Expo Guozhan Line	
P. Gao, X.C. Zhu, Z.X. Ma and S.L. Zhu	163
Green Supply Chain of Coal Chemical Enterprises	
Y. Zhang	168
Research on Inventory Transportation Integrated Optimization Model under the Supply Chain in Green Manufacturing Engineering	
J.X. Xiao, Y.Q. Kang and S.S. Kong	172
Study on Green Ecology-Oriented Fashion Design	
W. Ding	179
Evolutionary Game Research on Cooperative Development in Virtual Manufacturing Enterprise Engineering Management	
Z.L. Geng and Q.H. Min	185
Study on Municipal Water Supply and Drainage Designs	
J.R. He	190
Network Monitoring System in Sustainable Manufacturing Environment Based on .NET and Ethernet/SDARP	
B. Liu, J.Q. Xia and K. Liu	194
Analysis of Products Supply Chain Service System Development and Application in Service-Oriented Manufacturing Mode-Taking Professional Audio Equipment System for Example	
H.N. Mei	199
Study of Management Mode in Machinery Industry	
J.F. Meng and J. Hou	204
On Transformation and Upgrading Manufacturing Industry	
Y. Zhu	208
Analysis of Network-on-Chip Structure in Green Manufacturing	
T. He and T. Qin	213
Study on E-Commerce System of Green Mechanical Processing Enterprises	
Y.P. Ding	218
Study on the Regional Agglomeration of Manufacturing Industries	
X.J. Li	222

Two Basic Issues in the Development of Oil-Field Visualization Q.H. Li, Q. Peng and P.L. Wang	226
Study on Green Intelligent Supply Chain Cost Management in Manufacturing Engineering F.L. Guo	230
Manufacturing Grid Based on Service Request Mode X.L. Xie and Y. Deng	235
Manufacturing Evaluation Model Based on Multi-Attribute Making Engineering P. Ye and Z.W. Chen	240
Stepwise Regression Analysis of Work Locus of Control and Stress in Mine Emergency Rescuers X.M. Li, X.H. Xu, S.Q. Yao, J. Li, R.Z. Wang, Y. Liu, Y.P. Bai and Y.L. Jin	245
Study on Sustainable Integrated Program of Dump Open Pit Optimization C. Chen, D.Q. Gan, Y.B. Zhang and H.J. Lu	250
State Transition Model of Green Logistical Network in Manufacturing Engineering Y.S. Huang and H.M. Du	255
Research on Humanity in Development of Electrical Engineering Y.J. Guo and W. Wang	259
Remote Monitoring System for Green Farmland Engineering R. Luo and Z.H. Zhang	264
Machine Scheduling Scheme in Green Manufacturing Engineering H.R. Diao, F.W. Shao and X. Li	268
Ant Colony Optimization for Optimal Control in Manufacturing Engineering J. Bai, L. Zu and W. Liu	273
A New Image Watermarking Algorithm Using NSCT and Harris Detector in Green Manufacturing D.D. Zhu, X.P. Zhang, Y.L. Zhang and J.B. Dai	277
Research on Network Virtual Laboratory in Manufacturing Industry Z.S. Teng	283
Research on Deformation Monitoring of Manufacturing Engineering K. Ma and M. Sun	287
Design of Vehicle Reservation System in Manufacturing Engineering L.M. Xie	292
Thermodynamical Analysis-Based Design Calculation and Optimization of Chemical Industry Wastes Incinerator H. Zhang, Y. Li, X.Y. He and X.F. Xu	298
Carrying Capacity Estimation of Fleshy Prawn Based on Ecopath Model M.L. Zhang, Z.B. Lv, H.J. Zhang, F. Li, S.W. Li, B.Q. Xu and Y. Zhang	303
Design of Alarm Information in WLAN Monitoring System in Manufacturing Engineering J. Zhao, B.L. Xiao and L.Y. Gao	308
Analysis and Verification of Bullwhip Effect Based on System Dynamics F.X. Yang, B.L. Zhang and Z.Y. Su	312
Research of Pond Fire Model of Base Oil Tin Y.C. Wu, W.H. Song, Z. Chen, X. Xu and K.R. Li	320
Research on Green Hotels Based on Green Materials B. Su	325
Control Measures for High-Rise Building Operation Safety Management Y.K. Chu	329

Chapter 4: New and Sustainable Materials Engineering

Study on Sculpture Based on New Materials J.X. Wang	335
Research on Visual Cortex Prosthesis System and Visual Information Coding Strategy Based on Sustainable Materials H. Zhang and J. Wang	339
Study on New Chinese Architecture Based on New Materials Z.J. Wang and Z.H. Jiang	344

Study of Biosafety of Nanomaterials in Sports Engineering Y. Kai	348
A Modified Protocol for Microbial DNA Extraction and Purification in Crude Oil-Spilled Marsh Soil Y. Wang, J. Feng, G.P. Wang, X.G. Lv and X.Y. Wang	353
Research of the Materials of Building Experimental Model Y. Xia	358
Studies on One-Step Preparation of Multi-Color Fluorescent Carbon-Doped Silica Biological Nanomaterials W.W. Xiong, J. Guo, X. Chen and C.Y. Zhang	362
Design of Sports Field Based on Nanometer Materials B.F. Li	366
Study on Low-Carbon Buildings Materials J. Lin, Z.Y. Wu and J.X. Guo	370
Art of Fashion Design Based on New Materials Z.H. Jiang	374
Sports Equipment Based on High-Tech Materials S. Tao	378
Emission Characteristics of PCBs of Combustion of Sludge-Coal Water Slurry in Fluidized Bed X.L. Zhao and W. Zhu	382
Aquatic Products Determination of Nonylphenol and Octylphenol X.K. Cao, Q.Z. Qian, J.W. Tong and Q. Wang	388
VSR Mechanism Based on MC Algorithm Simulation of Grain Growth Behavior of Sustainable Materials X. Zou, X.J. Li, Y.Y. Gao, K.F. He and J.J. Kun	392
The Application in the Movement Materials Based on the Grey Fuzzy Theory B. Gao, H.N. Cao and H.T. Jiang	396
Study on Mechanics Analysis of Underwater Explosion of Triethylaluminium G.R. Liu, W. Lu, N. Wang and T. Zhou	401
The Largest Eigenvalue Calculating Scheme of Catacondensed Benzenoids in Environment Engineering F.Q. Zhan and O.F. Qiao	407

Chapter 5: Methodology, Devices and Instruments, Measure and Diagnosis, Evaluation and Testing

Interference and Countermeasures of Single Chip Microcomputer System X.X. Zhao and X.M. Chang	413
Efficient Solving Method of Common-Mode Interference in Balanced Bus X.M. Chang and C.G. Gao	418
Laser Array and Key Principles for Smoke Imaging Test B. Lu, L. Wang and W. Tan	422
Design of a Miniaturization Microstrip Antenna and Cavity Model Analysis Y.X. Yang, H.C. Zhao, S. Chen and Y. Chen	427
Research on Detection Techniques of Early Forest Fire Based on Dynamic Characteristics of Smoke H. Lin, Z.P. Qiang, G.Z. Di and Z.G. Liu	431
Three-Dimension Seismic Data Exploration Software in VR Platform X.L. Kong, S.L. Wang and X. Su	436
Feature Extraction of the Crack AE Signal Using HHT Transform K.F. He, Z.J. Zhang and X.J. Li	441
Line Selection Algorithm of Coal Mine High Leakage Based on Fuzzy J.Y. Zhao, X.H. Ma and B.Y. Yan	445
Research of P2P Traffic Real-Time Monitoring Technology Based on DPI Y. Yi, Z.Y. Su, Q.J. Zhao and Z.C. Dai	451

Chaotic Characteristics of Workface Gas Emission Time-Series Data M.Y. Qiao and J.Y. Lan	456
Embedded Digital Control System of the Automatic Test System C.M. Zou	461
Harmonic Detetion Algorithm Based on Identification and Simulation Y.J. Wang, B.B. Xie and P.L. Wang	466
Study on a New Joint Source-Channel Decoder Design F. Zhong and S.X. Guo	471
Paper Surface Defects Recognition Technology Based on Improved BP Network A.J. Wei, Q. Li and T. Wei	476
Mineral Information Extraction Using Hyper Spectral Remote Sensing Technology H. Zhang	480
Intelligent Construction Machinery Fault Diagnosis Based on Multiple Intelligent Machines R.S. Wei	484
Controller Design for Network Control System Based on Gray Prediction X.L. Guo, Y.X. Li and T. Li	489
Research on Improved Range of Passive Radio Frequency Identification Tag by Taking Advantage of Energy-Harvesting and Efficient E-Class Oscillator G. Ye	493
Unknown Input and Disturbance Output Reconstruction for a Class of Linear Systems J.Q. Yang, Y.T. Chen and R. Wang	497
A Lattice Discrete Model for Intensive RFID Reader Deployment C. Chen, S.J. Zhou, J.Q. Luo and Y.P. Chen	502
Energy Efficiency of Cell Range Extension of Picocell Y.F. Lou, W. Guo and W.H. Xiong	507
Printing Defects Detection Based on Two-Times Difference Image Method Y.Y. Guan and Y.C. Ye	512
The Application Research of PLC Temperature Control System Based on Fuzzy Neural Network PID Y.W. Lu	517
Counteraction of Constant Modulus Demodulation Scheme for Mixing Space Borne AIS Signals S.Z. Zhu, Z. Liu and W.L. Jiang	523
Efficient Ring Artifact Remove Scheme of Cone-Beam CT Image H. Wang, G.C. Zhu, Y.Y. Wang and H. Liu	529
Earthquake Disaster Assessment System G.Q. Zhu, J.D. Xu and H.S. Huang	533
Measurement of Moment of Inertia for Flywheel of Bicycles J. Tang, S.S. Wang and Z.G. Zhang	538
Research on a New Type of Integral Sum Graph with the Sequence Label Method D.Y. Shi, X.P. Zhang and W.Y. Li	542
Study of Applying Dynamic Decision Process to Evaluation of Air Safety Y.Y. Wu	546
Timing Acquisition Based on Cooperation Verification of Distributed Receive Antennas in Linear Cell C.J. Qing, J.C. Wei, Y.X. Tang and J.L. Liu	551
Design of DisplayPort Based High-Definition Video Monitor System X.G. Wang and S.P. Zuo	557
On Edge-Balance Index Sets of a Nested Graph with Infinite Paths and Power Circles H.J. Tian and Y.G. Zheng	561
Measurement the Transmission Characteristics of the Power Line Communication Channel Based on Periodic PN Sequence P.L. Zhang and H.X. Zhang	567
A Novel Fault Line Selection Method of Distribution Network Based on Wavelet Packet Energy X.W. Wang, Y.J. Zhang and Y.X. Hou	572

Chapter 6: Mechatronics, Automation, Control, Net and Information Technologies, Simulation and Modelling

Optimized Vehicle Scheduling Algorithm of Distribution Center Z. Wang	581
Community Automatic Irrigation Control System Based on Zigbee J. Li and D.Q. Han	587
Study of Internet of Things in China L. Wang and L.K. Zhu	592
Study of Road Network Traffic Condition Based on Grey Comprehensive Evaluation Model Y.C. Hu	595
Study of Auto-Motive Network Based on CAN-BUS L. Li, C.J. Shan and J. Luo	601
The Study on Wireless Video Monitoring System Based on SOPC J.M. Xu	606
A Simplified Unbalanced Control Strategy of PWM-VSC Based on Line Voltage Calculation Q.F. Zhu, X.B. Fu, S.J. Hu and B. Zhao	611
Integrated Multiple Model-Based H_{∞} Loop-Shaping Control J.J. Du and J.C. Hu	617
Social Security Research under Automation Control F. Liu	621
Automation Control of Group Work Outcome Assessment D.D. Wang	626
Research on Optimal Control and Simulation for Active Suspension Systems Y.F. Qin, J. Hua and L.W. Geng	631
Study on Intelligent Traffic Lights Based on Internet of Things C.J. Xu	636
A Wavelet Spatial Correlation Algorithm to Partial Discharge Denoising Based on MDL Criterion L.S. Tian and W.X. Chen	642
Research of Mine Personnel Positioning System Based on ZigBee C.G. Wang and J.M. Cui	647
Research and Realization of Monitor System of Campus Network Flow B. Xu	652
A Down Hole Safety Management ML2012 System Based on RFID Technology C.Y. Yang and C.Y. Bai	657
Research of Intelligent Traffic Management System D.Y. Fang	662
Navigating Design System with Fallback Support Z. Liu and B. Sun	665
A Flexible Attribute-Based Access Control for the Dynamic Cloud M.M. Li, S. Gao and J.S. Wang	671
Research on Machine Translation System X.W. Feng	676
Interactive Virtual Globe Service System Based on OsgEarth J. Zhu and J.H. Wang	680
Design and Implementation of CABAC Parallelization on Multicore DSP H.X. Jiang, W. Zhao, X.H. Zhang and J.Y. Lu	685
Design of Position System of Underground Mines Based on Zigbee Technology B.D. Zhang and B.S. Su	691
Wireless Position Based on Zigbee Network in High Speed Highway ETC System B.S. Su and B.D. Zhang	696
Automated Alarm Based on Intelligent Visual Analysis Z.H. Li and Q.L. Li	701

Study on the Data Security and Privacy Protection Mechanisms of the Internet of Things W.M. Zhao, R. Wang and X.Z. Zhang	706
VPN Packet Loss-Oriented Dynamic Control S. Li, Q. Zou and W. Huang	710
Fast 3D City Modeling with Unmanned Airship System in Henan Province F.F. Xie, J. Zong and D.D. Wang	715
Study on Traffic Prediction Algorithm Based on Multi-Scale Bi-Orthogonal Wavelet Y. Li and Y. Chen	722
An Improved Genetic Algorithm Based on Cellular Automata H. Tang, Y.S. Ge, X.H. Pan and S.F. We	727
A Fast and Accurate Tag Estimation Algorithm for Dynamic Framed-Slotted ALOHA Based on M/D/1 Queue in RFID Systems H. Song	732
Research on Malicious Behavior of Firmware Based on Hardware Resources Access Control L.K. Yang, D. Chen, J. Mei and L. Xue	737
Integrated Supervisory Control System Based on Distributed Component Management J.W. Du and Y.D. Fang	744
Electronic Guide System Based on SOPC H.L. Shi and D.M. Zhang	749
Study of the Exact Solutions and Chaotic Behaviors in a (2+1)-Dimensional Nonlinear System S.H. Ma	755
Multi-Scroll Chaotic System Based on Even-Symmetric Step-Wave Sequence Control Z.L. Tang and S.M. Yu	760
Lane-Level Positioning Method for 3D In-Vehicle Navigation System L. Zhang, B. Wang, X.Y. Mi and L.F. Yi	767
Recognition of the Analog Modulation Modes X.F. Gao, Y.L. An and Y. Liu	773
Bluetooth Transmission System Based on Embedded Linux Y.P. Zhang	778
Acoustic Target Location Algorithm Based on Zigbee Wireless Sensor Network J.Y. Guan, Y.C. Xu and W.Y. Zhang	783
Design on Manufacturing Engineering Community Monitoring System Based on Wireless Sensor Network S. Wei	787
ASIC Design of Encoding Circuit in Low Frequency Read-only RFID in Manufacturing Engineering P.F. Lai and W.P. Jing	792
On the Application of Open CNC System in Real-Time Operation Z. Min	797
Research on Coal Mine Rescue Robot Model X.C. Wang, X.G. Yue, Q.G. Ren and Z.Q. Zhao	801
Efficient Rebar Count Scheme Based on Image Recognition in Mechanical Engineering Y.L. Lei, J.Z. Yang and Y.H. Zhang	805
The Research of CNC Machine Monitoring System Based on OPC and Configuration T. Chen	809
Research on Elements of Information Conveying Based on Interface Design Y.W. Hao	814
Research of Fault Location in Low-Voltage Distribution Networks Y.J. Zhang and J. Li	819
Design of Smart Rescue Robot Based on ARM Remote Control T.Q. Li and S.G. Wang	824
GPU-Based PSO Application in Multiuser Detection and Trajectory Parameter Estimation L. Sun, H.T. Zhang and X.P. Zhou	829
Study on Urban Environment Color Design L. Yu	833

Processing of Mechanical Parts Based on Virtual Simulation S.M. Wu, J.W. Song and Y.B. Fan	837
Numerical Simulation of the Wind Field of Assembled Steel Truss Bridge H.B. Liu, X.H. He, L. Gao and F. Li	841
Predictive Analysis on Maintenance of Mining Dump Truck Y. Cheng	848
Simulation of Pumping Unit Based on Simulink Z.K. Zhang, L. He and L. Yang	852
Stability and Control Analysis on a Small-Scale Coaxial Helicopter with Bell-Hiller Stabilizer Bar N. Zi and C. Ming	862
Applications of Research and Development of Logging in Oil-Field Visualization Q.H. Li, C.Y. Zhang and Y.F. Zhang	867
Pulse Design for Ultra Wideband System Based on Generalized Gaussian Pulse S. Chen, H.C. Zhao, Y.X. Yang and Y. Chen	871
Study of Signal Distortions on Behavior of Internal Traders T. Chang and L.M. Gong	876
Study on Signal Integrity Simulation for High Speed Serial Rapid IO H.X. Jiang, X.H. Zhang, W. Zhao and J.Y. Lu	881
Computational Research of Internal Temperature Distribution for Liver Tissues under Laser Irradiation G.X. Xiong and H.Y. Zhao	887
Numerical Simulation of Roadway Deformation of Different Cutting Aperture X.M. Gong, J.Y. Zhang and L.W. Guo	892
Influence of Noise to Chaotic Time Series Prediction in Environment Q.J. Shi, Y. Liu, J. Li, H.B. Ma, D.S. Liu and Z.W. Zhang	896

Chapter 7: Green Power and Environment Engineering

Study on the Property Dynamic Filtration Performance of Anthranilic Acid Copper in Environment Engineering X.J. Wang, F. Wang and J. Jin	903
Scheduling Scheme Based on Smart Grid of Energy-Saving K. Zhang	908
Online Monitoring System of Tailing Dam Seepage Line in Abominable Weather O.Y. Wei and W.J. Li	913
Research on Sedimentary Facies of Formation of Neogene in Oilfield X. Xing, F. Cai and W.S. Hu	920
Quality and Safety Warning of Edible Forest Products Based on Gray Forecast Model P. Zhang, Z. Liu and Z.S. Ma	924
Research on Water Pollution Monitoring System H.Y. Li and S.J. Chen	929
Research of High Precision DC Constant Current Source D. Su, Z.H. Zhang and J.P. Zhao	933
Research on Sustainable Environmental Monitoring System Based on GSM W. Zhang	937
Estimating Runoff and Environment Protection in Tao River Basin based on Swat Model K. Xu and H.Q. Peng	942
Soil Heavy Metal Pollution Analysis of City Surface Based on Neural Network J.P. Pei, Z. Tai, S.X. Shuang, X.B. Yu and L. Ran	947
Design and Analysis of the Building Environment Based on DeST Software J. Shu and Y. Wen	952
Non-Point Source Pollution Control Effect Based on Comprehensive Management of Small Watershed L.P. Zhang	957
Research Dry Crop and Irrigation Water Requirement in Environment Engineering X.H. Wang, M.H. Guo and H.M. Liu	961

Mining Exploration of Bauxite Based on High-Power Electrical Method S.F. Fu	966
Research on Algal Bloom Control for Environment Engineering H. Jiang, J.L. Rui, H.L. Li, D.H. Zhao, J.J. Fu and S.Q. An	971
Taxonomic Study on the Genus Lyophyllum in Sustainable Environment Engineering X.Q. Wang, D.Q. Zhou, X.L. Zhang and S.H. Li	975
Design of Intelligent Power Management System Based on Internet of Things Y.Q. Jian, Z.H. Yu and S. Chen	979
Design of Intelligent Green Power Management System Y.S. Du, Z.H. Yu and Y.Q. Jian	984
Analysis of Chinese Renewable Energy Engineering Y.N. Wu and R.H. Xu	988
Environment Protection Based on Internet of Things R. Hu, Y. Wang and F. Wang	993
Study on Efficient Grid Dispatching Scheme in Green Power Engineering S.K. Li, Y. Xu, J.S. Mei and J. Zhang	999
Research on Sustainable Power Distribution Network in Power Engineering P. Wang	1003
Design of Agricultural Intelligent Irrigation System in Green Environment Y.K. Huang	1007
Study on Urban Road Information Indicating System in Green Environment Engineering Y. Chen and Y. Wang	1012
Research of Customer Service Monitoring and Command System in Electric Power Engineering H.B. Yue and F. Zhao	1016
An Improved Direct Learning Architecture for Satellite High Power Amplifiers Pre-Distortion M.Q. Yang, D.X. Guo, X.F. Pan, L. Lu and L. Yang	1020
Miniature Gardening Collection Model in Green Environment Engineering B. Fang	1025
An Improved ID3 Algorithm for Power Equipment in Green Power Engineering X.R. Cheng and Q. Wang	1029
Power Distribution Automation System in Green Power Engineering Y. Jia, Q. Fu, D.S. Ma and M.Y. Zhu	1034
Power Harmonic and Interharmonic Analysis Based on TLS-ESPRIT and PSO Algorithm Z.H. Dou, R.G. Yang, C.F. Gao and Y.J. Wang	1039
Transformation Development and Eco-Environmental Protection of Resource-Exhausted City S.X. Sun, Y.S. Zhu, C.Y. Cai, Y.M. Li, R. Tao and R. Sun	1045
Load Forecasting of Green Power System Based on Data Mining C.Z. Zhou, Y. Yan, H. Zhang, C. Wang and L. Wang	1050
Study on Coal Performance Influence Based on Input-Output Model C. Xu, L.Z. Zhao and K. Wang	1055

? Ynk cfX' bXYI

5i h cf' bXYI