

# Contents

## Part I   Electrical Engineering and Applications

<b>1</b>	<b>Circuit Design of Panel Points Based on Zigbee . . . . .</b>	<b>3</b>
	JianMing Shen and HongLi Wei	
<b>2</b>	<b>Metaphor-Based Interaction Design in Lighting Area. . . . .</b>	<b>11</b>
	Xing Gao and Liangzhi Li	
<b>3</b>	<b>Research on Scattering of Weekly Lossy Homogeneous Gyrotropic Elliptic Cylinder . . . . .</b>	<b>19</b>
	Shi-Chun Mao, Fan Wang and Zhen-Sen Wu	
<b>4</b>	<b>Research of Novel Circular Grating . . . . .</b>	<b>25</b>
	Peng Guo, Hua Zou, Funing Chen, Chunmei Tang and Kaixiao Zhang	
<b>5</b>	<b>Research on Doctrine of Linear Polarized Photon Pairs. . . . .</b>	<b>31</b>
	Xiaopeng Zhang and Duanyin Shi	
<b>6</b>	<b>Influential Factors Analysis of Frequency Domain Inverse Q Filtering Based on Effective Quality Factor . . . . .</b>	<b>41</b>
	Xueying Li, Huijian Wen and Guangjuan Fan	
<b>7</b>	<b>Hilbert–Huang Transform Based Partial Discharge Signal Analysis . . . . .</b>	<b>49</b>
	Hung-Cheng Chen	
<b>8</b>	<b>Design of Image Acquisition System Based on FPGA. . . . .</b>	<b>57</b>
	Guili Han, Zhongxian Li and Xiaoyu Liu	

<b>9</b>	<b>Research on Channel Estimation of MIMO-OFDM System . . . .</b>	<b>67</b>
	Wei Li, Xiaoping Wang, Pei Gu and Dongqing Wang	
<b>10</b>	<b>Abdomen CT Image Segmentation Based on MRF and Ribs Fitting Approach . . . . .</b>	<b>75</b>
	Huiyan Jiang, Zhiyuan Ma, Mao Zong, Hiroshi Fujita and Xiangrong Zhou	
<b>11</b>	<b>Sunglasses Styling Optimization System Based on User Interactions . . . . .</b>	<b>83</b>
	Haiying Li, Xiaodong He, Jianfeng Wu and Xiaojian Liu	
<b>12</b>	<b>Design of Maintenance System for UPS . . . . .</b>	<b>91</b>
	Feng Zhao, Qin Wang and Jian He	
<b>13</b>	<b>Characteristics and Methods of Southern Henan Power Grid Planning . . . . .</b>	<b>99</b>
	Menglan Huang and Yaoxian Li	
<b>14</b>	<b>Analysis of Different Connection Modes in MV Distribution Systems . . . . .</b>	<b>107</b>
	Xiao Qin	
<b>15</b>	<b>Fault Diagnosis of Power Electronic Circuits Based on BP Neural Network . . . . .</b>	<b>115</b>
	Danjun Wu, Li Ping and Youping Fan	
<b>16</b>	<b>Study on Leaves of Three-Dimensional Modeling Technology Based on CAXA . . . . .</b>	<b>121</b>
	Xinjian Xu	
<b>17</b>	<b>Variational Half Bridge Series Resonance Intermediate Frequency Induction Heating Power Supply . . . . .</b>	<b>129</b>
	Wei-gong Kong, Li-rong Li and Hui-shan Han	
<b>18</b>	<b>Translators Power Release Under Suppression of Power . . . . .</b>	<b>135</b>
	Weike He	

## **Part II Web Science, Engineering and Applications I**

<b>19</b>	<b>Adaptive Recommendation Algorithm Based on the Bayesian-Network . . . . .</b>	<b>145</b>
	Jianqiong Xiao, Jiangjin Gao and Guoqin Song	

<b>20</b>	<b>On Hexagon Number Part Residue of a Positive Integer . . . . .</b>	<b>153</b>
	Mingjun Wang	
<b>21</b>	<b>Beam-Wave Interaction Simulation of Rectangular Helix Traveling Wave Tube . . . . .</b>	<b>159</b>
	Chengfang Fu	
<b>22</b>	<b>On Edge Szeged Index of Bridge Graphs. . . . .</b>	<b>167</b>
	Fuqin Zhan and Youfu Qiao	
<b>23</b>	<b>Speech Enhancement Algorithm Based on Hilbert-Huang and Wavelet . . . . .</b>	<b>173</b>
	Jin Li, Fu Liu, Huiyan Xu and Feile Wang	
<b>24</b>	<b>Huang Diffuse Scattering from Small Planar Dislocation Loops . . . . .</b>	<b>179</b>
	Zhongfu Zhou, Yaru Zhang, Adrian P. Sutton, Sergei L. Dudarev, Michael L. Jenkins, Mark A. Kirk, George N. Greaves and Lixin Xiao	
<b>25</b>	<b>Vector Mathematical Morphology for Color Image Processing . . . . .</b>	<b>187</b>
	Bo Tao and Lin Zhang	
<b>26</b>	<b>Study of Cost Reduce Scheme of Enterprise Logistics Purchasing . . . . .</b>	<b>195</b>
	Meili Tian	
<b>27</b>	<b>Research on Zombie Network . . . . .</b>	<b>205</b>
	Hongling Gou	
<b>28</b>	<b>Study of Initiation Network Monitoring System Based on LabVIEW Platform . . . . .</b>	<b>213</b>
	Jie Liu, Yujie Wang, Genzhao Chang, Xiaohu Li, Shaofeng Ren and Zhigang Liu	
<b>29</b>	<b>Zero Digital Images Watermarking Method Based on Cellular Neural Network and Contourlet Transform. . . . .</b>	<b>219</b>
	Jie Zhao and Yawen Li	
<b>30</b>	<b>Research on Teaching Reform on Tourism Specialty Under the Network Environment . . . . .</b>	<b>227</b>
	Jing Chen	

<b>31</b>	<b>Unity Retrieval Technology of Universities Heterogeneous Data</b> . . . . .	235
	Xiaoxiao Liang, Shiwen Li, Chong Gang Wei, Jiang Ma and Yi Luo	
<b>32</b>	<b>Web Services Discovery Based on Service Description</b> . . . . .	243
	Wang Min, Rong Chen and Rongrong Shi	
<b>33</b>	<b>Tactical Internet Reliability Evaluation with Variable Radio Transmission Range</b> . . . . .	253
	Xuewang Wang, Ning Huang, Rui Kang and Zhitao Wu	
<b>34</b>	<b>Design of Wireless Auto Monitor System on Transfusion</b> . . . . .	261
	Jiang Ma, Shunling Chen, Yuqiao Wen, Xiaoxiao Liang, Chonggang Wei and Jing Lan	
<b>35</b>	<b>A Correlation Analysis Method for Network Security Events</b> . . .	269
	He Wei	
<b>36</b>	<b>Research on Mode of English Teaching and Learning Based on Multimedia Network</b> . . . . .	279
	Shan Chang	
<b>37</b>	<b>Research of Ideological and Political Education in Independent Colleges Under Network Environment</b> . . . . .	287
	Jianming Lu, Jinping Wang and Yingzhong Li	
<b>38</b>	<b>Implementation of Teaching Management System Based on the Web</b> . . . . .	297
	Qiang Liu	
<b>39</b>	<b>Research on Ideological and Political Education Based Mobile Internet</b> . . . . .	305
	Yu Zhang	
<b>40</b>	<b>Campus Safety Culture Construction Under the Network Environment</b> . . . . .	313
	Xue Li	
<b>41</b>	<b>Analysis and Practice of Integrated Curriculum System Model of English Teaching</b> . . . . .	321
	Ning Zhang and Zehua Wu	

<b>42</b>	<b>Research on Education Model of and Diversity Based on Mathematical Statistic Law . . . . .</b>	<b>329</b>
	Junling Wei and Chenling Li	
<b>43</b>	<b>Robustness of Complex Heterogeneous Networks Under Node Weighting Strategies Against Cascading Failures . . . . .</b>	<b>337</b>
	Lin Ding and Si-Ying Zhang	
<b>44</b>	<b>Algorithm of Webpage Update Detection Based on Body Text . . . . .</b>	<b>345</b>
	Guowei Chen and Pengzhou Zhang	
<b>45</b>	<b>Research on Enterprise Application System Integration Based on Web Services and Agent. . . . .</b>	<b>353</b>
	Xin Jin and Xu Zhao	
<b>46</b>	<b>Study of Certainty Factor Model in Attribute Mining . . . . .</b>	<b>361</b>
	Yanfeng Jin, Yongping Wang, Keming Geng and Baozhu Zhao	
<b>47</b>	<b>Structured Dictionary Learning Based on Composite Absolute Penalties. . . . .</b>	<b>367</b>
	Jiawen Wang and Hongbin Zhang	
<b>48</b>	<b>Research of College English Teaching Based on Computer Network Technology . . . . .</b>	<b>375</b>
	Qing-hua Yang	

### **Part III Sports Management and Application I**

<b>49</b>	<b>Research on Arms Kinetics in Basketball Penalty of Chinese Wheelchair Athlete . . . . .</b>	<b>385</b>
	Bin Gao, Weimin Sun and Zhilong Zhao	
<b>50</b>	<b>Fosbury Flop Technology Based on Mechanical Analysis Method . . . . .</b>	<b>391</b>
	Sufei Yang, Peng Pu and Chao Fan	
<b>51</b>	<b>Experimental Study on Influence on University Male Students Psychological Health by Playing Basketball. . . . .</b>	<b>399</b>
	Jianliang Wang	

<b>52</b>	<b>Research of Role and Practice in Pulse-Measuring in Sports Train. . . . .</b>	<b>407</b>
	Yu Jiang	
<b>53</b>	<b>Research on Biomechanics Technology Based on the Tennis Sports. . . . .</b>	<b>415</b>
	Fengling Li, Kelei Li and Jingjing Lv	
<b>54</b>	<b>Analysis of Tai Chi on Pulse Wave Velocity. . . . .</b>	<b>421</b>
	Chuanguo Li	
<b>55</b>	<b>Research of Jumping Ability and Explosive Power Based on Plyometric Training. . . . .</b>	<b>427</b>
	Xiaocheng Zhang	
<b>56</b>	<b>Research on Sun Sports and Relationship between Physical and Mental Health . . . . .</b>	<b>435</b>
	Changjun Tian	
<b>57</b>	<b>Cultivating Pattern of Managerial and Administrative Personnel in Sport Industry . . . . .</b>	<b>443</b>
	Pan Li	
<b>58</b>	<b>Research on Effects on Women's Breast in Sports Bra. . . . .</b>	<b>451</b>
	Kun Jiang and Yanxiang Ni	
<b>59</b>	<b>Research of CAS in Physical Training. . . . .</b>	<b>457</b>
	Fang-Yu Wang	
<b>60</b>	<b>Research on Coupling Mechanism and Analysis on Effect Factors of Taichi Exercise . . . . .</b>	<b>465</b>
	Jingyi Wu, Yichen Wang and Yan Chen	
<b>61</b>	<b>Humanistic Value of Sport and Spirit of Sports. . . . .</b>	<b>471</b>
	Li-mei Zheng	
<b>62</b>	<b>Study on Characteristics and Value of Ethnic Minorities Eco-Sports . . . . .</b>	<b>477</b>
	Hui-Jun Gao	
<b>63</b>	<b>Research on Declining Credit of Chinese Professional Athletes. . . . .</b>	<b>485</b>
	Dawei Li and Ying Qi	

<b>64</b>	<b>Research of Sport Videography Technology on Formula One Grand Prix . . . . .</b>	<b>493</b>
	Mingming Cai and Jiang Li	
<b>65</b>	<b>Research on Chinese Athletes Age Fraud Scandal . . . . .</b>	<b>501</b>
	Ying Qi	
<b>66</b>	<b>Research of Teaching Environment of P.E. . . . .</b>	<b>509</b>
	Lu Chen, Qiang Zhang, Shuai Chen and Quanzhong Zhao	
<b>67</b>	<b>SWOT Analysis and Development Strategies on the Chinese Wushu . . . . .</b>	<b>517</b>
	Hongchang Li and Hongyu Li	
<b>68</b>	<b>Research on Sports Pragmaticity in Higher Education Reform . . . . .</b>	<b>525</b>
	Mingchang Liu and Liuhe Wang	
<b>69</b>	<b>Study on Interactive Division Teaching Method in Sports Dance Compulsory Class of Physical Education . . . . .</b>	<b>533</b>
	Hua Tan and Wanfeng Xia	
<b>70</b>	<b>Multifunctional Swimming Strokes Assistantship Design . . . . .</b>	<b>539</b>
	Tie-xiong Zhang, Hong-mei Wen, Ting-ting Long and Zheng-ping Wan	
<b>71</b>	<b>Practical Application of Creative Education in College Football Teaching . . . . .</b>	<b>545</b>
	Faqiang Qiu and Yi Zhou	
<b>72</b>	<b>Psychological Coping with Impact Response of Sports Materials . . . . .</b>	<b>553</b>
	Jingwen Lu	
<b>73</b>	<b>Research on Family Sports and Its Enlightenment . . . . .</b>	<b>559</b>
	Qing Lan	
<b>74</b>	<b>Characteristics Analysis of Satisfaction Degree of Sports Public Service . . . . .</b>	<b>565</b>
	Dongyun Fan	
<b>75</b>	<b>Efficient Education Scheme Based on Coupling and Confusion of Technology . . . . .</b>	<b>573</b>
	Liang Li and Yitian Li	

<b>76</b>	<b>Comparative Analysis Anaerobic Ability Basketball Player in Vertical Leap and Linear Sprint . . . . .</b>	<b>581</b>
	Shihong Liu and Hai Chen	
<b>77</b>	<b>Simulation Analysis on Muscle Dynamics of Tennis Players . . . .</b>	<b>589</b>
	Hai Chen and Shihong Liu	
<b>78</b>	<b>Body Composition Analysis of Female Basketball Players in Chinese Universities . . . . .</b>	<b>595</b>
	Hongwen Xue, Guoqing Yang and Yong Yu	
<b>79</b>	<b>Research on Awareness of After-School Physical Exercises. . . .</b>	<b>603</b>
	Gang Dong	
<b>80</b>	<b>Experimental Research on the Cooperative Study in Physical Education . . . . .</b>	<b>613</b>
	Xuemin Wang and Ruihong Wu	

#### **Part IV Information Computing and Applications**

<b>81</b>	<b>Automation and Singular Differential Equations Based on Drazin Inverse of Block Matrices . . . . .</b>	<b>625</b>
	Li Guo, Mingji Liu and Yue Lv	
<b>82</b>	<b>Almost Periodic Type Solutions of First Order Delay Differential Equations with Piecewise Constant Argument . . . .</b>	<b>631</b>
	Qiujie Zhang	
<b>83</b>	<b>Research of Incremental Learning Algorithm Based on the Minimum Classification Error Criterion . . . . .</b>	<b>637</b>
	Bo Wen, Ganlin Shan and Xiusheng Duan	
<b>84</b>	<b>Efficient Environmental Air Quality Evaluation Scheme Based on the Fuzzy Mathematics Method . . . . .</b>	<b>645</b>
	An Li and Jiyang Liu	
<b>85</b>	<b>Computation of 2D Manifold Based on Generalized Foliation Condition . . . . .</b>	<b>653</b>
	Meng Jia, Yi Ru and Junjie Xi	
<b>86</b>	<b>Compute 2D Stable and Unstable Manifolds of Nonlinear Maps . . . . .</b>	<b>659</b>
	Zhong Wu, Meng Jia and Qinghua Ji	

<b>87</b>	<b>New Lower Bounds of Solution of Generalized Lyapunov Equations . . . . .</b>	<b>665</b>
	Chien-Hua Lee and Ping-Sung Liao	
<b>88</b>	<b>Existence of Solution for Singular Elliptic Systems Involving Critical Sobolev-Hardy Exponents . . . . .</b>	<b>673</b>
	Xiaoli Pan	
<b>89</b>	<b>Analysis of Dynamic Time-Slot Control Random Multi-Access Protocol with Two-Dimensional Probability for Ad Hoc Network . . . . .</b>	<b>681</b>
	Chun-fen Li, Dong-feng Zhao and Yi-fan Zaho	
<b>90</b>	<b>Analysis of Double Clocks Random Multi-Access Protocol with Multi-Channel and Two-Dimensional Probability . . . . .</b>	<b>691</b>
	Chun-fen Li, Dong-feng Zhao and Yi-fan Zhao	
<b>91</b>	<b>K-Mean Clustering Analysis and Its Applications to Classification of Tumor Gene . . . . .</b>	<b>699</b>
	Lingbo Cong and Wanqing Ruan	
<b>92</b>	<b>Analysis on Stress Concentration Factor for Elliptical Hole Based on FEM Theory . . . . .</b>	<b>707</b>
	Hong Lan, Huimin Wang, Liang Cao and Zhiliang Wang	
<b>93</b>	<b>Exact Two-Soliton Solutions of DNLS Equation by IST . . . . .</b>	<b>717</b>
	Yaxian Liu and Jingxia Xu	
<b>94</b>	<b>Research on Psychological Chinese-Style Hatred Based on Mathematical Statistic Law . . . . .</b>	<b>723</b>
	Mingxia Zhu and Chenling Li	
<b>95</b>	<b>Synchronization of Uncertain Chaotic System by Nonlinear Sliding Mode Method . . . . .</b>	<b>729</b>
	Aijun Zhou, Guang Ren, ChengYong Shao and Yong Liang	
<b>96</b>	<b>An Ideal Hilbert Algebras in Positive Implicative BCK-Algebras . . . . .</b>	<b>737</b>
	Qiuna Zhang, Lei Zhang, Dongmei Li and LiNan Shi	
<b>97</b>	<b>Hilbert Algebras in Positive Implicative BCK-Algebras . . . . .</b>	<b>743</b>
	Qiuna Zhang, Lei Zhang, Dongmei Li and LiNan Shi	

<b>98</b>	<b>Generalization of Lemma Gronwall–Bellman on Retarded Integral Inequality . . . . .</b>	<b>749</b>
	Wu-Sheng Wang, Zhengfang Mo and Zongyi Hou	
<b>99</b>	<b>A New Calibrating Method for Micro Inertial Measurement Unit . . . . .</b>	<b>757</b>
	Jie Li, Jun Liu and Qiao Jiang	
<b>100</b>	<b>Wavelet Frequency Domain Weighted Multi-modulus Blind Equalization Algorithm Based on Lower Order Statistics . . . . .</b>	<b>765</b>
	Jun Guo, Ye-cai Guo, Fang Xu and Qu Chen	
<b>101</b>	<b>A Method of Changing Mathematical Model Structure of Duffing Equation . . . . .</b>	<b>775</b>
	Jian-Qun Han and Hong Sun	
<b>102</b>	<b>Study on Probability and Statistics in Practice. . . . .</b>	<b>781</b>
	Baoquan Zhang	



<http://www.springer.com/978-1-4471-4789-3>

Informatics and Management Science III

Du, W. (Ed.)

2013, XXIV, 792 p., Hardcover

ISBN: 978-1-4471-4789-3