

# Lecture Notes in Electrical Engineering

---

Volume 134

Dehuai Zeng (Ed.)

# Advances in Electrical Engineering and Electrical Machines



Springer

Prof. Dehuai Zeng  
Shenzhen University  
Nanhai Ave 3688  
518060 Shenzhen Guangdong  
China, People's Republic  
E-mail: zengdh2008@gmail.com

ISBN 978-3-642-25904-3

e-ISBN 978-3-642-25905-0

DOI 10.1007/978-3-642-25905-0

Lecture Notes in Electrical Engineering ISSN 1876-1100

Library of Congress Control Number: 2011943326

© 2011 Springer-Verlag Berlin Heidelberg

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilm or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

The use of general descriptive names, registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

*Typeset* by Scientific Publishing Services Pvt. Ltd., Chennai, India.

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

springer.com

# ICEEE 2011 Preface

Electrical and Electronic Engineering is an exciting and dynamic field. Electrical engineering is responsible for the generation, transfer and conversion of electrical power, while electronic engineering is concerned with the transfer of information using radio waves, the design of electronic circuits, the design of computer systems and the development of control systems.

With success of ICEEE 2010 in Wuhan, China, and December 4 to 5, 2010, the second International Conference of Electrical and Electronics Engineering (ICEEE 2011) will be held in Macau, China, and December 1 to 2, 2011. ICEEE is an annual conference to call together researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Electrical and Electronics Engineering along with Computer Science and Technology, Communication Technology, Artificial Intelligence, Information Technology, etc.

This year ICEEE is sponsored by International Industrial Electronics Center, Hong Kong. And based on the deserved reputation, more than 750 papers have been submitted to ICEEE 2011, from which about 282 high quality original papers have been selected for the conference presentation and inclusion in the proceedings based on the referees' comments from peer-refereed.

All the accepted paper are in the topics of Biotechnology, Power Engineering, Telecommunication, Control engineering, Signal processing, Integrated circuit, Electronic amplifier, Nano-technologies, Circuits and networks, Microelectronics, Analog circuits, Digital circuits, Nonlinear circuits, Mixed-mode circuits, Circuits design, Silicon devices, Thin film technologies, VLSI, Sensors, CAD tools, DNA computing, Molecular computing, Superconductivity circuits, Antennas technology, System architectures, etc. We expect that the conference and its publications will be a trigger for further related research and technology improvements in this importance subject.

We would like to express my deeply appreciations and thanks to Prof. Jun Wang for his high quality keynote speech, and to all contributors and delegates for their support and high quality contributions. Special thanks go to Springer Publisher.

We hope that ICEEE 2011 will be successful and enjoyable to all participants. We look forward to seeing all of you next year at the ICEEE 2012.

Dehuai Zeng

# ICEEE 2011 Committee

## Honorary Conference Chair

Jun Wang                                The Chinese University of Hong Kong, Hong Kong

## General Chairs

Jian Li                                    Nanchang University, China  
Lei Yang                                 International Industrial Electronics Center, Hong Kong

## Program Chair

Jin Chen                                 Wuhan University of Technology, China

## Publication Chair

Dehuai Zeng                            Shenzhen University, China

## Program Committees

|                |  |
|----------------|--|
| Yiyi Zhouzhou  | Azerbaijan State Oil Academy, Azerbaijan         |
| Garry Zhu      | Thompson Rivers University, Canada               |
| Ying Zhang     | Wuhan University, China                          |
| Dehuai Zeng    | Shenzhen University, China                       |
| Srinivas Aluru | ACM NUS Singapore Chapter, Singapore             |
| Tatsuya Akutsu | ACM NUS Singapore Chapter, Singapore             |
| Aijun An       | National University of Singapore, Singapore      |
| Qinyuan Zhou   | Jiangsu Teachers University of Technology, China |
| Mark Zhou      | Hong Kong Education Society, Hong Kong           |
| Tianbiao Zhang | Huazhong Normal University, China                |

# Contents

## Electrical and Electronics Engineering

|  |           |
|--|-----------|
| <b>A Note on Poles and Zeros of Positive Continuous-Time Linear Systems . . . .</b>  | <b>1</b>  |
| <i>Jerzy Tokarzewski</i>   |           |
| <b>A Robust Adaptive Beamforming Algorithm Based on SVD . . . . .</b>  | <b>11</b> |
| <i>Hongtao Li, Yapeng He, Xiaohua Zhu</i>  |           |
| <b>Modular FPGA-Based Digital Multi-beamforming Intermediate<br/>Frequency Receiver for Radar . . . . .</b>                      | <b>19</b> |
| <i>Hongtao Li, Shanna Zhuang, Yapeng He, Xiaohua Zhu</i>   |           |
| <b>Stator Temperature Distribution Based on Fluid Field for Induction<br/>Motor with Non-sinusoidal Supply . . . . .</b>         | <b>27</b> |
| <i>Xiaoqin Zheng, Xinzhen Wu</i>   |           |
| <b>The Hardware Simulation for the Interferometric Fiber-Optic<br/>Hydrophone Signals . . . . .</b>                              | <b>35</b> |
| <i>Dongpeng Lei, Shuang Wu, Li Zhou</i>  |           |
| <b>Wavelet Transform Time-Frequency Analysis Method for the<br/>Time-Varying Non-stationary Signals . . . . .</b>                | <b>43</b> |
| <i>Zhang Guoyuan, Wei Junchao, Chen Yao, Yan Xiutian</i>   |           |
| <b>Adaptive Rate Protocol for LDPC Coded Slow Frequency Hop System . . . . .</b>   | <b>51</b> |
| <i>Chao Gong, Aijun Liu, Bangning Zhang, Daoxing Guo</i>   |           |
| <b>Application of Pheromone-Shared Particle Swarm Optimization for<br/>Power Flow Transferring Control . . . . .</b>             | <b>57</b> |
| <i>Xiao-Dong Shen, Jun-yong Liu, Yan Liu</i>   |           |
| <b>Moving Vehicle Detection Combined Contourlet Transform with Frame<br/>Difference in Highways Surveillance Video . . . . .</b> | <b>65</b> |
| <i>Chuangxin Wang</i>  |           |

|  |     |
|--|-----|
| <b>Application and Realization of Real-Time One Key Phase-Calibration for TT&amp;C Antenna</b> .....   | 73  |
| <i>Tao Zhang, Jiadong Liu, Zhengquan Ang, Yuwen Cao</i>  |     |
| <b>Simulation Resource Dynamic Interactive Framework Research HLA-Based under Grid Environment</b> .....   | 79  |
| <i>Dou Zhi-wu</i>  |     |
| <b>Large Equipment Condition Monitoring Based on Reference Power Curve Fitting by Multi-sensors Fusion</b> .....   | 85  |
| <i>Zhenyu Gu, Jiajia Zheng, Yan He, Jun Liu</i>  |     |
| <b>Research on Positioning System of Coal Mine High Voltage Grid Failure Points</b> .....  | 91  |
| <i>Xiangzhong Meng, Hailong Feng, Yuntao Yu, Teng Zhang</i>  |     |
| <b>Generation of Current-Mode Power Law Function and AM Modulator/Demodulator Using Configurable Analog Blocks (CABs) for Field Programmable Analog Arrays</b> ..... | 99  |
| <i>Muhammad Taher Abuelma'atti, Osama Oglah Fares</i>  |     |
| <b>Harmonic and Intermodulation Performance of RF MEMS Variable Capacitors</b> .....   | 107 |
| <i>Muhammad Taher Abuelma'atti</i>   |     |
| <b>Bi-state Modulation for High Speed On/Off Solenoid Valve</b> .....  | 115 |
| <i>Ye Fuhao, Chen Huiyan, Tao Gang, Liu Yuwei</i>  |     |
| <b>Surface Charge Change in Contact Lens Materials</b> .....   | 123 |
| <i>Stanisława Szarska, Katarzyna Płatek</i>  |     |
| <b>An Automatic Gain Control Circuit for a Single-Chip UHF RFID Reader Transceiver</b> .....   | 133 |
| <i>Wang Wenbo, Mao Luhong, Xiao Xindong, Chen Yan, Zhang Shilin, Xie Sheng</i>   |     |
| <b>Available Power Analysis for Background Tasks on Ubiquitous Sensor and Actuator Networks</b> .....  | 141 |
| <i>Junghoon Lee, Cheol Min Kim, Ho-Young Kwak, Jikwang Han</i>   |     |
| <b>Randomization Effect Measurement on the Fast Power Consumption Scheduler</b> .....  | 147 |
| <i>Junghoon Lee, Gyung-Leen Park, Hye-Jin Kim, Min-Jae Kang, Eel-Hwan Kim, Moo Yong Lee</i>  |     |
| <b>A Real-Time Programmable Amplifier System Designed by Using CPLD</b> . . .  | 153 |
| <i>Bo Fu, Guangmin Sun, Kun Ren, Dongge Han, Bo Peng, Dequn Zhao</i>   |     |

|   |     |
|---|-----|
| <b>Complex Network-Based Fault Propagation Modeling for Analog Circuits</b> .....   | 161 |
| <i>Minfang Peng, Meie Shen, Jiajia Wang</i>   |     |
| <b>China Aviation Electronic Miscellaneous Document System</b> .....  | 167 |
| <i>Xinming Wang, Mingzhan Lv</i>  |     |
| <b>A Hydrogen Thyatron Pulsed Power Source Applied to Treatment of Phenol Combined with TiO<sub>2</sub> Photocatalyst</b> ..... | 173 |
| <i>Yi Zhang, Qin Xin, Hengtao Xu</i>  |     |
| <b>A Broadband Proximity-Coupled Cavity-Backed Microstrip Antenna with Stacked Slot Patches</b> .....                           | 181 |
| <i>Dan Sun, Wenbin Dou, Xuequan Yan</i>   |     |
| <b>A Modified ACO Algorithm for the Pattern Synthesis of Array Antennas</b> ...   | 189 |
| <i>Ke Tenglong, Zhao Xiaoying, Wu Jian, Ding Yihan</i>  |     |
| <b>Adsorption of Microcystin-LR by Carbon Xerogel</b> .....   | 197 |
| <i>Qing Xin, Yi Zhang, Gaofeng Yan</i>  |     |
| <b>Investigation of the Improvement and Control Strategy of the Energy-Storage Regeneration Braking on Metro Vehicle</b> .....  | 205 |
| <i>Jisheng Hu, Wenyan Zhang, Yelin Du, Jie Ma</i>   |     |
| <b>Research on Water Cooling of Power Modules for Electric Vehicles</b> .....   | 213 |
| <i>Wang Bingyuan, Liu Lei, Dou Ruzhen</i>   |     |
| <b>Low Error, Efficient Fixed Width Squarer Using Hybrid LUT-Based Architecture</b> .....                                       | 223 |
| <i>Van-Phuc Hoang, Cong-Kha Pham</i>  |     |
| <b>Development of FPGA-Based Ground-Penetrating Radar Receiver</b> .....  | 231 |
| <i>Huimin Yu</i>  |     |
| <b>A Data Allocation Method in Multi-processors Task Scheduling Procedure</b> .....   | 239 |
| <i>Chao Wang, Wei Liu, Pei-yuan Yuan</i>  |     |
| <b>Effect of Reference Generation Schemes on the Performance of Shunt Active Filter: A Comparison</b> .....                     | 253 |
| <i>S. Srinath, M.P. Selvan</i>  |     |
| <b>Heat Transfer Model of Vertical Geothermal Heat Exchanger and Calculation Process</b> .....                                  | 261 |
| <i>Li Qiang, Sun Youhong</i>  |     |
| <b>Development of Double-Position and Handheld Auto-screw Driving Machine</b> .....   | 267 |
| <i>An Hai-xia, Yan Hong, Gao Chao</i>   |     |



|   |     |
|---|-----|
| <b>Analysis of the Influence of Contact Position to the ESD Protection Ability in Ggnmos Device</b> .....   | 273 |
| <i>Peng Zhang, Yuan Wang, Song Jia, Xing Zhang</i>  |     |
| <b>Bit Error Probability of <math>M</math>-Ary PSK with MRC Diversity Reception over Nakagami-<math>m</math> Fading Channel Using Simple Bounds on Gaussian <math>Q</math>-Function</b> ..... | 279 |
| <i>Vinay Kumar Pamula, Srinivasa Rao Vempati, Anil Kumar Tipparti</i>   |     |
| <b>MLA Piezoelectric-Mechanical Systems: Modelling and Simulation</b> .....   | 287 |
| <i>Paolo Righettini, Mauro Forlani, Roberto Strada, Alberto Oldani, Andrea Ginammi</i>  |     |
| <b>Measurement Effects Study of Microphone on Fluctuating Pressure of Boundary Layer</b> .....  | 297 |
| <i>Yang Guangjun, Bai Cunru, Pan Kai, Sun Jing, Xu Fei</i>  |     |
| <b>Design Research on LTCC Band Pass Filter</b> .....   | 305 |
| <i>Nan He, Huan Sha, Yuanchun Fei</i>   |     |
| <b>A New Design of Low Power Asynchronous Comparator</b> .....  | 311 |
| <i>Xiaobo Jiang, Fangyuan Li</i>  |     |
| <b>Design Methodology of Asynchronous Comparator/Mux</b> .....  | 321 |
| <i>Xiaobo Jiang, Desheng Ye</i>   |     |
| <b>Preparation and Characterization of the Cu(In, Al)Se<sub>2</sub> Absorber</b> .....  | 329 |
| <i>Jianping Ma, Yaming Li, Yantao Liu</i>   |     |
| <b>Characterization of CuInS<sub>2</sub> Thin Films Prepared by Sulfurization of the Cu-In Precursors</b> .....   | 337 |
| <i>Jianping Ma, Yang Gao, Yantao Liu</i>  |     |
| <b>Design of High Voltage Signal Processing System of Fiber Current Transducer</b> .....  | 345 |
| <i>Chunrong Jia, Zhigang Di, Jingxuan Zhang</i>   |     |
| <b>Electric Circuit and Magnetic Circuit Combined Model of Three-Phase Three-Legged Transformer under DC Bias</b> .....   | 353 |
| <i>Xia Dong, Zhizhen Liu, Linlin Sun</i>  |     |
| <b>Intelligent Electric Ammeter Based on Impedance Discrimination Algorithm</b> .....   | 361 |
| <i>Jia-Zu Xie, Wei Song, Zhao-Jun Liu</i>   |     |
| <b>Chaos and Its Communication Application in a Fractional-Order Dissipative Nonautonomous Chaotic System</b> .....   | 367 |
| <i>Zhenqiang Zou, Shangbo Zhou, Hua Li</i>  |     |

|   |     |
|---|-----|
| <b>Research on Bottom Blowing Converter System</b> .....  | 375 |
| <i>Xiaoxia Guo, Xianke Wang, Risheng Sun</i>  |     |
| <b>Study on Production Process of Desalted Water System</b> .....   | 381 |
| <i>Xiaoxia Guo, Ye Yuan, Risheng Sun, Xiao Liu</i>  |     |
| <b>Missing Component Detection on PCB Using Neural Networks</b> .....   | 387 |
| <i>Marzieh Mogharrebi, Anton Satria Prabuwono, Shahnorbanun Sahran, Amirhossein Aghamohammadi</i>                               |     |
| <b>Load-Balanced and Link-Disjoint Multipath Routing for Wireless Sensor Networks</b> .....                                     | 395 |
| <i>Yu Huang, Leilei Yu</i>  |     |
| <b>Passive UHF RFID Tag for Cigarette Pack Identification</b> .....   | 405 |
| <i>Suzhen Wang, Gang Wang</i>   |     |
| <b>ZVS Boost Converter with Wide ZVS Range</b> .....  | 413 |
| <i>Hyun-Lark Do</i>   |     |
| <b>A Passive Lossless Snubber Applied to Power Factor Correction Boost Converter</b> .....                                      | 419 |
| <i>Hyun-Lark Do</i>   |     |
| <b>Estimating End-to-End Available Bandwidth with Single End Host</b> .....   | 425 |
| <i>Hui Zhou, Wencai Du</i>  |     |
| <b>Efficient CDNs Cost-Based Management Policy for Digital Content Delivery</b> .....   | 433 |
| <i>María Elizabeth Aldana D'áz, Biao Song, Eui-Nam Huh</i>  |     |
| <b>A New Method of Power Distribution Network Planning for Obstacle Bypass Based on Ant Colony Optimization Algorithm</b> ..... | 445 |
| <i>Xucheng Huang, Xuzheng Chai</i>  |     |
| <b>A Novel Signal-Mapping Based LVDT Signal Conditioner</b> .....   | 453 |
| <i>Hyo-moon Cho, Jin-ho Son, Jong-hwa Lee</i>   |     |
| <b>Normalized Numerical Image Descriptor Based on Histogram Calculation</b> .....   | 463 |
| <i>Hyo-moon Cho, Yu-yung Park, Sang-bock Cho</i>  |     |
| <b>Advanced Super Resolution Algorithm for Large Movement Image</b> .....   | 473 |
| <i>Hyo-moon Cho, Seung-hoon Kim, Hang-ki Ryu</i>  |     |
| <b>Top-View Surrounding Monitor System Using Modified-SIFT Based Stitching Method with Obstacle Detection</b> .....             | 483 |
| <i>Muzaffar Djalalov, Telman D. Radjabov</i>  |     |

|  |     |
|--|-----|
| <b>Multi-objective Optimization of Parallel Hybrid Electric Vehicles Based on SPEA2</b> .....  | 489 |
| <i>Pi Zhenchao, Yang Guanci, Li Shaobo, Qu Jinglei</i>   |     |
| <b>Analytical Investigation on Static Hydrostatic Bearing by Fluent</b> .....  | 497 |
| <i>Xu Shu</i>  |     |
| <b>The Design of New Radiator in Electronic Device</b> .....   | 505 |
| <i>Shu Xu</i>  |     |
| <b>Production Planning for Hybrid Remanufacturing and Manufacturing System with Component Recovery</b> .....                                     | 511 |
| <i>Mengyuan Dong, Shuixiu Lu, Shuihua Han</i>  |     |
| <b>Intelligent Sensor Network for Physical Quantities Measurement</b> .....  | 519 |
| <i>Miroslav Husak, Adam Boura, Vladimir Janicek</i>  |     |
| <b>Cyber-Crimes: Challenges of the Millennium Age</b> .....  | 527 |
| <i>Rashad Yazdanifard, Tele Oyegoke, Arash Pour Seyedi</i>   |     |
| <b>An Mixed Clustering Algorithm and Its Application in Questionnaire Analysis</b> .....   | 535 |
| <i>Zhu Yan-li, Li Xue-yong, Li Shi-yong, Miao Guo-yi</i>   |     |
| <b>Segmentation of C2C Customer Using RFM Model</b> .....  | 541 |
| <i>Jiaying Xiong, Leiyue Yao</i>   |     |
| <b>Anomalous Collusion Detection in Third Party Payments Using K-Means Cluster</b> .....   | 549 |
| <i>Jiaying Xiong, Leiyue Yao</i>   |     |
| <b>Research on Parallel Computing Performance Based on Clusters</b> .....  | 557 |
| <i>Li Geng, Wang HaiTao</i>  |     |
| <b>Prevention and Study on Agricultural Non-point Source Pollution in China</b> .....  | 565 |
| <i>Jihong Zhou, Zhen Gao, Hui Ma, Weixia Chen</i>  |     |
| <b>Preliminary Study on Vulnerability Assessment of Water Resource</b> .....   | 571 |
| <i>Jihong Zhou, Hui Ma, Zhen Gao, Weixia Chen</i>  |     |
| <b>An Approach to Computing Similarity Degree between Chinese Articles Based on Tolerance Granular Computing Model and Its Application</b> ..... | 577 |
| <i>Rao Fen, Li Xiangjun, Liu Tao, Qiu Taorong, Tao Qiuping</i>   |     |
| <b>Dynamic Maintenance for On-demand Routing in Multi-hop Wireless Ad Hoc Networks</b> .....   | 589 |
| <i>Guikai Liu, Qian Deng, Hongjiang Wang</i>   |     |

|  |     |
|--|-----|
| <b>Increase Neighborhood Intercourse by Functional Space Guiding</b> . . . . .   | 599 |
| <i>Jing Ma, Wei Wang</i>   |     |
| <b>The Research of Traditional Architecture on the Neighborhood Interaction</b> . . . . .  | 605 |
| <i>Jing Ma, Wei Wang</i>   |     |
| <b>Almost-Good Delaunay Tetrahedron Modeling for Surgery Simulation</b> . . . .  | 611 |
| <i>Yanbo Li, Tianchi Zhang, Jing Zhang, Guisheng Yin, Jun Ni</i>   |     |
| <b>Research of Building the Services Oriented Supervising and Learning Relationship between the Supervisors and Students</b> . . . . .             | 623 |
| <i>Fan Jun, Deng Feng-tian, Gu Chun-mei</i>  |     |
| <b>Research on Manufacturing and Logistics Linkage Development Based on the Grey Correlation Model – Case Study of Zhejiang Province</b> . . . . . | 631 |
| <i>Fan Jun, Lin Lei-shan, Gu Chun-mei</i>  |     |
| <b>Fuzzy Evaluation of the Risk of New Energy Enterprise Based on Trapezoidal Fuzzy Numbers Similarity</b> . . . . .                               | 639 |
| <i>Yonggui He, Yunqiao Ti, Dan Wang</i>  |     |
| <b>A Structural Countersignature Scheme of Electronic Documents Based on the Semi-trusted Third Party</b> . . . . .                                | 647 |
| <i>Xiao-han Sun</i>  |     |
| <b>Tendering Assessment of Hydraulic Projects Based on Variable Weight Method</b> . . . . .  | 653 |
| <i>Ruojun Yao</i>  |     |
| <b>Study on Government Incentives and Enterprise Technological Innovation Based on Evolutionary Game</b> . . . . .                                 | 659 |
| <i>Xia Zhu</i>   |     |
| <b>Study of Wireless Network Traffic Model and Design of Traffic Generation Method Based on OPNET</b> . . . . .                                    | 667 |
| <i>Lu Ying, Kang Feng-ju, Zhong Lian-jiong, liang Xiang-yang</i>   |     |
| <b>Annual Index Analysis on R&amp;D Input-Output Efficiency of Faculties in Huazhong Normal University</b> . . . . .                               | 675 |
| <i>Yang Hai, Mei Deping, Tian Ting, Li Wenjing</i>   |     |
| <b>Study on the Correlation of Survival State and Mental Health of Knowledge-Type Employee</b> . . . . .   | 683 |
| <i>Jianming Zhao, Jian Hua</i>   |     |
| <b>How do Service Marketing Factors Influence Fund Investment Behavior?</b> . . . . .  | 691 |
| <i>Minxue Huang, Ziyin Zhao, Xuechun Zhou, Shanshan Xu</i>   |     |

|   |     |
|---|-----|
| <b>Research on the Contribution of Labor Flow to Economic Growth:<br/>An Effective Labor Model</b> .....  | 699 |
| <i>Song Guoyu, Sun Qingli</i>   |     |
| <b>Research on Spreading and Sharing of Knowledge from Sciencepaper<br/>Online to Wikipedia</b> .....   | 707 |
| <i>Xin Jin, Xin Zhou</i>  |     |
| <b>Research on IT Innovation Concepts Diffusion with Analysis<br/>of Discourse</b> .....  | 715 |
| <i>Xin Jin</i>  |     |
| <b>Research on Take an Examination of Oneself Potential Candidates Intend<br/>Empirical—Take Colleges in Sichuan as Example</b> .....                         | 723 |
| <i>Chen Dong, Xiao Hong An</i>  |     |
| <b>The Portuguese Management Model of Financial Relation between<br/>the Third Sector and the Welfare State, Applied to Educational<br/>Environment</b> ..... | 731 |
| <i>Sofia Cheis Gil, Joaquim Croca Caeiro</i>  |     |
| <b>A Studying on the Status of International Hot Money and Management<br/>Countermeasures in China</b> .....  | 739 |
| <i>Zhouyan Jiang</i>  |     |
| <b>Multilayer Neural Network Model for Safe Evaluation of Amusement<br/>Ride</b> .....  | 747 |
| <i>Yuan Xiao, Jian Guan, Jianping Ye</i>  |     |
| <b>Research on Urban Community Sport Service Management Mode of the<br/>Grids</b> .....   | 755 |
| <i>Jiliang Fu, Yongliang Huang</i>  |     |
| <b>Constructing of Security System to Urban Sustainable Development</b> .....   | 761 |
| <i>Zhu Jingxiu</i>  |     |
| <b>Author Index</b> .....   | 769 |