Table of Contents

Preface

Chapter 1: Chemical Engineering and Technology, Bio and Medical Chemistry Engineering

Sample Description of Diabetic Rats Treated with the Drug Pair of Astragalus and Chinese Yam by Using Multivariated Data Mapping Methods of R

Preparation of TiO₂-Supported Activated Carbon and its Application in Papermaking Wastewater
Z. Ou-Yang, H.L. Xu, C. Xiong, W.S. Huang, D.M. Xie, B. Luo and B. Lv 7

Performances of Titania-Supported Ru-Based Bimetallic Catalysts in Glycerol Hydrogenolysis Reaction
J. Feng, B. Xu, D.R. Liu, W. Xiong and J.B. Wang 12

Production of 1,3-Propanediol by Catalytic Hydrogenolysis of Glycerol
J. Feng, B. Xu, D.R. Liu, W. Xiong and J.B. Wang 16

Study on Activation Agent Impact for Activated Semi-Coke Structure
J. Liu, M.L. Du and Y.H. Zhong 20

Adsorption of Cadmium (II) from Aqueous Solutions by Peanut Shell Cellulose Modified with Carbon Disulphide
Q.S. Pan, D.Q. Li, J.Q. Li, W. Liu, M.G. Ma, H.P. Yan, B. Zhou, D.S. Huang and S.J. Xu 24

Study on the Properties of Carboxyl Functionalized Kapok Fiber on Adsorption of Mercury (II)
Q.S. Pan, D.Q. Li, J.Q. Li, W. Liu, M.G. Ma, H.P. Yan, B. Zhou, B.S. Wang, L. Shi and S.J. Xu 28

Kinetic Studies on the Polymerization of Dicyclohexylmethylmethane-4,4’-Diisocyanate with Polyoxytetramethylene Diol
J.C. Wang 32

A Maleinuric Acid / Acrylic Acid Copolymer with Functions of Softening Wet-Blue and Scavenging Free Formaldehyde in Leather
H.R. Wang, X.Z. Su and X.B. Zhang 36

A Polyamic Acid from Pyromellitic Dianhydride and Diaminodiphenyl Ether for Thickening Leather and Reducing Chromium Offer in Tannage
H.R. Wang, X.B. Zhang and X.Z. Su 40

Characteristics of Styrene-Acrylate Micro Emulsion with High Solid Content and their Effect on the Coating Properties
H.W. Zhang, S.N. Nan and Y.H. Lei 44

Synthesis and Characterization of N, O-Carboxymethyl Chitosan
H. Zhang, Y. She, X. Zheng and J.W. Pu 48

Adsorption of Copper Ions and Methylene Blue on Natural Wheat Straw and Modified Wheat Straw in Single and Binary System: Column Mode
Y.Y. Su, W. Xiao, Y.B. Jiao, R.P. Han and Y.Q. Li 52

Effects of Attapulgite on the Isothermal Crystallization Behavior of Poly(Butylene Succinate-co-Butylene Adipate)
Z.G. Qi, J.N. Chen, B.H. Guo and Y. Zhang 56

Theoretical Calculation of the Detonation Parameters of ANPyO and Comparison between ANPyO and me (ANPyO)x on their Performance
Y. Dù, Y.H. Wang, Y.J. Li, Z.H. Zheng and J.L. Wang 60

Study on Treating Sintering Flue Gas with Coking Wastewater
J.J. Dong, S.J. Hao, Y.P. Sun, W.F. Jiang and Y.Z. Zhang 64

The Comparison of Different Preparation Methods of Catalysts for Furfural Hydrogenization to 2-Methyl Furan
Z.X. Li, T.Z. Han, W.X. Guo and G.M. Wang 68

Flammability and Mechanical Properties of Toughened Phenolic Foams Containing Nano MP, Nano MCA, and their Capsules
Z.Z. Wang, S.H. Xu and Y.P. Deng 72
<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study on Product Technology of Peanut Protein Beverage</td>
<td>76</td>
</tr>
<tr>
<td>Li, D., Zuo, Y., Tu, L., Wang, W., Ren, Z.</td>
<td></td>
</tr>
<tr>
<td>Oxidative Stability of Tengjiao (<em>Zanthoxylum schinifolium</em>) Oil with Added Compound Antioxidants</td>
<td>80</td>
</tr>
<tr>
<td>Li, D., Zuo, Y., Yu, C., Feng, Z., Wang, W.</td>
<td></td>
</tr>
<tr>
<td>A Research on Mulberry Wine Fermentation Condition Optimization by Means of BBD</td>
<td>84</td>
</tr>
<tr>
<td>Zuo, Y., Qi, F., Li, Y.</td>
<td></td>
</tr>
<tr>
<td>Study on Catalytic Synthesis of N-Butyl Propionate Using Environmentally Friendly Catalyst</td>
<td>89</td>
</tr>
<tr>
<td>Yang, X., Zhang, W.</td>
<td></td>
</tr>
<tr>
<td>Extraction and Purification of Isoquinoline from Wash Oil</td>
<td>93</td>
</tr>
<tr>
<td>E, Y.</td>
<td></td>
</tr>
<tr>
<td>IR and Raman Spectroscopic Studies on Three Mineral Drug Montmorillonite Powders for Children</td>
<td>97</td>
</tr>
<tr>
<td>Liu, B., Xing, M., Bai, L., Dong, S., Wang, X., Liu, X.</td>
<td></td>
</tr>
<tr>
<td>Effects of Solubility, Thermal Stability and Antioxidant Properties of Acylating Dihydromyricetin</td>
<td>101</td>
</tr>
<tr>
<td>Guo, Q., Zeng, J., Lu, Y., Shu, X.</td>
<td></td>
</tr>
<tr>
<td>Zirconia Promoted Nickel Nanowire Catalyst for the Partial Oxidation of Methane to Synthesis Gas</td>
<td>106</td>
</tr>
<tr>
<td>Hong, X., Li, B., Zhang, C.</td>
<td></td>
</tr>
<tr>
<td>Study on CO$_2$ Hydrogenation to Ethylene with Iron-Based Catalyst</td>
<td>112</td>
</tr>
<tr>
<td>Optimization of Lipase Production from <em>Arthrobacter</em> sp.SD5</td>
<td>116</td>
</tr>
<tr>
<td>Ren, P., Lin, W.H.</td>
<td></td>
</tr>
<tr>
<td>Research on Dimerization of Oleic Acid Catalyzed by Organic Montmorillonite</td>
<td>120</td>
</tr>
<tr>
<td>Review of Extraction and Purification of Carotenoids from Pomace</td>
<td>124</td>
</tr>
<tr>
<td>He, X.X., Liu, C.M., Sun, H.M., Liu, M.M.</td>
<td></td>
</tr>
<tr>
<td>Determination of Atropine Sulfate, Aminophylline and Vitamin by a Spectrophotometric Method with the Aid of Chemometrics</td>
<td>128</td>
</tr>
<tr>
<td>Lei, Y.H.</td>
<td></td>
</tr>
<tr>
<td>Study on the Effect of Vacuum Microwave Drying on Quality of Okra</td>
<td>132</td>
</tr>
<tr>
<td>Li, J.Y., Duan, Z.H.</td>
<td></td>
</tr>
<tr>
<td>Fabrication and Characterization of Hydroxyapatite/Poly (L-Lactic Acid-Polycaprolactone Nanofibrous Composite Scaffolds</td>
<td>137</td>
</tr>
<tr>
<td>Wu, G.F., Liu, J., Ma, Y.W., Jiao, J.J., Xiao, X.F.</td>
<td></td>
</tr>
<tr>
<td>Vapor-Liquid Equilibria for the Ternary System Ethyl Acetate-Acetonitrile-1-Octyl-3-Methylimidazolium Tetrafluoroborate</td>
<td>141</td>
</tr>
<tr>
<td>Shi, X.M., Wang, M.</td>
<td></td>
</tr>
<tr>
<td>Synthesis of Hydroxyapatite Microspheres with CAPB as Template</td>
<td>145</td>
</tr>
<tr>
<td>Lin, X.X., Qin, X.Q., Yao, Q.L., Wu, S.S., Xiao, X.F.</td>
<td></td>
</tr>
<tr>
<td>Research on the Performance of Polyether-Modified Trisiloxane Surfactant</td>
<td>149</td>
</tr>
<tr>
<td>Zheng, C., Zheng, D.N., Yin, Y.</td>
<td></td>
</tr>
<tr>
<td>Spatial Distribution and Seasonal Variations of Volatile Phenols in the Surface Water of the Taizi River</td>
<td>155</td>
</tr>
<tr>
<td>Song, X.Y., Hu, X.J., Liang, R.J., Sun, W.J.</td>
<td></td>
</tr>
<tr>
<td>Kinetics and Thermodynamics of Adsorbing Ni$^{2+}$ from Waste Water onto a New Type Treated Attapulgite</td>
<td>159</td>
</tr>
<tr>
<td>Jiang, D.Y., Shi, Y.Y., Feng, L.D., Yuan, A.Q.</td>
<td></td>
</tr>
<tr>
<td>Preliminary Researches on Influence of Several Kinds of Magnoliaceae Plants on Activity of Cholinesterase from Pig Serum</td>
<td>163</td>
</tr>
<tr>
<td>Chen, K.J., Zhao, G., Zhuang, S.C., Zhuang, F., Qian</td>
<td></td>
</tr>
<tr>
<td>TiO$_2$ Nanotubes Modified with Polyelectrolyte Multilayers as a Drug Delivery and its Release Behavior</td>
<td>167</td>
</tr>
<tr>
<td>Yang, X.J., Wang, Z., Li, Y.R., Chen, Y.F., Xiao</td>
<td></td>
</tr>
<tr>
<td>Determination and Correlation of Solubilities of [HBth</td>
<td>CH$_3$SO$_3$] in Binary Solvent of Ethyl Benzoate and Alcohol</td>
</tr>
<tr>
<td>He, Z.J., Zhao, Z.D., Wang, H., Song, Q.Q., Bian</td>
<td></td>
</tr>
</tbody>
</table>
Study of UV Curing Kinetics for Coating Containing Siloxane Modified Polyurethane-Acrylate
Y.S. Qi, J.W. Yang, Z.H. Zeng and Y.L. Chen 175

A Research on Release of Copper Ions and Panels in Shallow Submergence of Antifouling Paints with Nanoadditives
X.D. Zhao, W.J. Fan and B.R. Hou 179

Molecular Dynamics Simulation of Effects of NH₄Cl on the Properties of Lewis Acidic 1-Ethyl-3-Methyl-Imidazolium Chloride/Chloroaluminate Molten Salts
G.C. Tian and Y.D. Li 183

Coating Binder Migration and Affected Parameters: Influence of Coating Process
Z.H. Zhen and Z.S. Wang 187

Coating Binder Migration and Affected Parameters: Influence of Pigments and Base Paper
Z.H. Zhen and Z.S. Wang 192

Orthogonal Optimization of Ultrasound-Assisted Ionic Liquid Transesterification of Corn Oil Biodiesel
Y.G. Bi and S.S. Wu 196

Experimental Design of Removing Sulfur Dioxide from Industrial Flue Gas with Sodium Sulfide-Containing Waste Water
G.Y. Zhao, F.Q. Zhao, S.J. Liu and H.J. Liu 200

Biotransformation of Adiponitrile to 5-cyanovaleramide by Pseudomonas Sp. SY031 Resting Cells
J. Chen, Y.T. Huang, S.G. Deng and J.R. Li 204

Preparation of Polymer Brushes by Surface-Initiated ARGET ATRP
X.M. Chu, S.J. Liu, H.J. Yang and F.Q. Zhao 208

Fusion and Prokaryotic Expression on the mbp83 and mbp63 Genes of Mycobacterium Bovis

Electrodeposition of Lithium in Nonaqueous Solutions and Molten Salts
M.M. Liu, D.L. Gao, H.Z. Zhang, Y.F. Guo, X.P. Yu and T.L. Deng 216

Synthesis and Thermodynamic Properties of Magnesium Borates
F. Li, C.X. Lin, L.J. Yang, Y.F. Guo, S.Q. Wang and T.L. Deng 220

Ionic Liquid Extraction Methods for Alkali and Alkaline Earth Metal Ions
D.L. Gao, Y.F. Guo, X.P. Yu, S.Q. Wang and T.L. Deng 224

Synthesis and Properties of Caprolactam-Blocked Non-Ionic Waterborne Polyurethane Crosslinker
T.F. Shen, Y.J. Sun and F.C. Wu 228

Research Progress of Flotation Collector in Hematite Flotation
W.Z. Wang, M.Q. Lei and C.G. Yang 232

Spectroscopic Analysis on the National-Level Combination Medicine Biqi Capsule
B.Y. Liu, M. Xing, Y.S. Bai, L. Dong, S. Wang and X.D. Liu 236

Morphology and Crystallization Behavior of Toughened Poly(Trimethylene Terephthalate) Blends with Acrylonitrile-Butadiene-Styrene
K.Y. Wang 240

Development and Analysis of Aroma Compounds of Low Alcohol Blue Berry Wine
Y. Cui, W. Lv and R.X. Fu 244

Preparation and Properties of the Novel Adsorbent Agent for Juices Clarification
Z.X. Li, G.M. Wang and Q. Liang 248

Study on the Preparation of Repaglinide Chitosan Microspheres with Genipin
Y. Zhang, X.X. Shi, Y.F. Yu and Y.X. Song 252

Effect of Organoclay on Thermal Degradation and Crystalline Morphology Properties of Biodegradable PHBV
K.Y. Wang and F. Cao 256

Investigation on Thermal Decomposition Kinetics of Ulipristal Acetate (Form B)

Pre-Processing Influence on Identification of Optimal Path Length for NIR Analysis of Tea Polyphenols
X.L. Yang, Q. He, L. Liu and T. Yang 265
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combinatorial Screening of COX-2 Inhibitors from Chinese Herbs Based on Multiple Structure-Based Pharmacophores</td>
<td>Y.L. Zhang, Y.M. Wang and Y.J. Qiao</td>
<td>269</td>
</tr>
<tr>
<td>Mechanical and Thermal Properties Biodegradable Microcellular Foams Based on Polylactide and Polycaprolactone</td>
<td>T.F. Shen and Y.J. Sun</td>
<td>274</td>
</tr>
<tr>
<td>The Effect of LZB-GC Antibacterial Agent on Mechanics and Friction Properties of Dental Composite Resin</td>
<td>X.Q. Che, S.Y. Zhang, Y.P. Chen and B. Liu</td>
<td>299</td>
</tr>
<tr>
<td>Research on Preparation of Nano-Hydroxyapatite Biological Material</td>
<td>Y.G. Bi and X.S. Xu</td>
<td>303</td>
</tr>
<tr>
<td>Mathematical Modeling of Chromium(III) Extraction by Emulsion Liquid Membrane</td>
<td>Y.Z. Xie, D.J. Fei, Y.G. Dang and J.X. Wu</td>
<td>315</td>
</tr>
</tbody>
</table>

Chapter 2: Material Science, Manufacturing Technology and Civil Engineering

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Analysis of Axial Compression of Reinforced Concrete Short-Columns Strengthened with CFRP Sheets</td>
<td>X.C. Wang, H.B. Nie and J.P. Zhang</td>
<td>323</td>
</tr>
<tr>
<td>Preparation and Application of a Leather Finish with Core-Shell Structure</td>
<td>X. Zhao and Y.S. Zhao</td>
<td>326</td>
</tr>
<tr>
<td>Study on the Effect of Outer Frame on Seismic Performance of Improved Multi-Ribbed Slab Structure</td>
<td>K. Qian, T. Xia, J. Zhang and Q. Yuan</td>
<td>330</td>
</tr>
<tr>
<td>Research Status and Prospect of Recycling of Waste Concrete for Sustainable Development</td>
<td>C. You, G.J. Liang and Y.X. Zhu</td>
<td>335</td>
</tr>
<tr>
<td>Mechanical Properties of 35CrMoA Steel at High Strain Rate Loading</td>
<td>W.J. Hu, X.C. Huang, F.J. Zhang and L.M. Wei</td>
<td>338</td>
</tr>
<tr>
<td>Application of Fluorescence Material in Anti-Counterfeit Field</td>
<td>X.J. Huang, S.Y. Luo and X.L. Zhang</td>
<td>343</td>
</tr>
<tr>
<td>Analyses for Statistic Distribution of the Welded Joint Fracture Toughness about X65 Pressure Pipe Steel</td>
<td>B.L. He, Y.X. Yu, S.Y. Lei and L.X. Huo</td>
<td>346</td>
</tr>
<tr>
<td>Fuzzy Comprehensive Evaluation for Dampers of Inclined Cables</td>
<td>X.F. Xue, X.J. Xue, Y. Li and X.H. Wu</td>
<td>350</td>
</tr>
<tr>
<td>Analysis on Construction Control of Continuous Rigid Frame Bridge in Winter Intermission</td>
<td>Y.X. Yang, Z.K. Yang and C. Qiao</td>
<td>354</td>
</tr>
<tr>
<td>Analysis on the Capacity of Old Highway Bridge</td>
<td>Y.X. Yang, W.S. Wang and C. Qiao</td>
<td>358</td>
</tr>
</tbody>
</table>
Study on Thermal Cycling of Sn0.7Cu Solder
L. Yang, J.L. Li, J.G. Ge, M. Li and N. Ji 362

Effect of Welding Methods on Microstructure of Joint for 16MnR and 2205DSS
L. Yang, N. Zhang, J.G. Ge, N. Ji and M. Li 366

Research on Simplifying the Buffeting Response Spectrum of Suspension Bridge
H. Bai and Y. Zhang 370

Determination of C Parameter of Larson-Miller Equation for 15CrMo Steel

Research on the Aerodynamic Measures Impact on Flutter Stability of Steel Truss Suspension Bridge
H. Bai and S.H. Huang 378

Remnant Life Prediction of Service-Exposed 12Cr1MoV Superheater Tube in Power Plant
X.W. Zhu, H.H. Cheng, M.H. Shen and J.P. Pan 382

Analysis of the Microstructure of High Chrome Steel for Roller under Forged Annealed State
J. Yang and F. Quan 386

Research on Springback Compensation of Aluminium Alloy Automobile Body Panel

Anticorrosion Property Study on the Hard Chrome Plating Layer of Hydraulic Cylinder Rod
N. Zhang, C.H. Huang, C.H. Zhang and N. Shi 394

Nano SiO$_2$/Cellulose Composite Films Prepared via Ionic Liquids
B.J. Li, Z.M. Wang, K.J. Xiao and Y. Liu 398

Analysis of Release Behavior of Pressure Sensitive MF-Resin Microcapsules Containing CVL
Z.H. Zhen and Z.S. Wang 402

The Effect of Magnetron Co-Sputtering Parameters on the Microhardness of TiZrN Thin Films
X. Zhao, W. Qin and G.D. Zhao 407

The Finite Element Numerical Simulation of the Temperature Distribution of the Glass that under the Irradiation of Laser
T.J. Liu, N. Shan and Y.Z. Ma 411

Modeling and Experimental Validation of Composite Stiffened Panels under Uniaxial Tension
H.Q. Wang, Q. Yan, Z.H. Xie and X.D. Sui 415

The Research on Glass Transition Temperature of Ionic Liquids Using DFT Method
L. Zhao, Z.J. He and X. Tang 419

Preparation of Hydroxylated Carbon Nanotubes/Magnetic Iron Oxide Compound Particles
Y.B. Li, C.G. Ma and H.M. Wan 423

Finite Element Analysis of the Process of the Metal Liquid Flows in the Die Cavity
M. Yu, B. Wang, L. Ni, P.H. Li and C.M. Xue 427

Influence of Tempering Temperature on Microstructure and Mechanical Properties of 35CrMnSiMo Cast Steel
H.B. Li, H.C. Cheng, J. Wang, C.J. Li and X.J. Su 431

A New Ti-Zr-Cu-Si Amorphous Alloy with Excellent Biocompatibility
Z.Y. Suo, J.J. Chen, Y.L. Song and K.Q. Qiu 435

Effect of Tempering Temperature on Mechanical Properties of High Strength Wear Resistant Cast Steel
H.B. Li, J. Wang, H.C. Cheng, C.J. Li and X.J. Su 440

Study on Thermal Stability and Salt Spray Resistance of SS-O Solar Spectrum Selective Absorbing Coating
H.W. Liu, H.M. Feng, J.M. Liu and X.Z. Li 444

Anti-Oxidation Coatings for Steel Billets at High Temperature
Y. Xu, P. Wang and J. Lu 448

The Microstructure and Magnetic Properties of TbDyHo (FeMn)$_{0.95}$ Alloys
Q.F. Lin and H.B. Zhang 452

On Research of Basalt Fiber Used in Asphalt Concrete
J.J. Li and Y.C. Liu 456
Flame Retardation of SBS Composites Containing Ammonium Polyphosphate and its Microcapsules
Z.Z. Wang and Y.R. Huang

Quantitative Analysis of Intermetallic Phase in 850°C Aging 2205 Duplex Stainless Steel
W. Liu, N.Q. Zhu, Y.L. He and L. Li

Microstructural Characteristics of Ti-Co Alloys for Biomedical Applications
X.Z. Pang, J. Hu and Y.Z. Zhan

The Structural-Acoustic Optimization Analysis Based on Material Selection Optimization Approach
W. Wang and L.Y. Chen

Detection and Control of Building Materials Quality
X.L. Dong and D.N. Han

Corrosion Failure Analysis of an SA210 Steel Used in High Pressure Evaporator Tube of the Gas Heat Recovery Boiler
L.S. Cen, Z.W. Wang, L. Li, Y.M. Fei and Q.Q. Liu

Preparation and Tensile Properties of Carbon Fiber Reinforced Polyethylene Resin Composite
B.L. He, Y.X. Yu and L. Li

Analysis of Influence Factors in Step Heating Thermography to Composite Materials
T. Tang, X.J. Shan, W.C. Xu and D.S. Wang

Effect of Air Oxidation Treated Carbon Fiber on Mechanical Properties of Carbon Fiber Reinforced Polyethylene Resin Composite
Y.X. Yu, B.L. He and L. Li

A Study of the Earthquake-Resistance Performance of Frame Structures with Different Types of Stairs
Y. Ran, W.F. Kou and G.H. Xing

Finite Element Analysis of High-Strength Concrete Flat Columns with Diagonal Reinforcements
T. Lei, J. Qian and Q.B. Tian

Application and Research of Monte Carlo Method on Surface Morphology of Copper Matrix Composites
R.B. Ma, S.M. Xu and J.H. Du

Experimental Research on Sealing Structure Leak-Rate of Pressurized Tube
X.J. Shao, G. Tian, J.H. Liu, J.B. Zhang, L.L. Yang and Y.G. Qi

Research on Forging Process for Fractured Connecting Rod
W.D. Feng and J.H. Pan

Calculation for 3D Rock Mechanics Parameters

Study on the Bonding Strength of Arc Spraying Amorphous Coating
Y.F. Yang and J.Y. Zhang

Global Flow Structure in a Square Gas-Solid Fluidized Bed
T. Zeng, S.B. Liu and H.B. Lin

Investigation of Pure-Lateral-Field-Excitation Bulk Acoustic Wave Sensor with Different Electrodes on (yxl)89° LiNbO3 Single Crystal
J.L. Jiang and T.F. Ma

Numerical Simulation of Filling and Solidification in Sand Casting by Procast
D.D. Han, C.J. Wang, J. Chang, L. Chen and H.B. Xie

Analysis of Stress Corrosion of Brass Tube on Heat Exchangers
Z.F. Wang

Structure Analysis and Quality Prediction of DP Steel Engine Hood in the Process of Hot Stamping
Z.P. Zhang, H.W. Liu, T.X. Chen and Z.Y. Yu
Study on Sand Group Motion Characteristics of Vibration Moulding
T. He, X. Yang, D.S. Zhang and C.J. Wang 562

Simulation on Roadheader Rear Supporting Leg Vibration Moulding
T. He, X. Yang and C.J. Wang 566

Structure Optimization Analysis and Application of Continuous Beam Based on ANSYS
C. You, X.S. Wang and Y.X. Zhu 570

GA Wavelet Transform Direction for γ-Phase Shaped Finite Element Analysis
L. Meng 573

Performance Forecast of Solar Spectrum Selective Absorbing Coating Based on RBF Neural Network
H.W. Liu, S.B. Ping, F. Zhang and X.L. Zhang 577

Analysis of Vibration Coupling of QCM Sensor
H.F. Jiang, C.J. Chen and H.H. Li 581

Spin Dependent Pump Probe Reflection Spectroscopy in Bulk InP Crystal
H. Ma and J.C. Leng 585

Study on Pattern Formation of Segment Color Yarn Plain Weft Knitted Fabric

Chapter 3: Mechanical Engineering and Equipment, Mechatronics, Automation and Control

Research on Job Scheduling Problems with DMS for Cell Controller Based Bogie
X.H. Wang, W. Xu and W.D. Feng 595

Research of Loads State of the Upper Part of the Tower Crane Based on Guide Wheel Pressure of Climbing Frame
B. Li, X. Tao, Y. Zhang and L.Z. Xu 599

Design of Control System in Strapping Machine for Paper Bills
X.J. Zhang and X.H. Ma 603

Development and Application of On-Line Control System for Operation Mode in Substations
N.N. Gao, J.X. Huang and H.B. Li 607

The Research of Sewage Treatment Control Methods Based on the Internet of Things
L.N. Zhang, J. Li and L. Liu 611

Dynamic Coordinated Shifting Control for Hybrid Electric Vehicle
J. Wang, Q.N. Wang, X.H. Zeng, C. Li and S.S. Liu 615

Design of Adaptive Cruise Control Systems Based on Quadratic Boundedness Theory
Z.H. Gao, W. Yan, Z.Y. Jiang, Z.C. Hu and H. Zhao 619

Analysis of External Gear Pump Failure
W.G. Zhang, G.M. Lin, M. Shang and Q. Chen 623

Analysis of Mechanical Characteristic of Three-Phase Asynchronous Motor
M. Shang, G.M. Lin, W.G. Zhang and J.J. Ye 627

Research on the Fracture Splitting Technology of Connecting Rod Based on Car TSI Engine
T.M. Liu, W. Xu and W.D. Feng 631

Human Factors Analysis of Virtual Assembly Car Door Based on the CATIA Virtual Environment
L.T. Mu and Y. Cao 635

Miniature Electric Touring Car Chassis Structure Analysis and Optimization
W.M. Liu, C.G. Lu and H. Deng 639

Trajectory Tracking of Underactuated Manipulator Using Fuzzy Method
Q.X. Xia, Y.Q. Yu and Z. Yu 643

Design of CAN Communication Network with Distributed Control Systems for Pure Electric Vehicle
X. Chen, J. Wu, Y. Zhao and H.T. Bai 647

Synchronization in Drive-Response Dynamical Networks Based on Nonlinear Control
D.D. Feng 652
Integrated Aircraft Modeling Research for Accurate Flight Control System Design
C. Zhang, Y.N. Liu and J.H. Xu 658

Speech Control System for Robot Based on Raspberry Pi
C.H. Lu and Y.L. Hu 663

Study on Uninterrupted Shift Transmission Shift Strategy Based on Fuzzy Control
K.G. Zhao, H. Chang, Y.L. Hu and W.H. Yao 668

Research on Vehicle Height Dynamic Control
H.X. Song, C.F. Li, Y.S. Hou, C. Wang and C.M. Shao 672

The Mechanical Characteristics Study on an Interconnected Anti-Rolling Suspension System
Y.S. Hou, H.X. Song and C. Wang 676

Modulation Waveform Cycle Normalization Based Unipolar SPWM Controller
C. Jiang, Y.L. Hu, K.K. Zhang and Y. Cao 681

Research of Control Scheme of the New Automation System Based on Fieldbus
Z. Hong, L.H. Ma and X.H. Zhang 686

Research on Control Strategy of Automatic Control System for Sewage Treatment
Z. Hong, X.L. Liu and F. Wei 690

The Design and Finite Element Analysis of the Installation to Smash Banana Stem
K. Zheng, X.R. Zhang and D. Liang 694

Comparative Research on Damping Effects of Shock Absorbers Relatively Made in Russian and China on the Fuel-Lubricating Oil Heat Exchanger of Aeroengine
K.Y. Yang, H. Gan and H.Y. Qu 699

Application of Backstepping Stability Control in the Diffusion Process
X. Zhang 704

Development of Shearer Picks Brazed by Copper Brazing Agent and Property Study on Brazing
N. Zhang, J.G. Ge, L. Yang and M. He 710

Centrifugal Pump Volute Parametric Design Based on SolidWorks
W.W. Tu, L.X. Zhang and J. Sun 714

Finite Element Analysis on Rack and Pinion of Roadheader
M.M. Xu, Y. Li, S.N. Xie and Q.H. Chen 718

Optimization Calculation and Simulation Analysis of Mine Hydraulic Grilled Slag Machine Cantilever
Y. Li, Z.B. Zhou, H.L. Song and M.M. Xu 722

The Optimization Design of Hydraulic Support: Rolling Advancing Support Device of Hydraulic Support
Y. Li, J.X. Li and X.F. Wang 726

The Lightweight Design for Tractor Frame of the Coal Mine Belt Horizontal Extension Transfer Machine
P.H. Mao, B. Zhai and J.X. Li 730

Flow Field Analysis and Structure Optimization of Water Hydraulic Poppet Valve Based on the CFD
Q. Xia and X.P. Guang 734

Study on Mechanical Press for the Green Design of Environmentally Friendly Toilet and its Harmonic Response Analysis
P.H. Mao, J.X. Li, Y.Q. Li and H. Yang 738

The Finite Element Simulation of Disc Cutter of Different Diameter Breaking Rock
A.N. Zhang, Z.F. Zhu and F. Zhu 742

The Higher Order Axis-Directional Crack-Tip Field for Reissner's FGMs Cylindrical Shell
Y. Dai, L. Zhang, X. Chong and C.F. Xue 746

Research on Tractor of Coal Mine Horizontal Belt Extension Transfer Machine
P.H. Mao, B. Zhai and J.X. Li 750

The Higher Order Crack-Tip Field of Circumferential Crack for Reissners FGMs Cylindrical Shell
Y. Dai, L. Zhang, X. Chong and C.F. Xue 754

The Higher Order Crack-Tip Field for Crack along x-Axis in Reissner's Bidirectional FGMs Cylindrical Shell
Y. Dai, L. Zhang, X. Chong and Y. Chen 758
Chapter 4: Measurement and Instrumentation, Monitoring, Testing and Detection Technologies, Fault Diagnosis

EMD and Zoom Envelope Spectrum for Rolling Bearing Fault Diagnosis

A Monitoring Model of Unusual Transactions Based on Complex Event Processing
J.X. Wan, F.Y. He, B. Liu and S.P. Zhong 845

The Depth Image Restoring Based on Harris Corner Detection
A.S. Dong and X. Liu 852

Topology and Functions of Large-Scale PV Power Station Monitoring and Control System
H.C. Yao, L. Yin and M.Y. Huang 857

The Simulation Research of Detecting Metal Debris with Different Shape Parameters of Micro Inductance Sensor
F.Z. Zhang, B.D. Liu, Y.D. Wu and D.S. Li 861

The Research of Intelligent High-Pressure Water Jet Target Detection Experimental System
H. Yang, M.M. Niu, D.S. Zhang and J.X. Li 866
Research on the Protective Device of Outside Environmental Monitoring System for Refuge Chamber
A Design of a Monitoring Expert System of Flight Parameter
Y.S. Zhang, H.F. Zhang, W. Ye, C.J. Wang and Z.D. Xu
Remote Control Techniques and Monitoring System for Roadheader
S.Y. Wang, Y.B. Du and M. Wu
Research on Figure Test and Skew Kurtosis Test of the Normal Distribution
J.S. Wang, J.H. Wu, Y.Z. He and J.T. Zheng
Robust Fault Estimation Based on Adaptive Observer
Z. Yuan, L.N. Wu, Z.F. Wang and J. Liu
A Group Testing-Based Distributed Network Traffic Monitoring Approach for Smart Grid
H.H. Zhao, F.B. Meng, Q.Q. Zhao, W.Z. Ma, Z.C. Lin and G.H. Yin
Research on the Mine Safety Monitoring System Based on Wireless Sensor Network Technology
Study on Network Public Opinion Monitoring Based on .NET Framework
Y. Zhu
Research and Analysis on Injury Factors of College Sports Based on SIIR Survey Instrument
H.X. Li and R.Y. Zhang
Fault Diagnosis of Power Transformer Based on Adaptive Differential Evolution and Least Square Support Vector Machine
Z.P. Li and H. Peng
Research and Application of Automation Testing Technology Based on Keyword-Driven X.J. Guan, C. Zhou, X.Y. Qian and S.M. Liu
FTA-Based Reliability Measurement of Test-Bed System
Q. Lin and Y. Chen
Application of Wireless Sensor Technology in the Training of Martial Arts and Specification Motion Detection
C.K. Shao
Research and Realization of I/O Monitoring Based on Xen Cloud Platform
F.G. Liu, W.Y. Wang, Z. Xiong and J. Lin
Research and Implementation of Key Techniques of Osgi Integration Testing Platform
F.G. Liu, Y.S. Peng, N. He, Y.Y. Yang, J. Yang and X.K. Zhang
Design of Radar Transmitter Test Device
W.M. Du, C.B. Liu and G.H. Liu
Inspection of Large Guide Rail Precision Based on Bistatic Measurement Method
Y. Liu, Z.W. Hao and T.T. Ren
Detection of Ceramic Material Crack Defect Based on the Ultrasonic Infrared Thermal Wave Technique
G. Tian, W. Zhang, G.F. Jin, L. Zhu and Z.W. Yang
Software System for Automotive Wiring Harness Testing Based on Virtual Instrument
W.D. Feng, W. Xu and X.H. Wang
Particle Swarm Optimization and Adaptive Wavelet Theory for Vibration Signal Application in Fault Diagnosis of Gearbox System
H.X. Chen and Y. Zhang
Multi-Agent Information Interaction Research for Distribution Dispatch Monitoring
Z.J. Qu, L. Guo, H.P. Ling, G. Chen and L. Liu
Study on Fault Diagnosis and Repair Strategy of CNC Machine Tool
G.M. Lin, M. Shang and W.G. Zhang
Hardware System for Automotive Wiring Harness Testing Based on DAQ Instrument
W.D. Feng, J.H. Pan and W. Xu
Composite Environment Monitoring System for Edible Fungus Cultivation Based on ZigBee Technology
C.B. Guan, J.Y. Liu, L.S. Hu and Q. Zhang
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Monitor and Purify</td>
<td>C.X. Chen and Y.H. Mao</td>
<td>984</td>
</tr>
<tr>
<td>Winter PBL Aerosol Profiles at Beijing</td>
<td>Y.M. He, H. Yang, D.B. Yan, P.B. Chen, J.S. Ye, X.J. Li, Y.J. Hao, Y.F. Sun and X.S. Zhao</td>
<td>992</td>
</tr>
<tr>
<td>Advances in Graphene-Based Fluorescent Sensors for Heavy Metals</td>
<td>L.L. Luo, M. Zhou, J.Y. Yang, S.X. Zhong and J.R. Chen</td>
<td>998</td>
</tr>
<tr>
<td>Error Analysis and Testing on Shifting Verticality for Horizontal Photoelectric Theodolite</td>
<td>W.D. Feng, W. Xu and X.H. Wang</td>
<td>1002</td>
</tr>
<tr>
<td>Purification of Axis Trace by Ensemble Empirical Mode Decomposition</td>
<td>J.X. Zhu, W.B. Zhang, Y.S. Pu and Y.J. Zhou</td>
<td>1006</td>
</tr>
<tr>
<td>Tool Broken Protection System on Bogie Frame Deep-Hole Drilling</td>
<td>W.D. Feng, J.H. Pan and W. Xu</td>
<td>1010</td>
</tr>
<tr>
<td>Research on Evaluation of Vehicle Dangerous Traveling State Based on Information Fusion Method</td>
<td>P. Wang and Z.Q. Liu</td>
<td>1018</td>
</tr>
<tr>
<td>Research of Human Body Detection and Tracking Algorithm</td>
<td>G. Zhang, B. Ouyang, L.M. Yu and L. Zhang</td>
<td>1023</td>
</tr>
<tr>
<td>Remote Repair System Based on VIRTOOLS</td>
<td>Z.Q. Wang, B. Shen, Z.G. Liu and J.Q. Liu</td>
<td>1028</td>
</tr>
<tr>
<td>Design of Intelligent Fire Truck Based on STC89C51</td>
<td>W.Z. Zhou and Z. Li</td>
<td>1032</td>
</tr>
<tr>
<td>Design of Micromachined Thermal Expansion Gas Gyroscope Signal Detection Circuit</td>
<td>J. Wei, Y. Su and X.H. Zhu</td>
<td>1036</td>
</tr>
<tr>
<td>Error Auto-Compensation Methods of Improved Single-Axial Rotation INS</td>
<td>G.P. Li, Y.B. Gao, T.J. Wang and L.W. Guan</td>
<td>1046</td>
</tr>
</tbody>
</table>

Chapter 5: Computation Methods and Algorithms for Modeling, Simulation and Optimization, Data Mining and Data Processing

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research on Neighbor Search Algorithms for Discrete Manufacturing System Based on Bogie Frame</td>
<td>X.H. Wang and W.D. Feng</td>
<td>1053</td>
</tr>
<tr>
<td>Array Pattern Synthesis Based on the Improved LDW-PSO Algorithm</td>
<td>J.J. Yang, L.K. Liu and Y.M. Sun</td>
<td>1057</td>
</tr>
<tr>
<td>A 3D Video Quality Assessment Method Based on the Disparity Map</td>
<td>T. Zhou</td>
<td>1061</td>
</tr>
<tr>
<td>Scene-Based Adaptive Iteration Bad Pixel Dynamic Correction Algorithm for Infrared Focal Plane Arrays</td>
<td>Y.X. Zhao, L. Han, S. Yang and L.B. Tang</td>
<td>1064</td>
</tr>
<tr>
<td>Simulation on Three Dimensional Water-Exit Trajectory of Submarine Launched Missile</td>
<td>S.Z. Wang, H.P. Wang, M. Yang, L.P. Wang and G.W. Wei</td>
<td>1069</td>
</tr>
<tr>
<td>Simulation on Torpedo Unsteady Hydrodynamic with the Movement in the Longitudinal Plane</td>
<td>M. Yang, S.P. Zhao, H.P. Wang, L.P. Wang and S.Z. Wang</td>
<td>1073</td>
</tr>
<tr>
<td>Algorithm for Linear Scheduling Method with Time and Distance Constraints</td>
<td>M. Li and Z. Xu</td>
<td>1077</td>
</tr>
</tbody>
</table>
Simulation Analysis on Vibration Mode of X-PLY Corrugated Paperboard in Transportation Engineering
R.H. Xia, Y.F. Guo, D.Q. Sun and D.B. Chen

LBRM Algorithm for Rule Extraction Based on Rough Membership
X.Y. Zhang and D.Q. Miao

A Rapid Renumber Method for Implicit Iteration of Unstructured Grids
J. Cheng, J.Y. Yu and F.X. Jia

Study on LSSVR Modeling Positioning Based on Particle Swarm Optimization
X.W. He and W.Q. Huang

A New Method for Initial Parameters Optimization of Guided Projectiles
B.M. Feng and W.S. Nie

An Enhance Eigen Algorithm Trust Model in P2P Network
X.L. Li, J.J. Xiang, S.J. Zhang and X.H. Yang

Application of Fuzzy Genetic Algorithm in Parameter
Z.H. Wang, L.J. Hao, X.Q. Lu and B. Wang

A Simulated Annealing Based Algorithm for Energy-Constrained Ferry Route Design Problem
Y. Wang, Q. Dou, W. Peng and Z.H. Gong

Solving Closed Walk Ferry Route Design Problem by Using an Improved Genetic Algorithm
Y. Wang, Q. Dou, W. Peng and Z.H. Gong

An Improved Particle-Based Coupling Method of Fluid and Rigid Bodies
J.X. Guo, C. Yang, J. Han, X.Y. Liao and Z.Y. Yuan

Application of Principal Component Algorithm to the Direct Assimilation of AIRS in the WRF 4D-Var System
Y. Yu, W.M. Zhang, M.B. Zhu, M.H. Ye and J. Sun

User Behavioral Characteristics Mining Algorithms Based on Net-Flow
W.H. Wang

A New GO Methodology Algorithm Based on BDD
J. Fan, Y. Ren and L.L. Liu

Simulation of Ocean Wave-Generated Magnetic Field Disturbance Observed above Sea-Surface Based on Directional Spectrum
X. Xiong, R.J. Yang and K.L. Miao

The High Performance Computing of Inversion Algorithms
W. Dong, S. Qiao, J.L. Mao and M. Yue

A Fast Algorithm for Anti-Collision in RFID System
C.Y. Di, Z.H. Qian, M.L. Wang, Q. Li and S. Zhu

Joint Power Allocation and Relay Selection Optimization for Cognitive Radio Networks
L.P. Su, D. Chen, W.H. Huang and N. Li

Research on Dance Teaching Advantage Analysis Based on Computer Intelligent Simulation
H.Y. Li and Y.X. Yang

Application of Embedded Wavelet Image Coding Algorithm in Track and Field Route Optimization
T. Li

Bi-Level Programming Models Applied in Urban Transportation Network Design Problems
C. Song

Applied Research of Improved Hybrid Genetic Algorithm in Multiple Constraints Location-Routing Problem
Y.F. Jiang and C.I. Feng

Reliability Evaluation and Management in Simulation Systems
Y. Chen and Q. Lin

The Application of Open Scene Graph Technology in Visualization of Flight Simulation
C.J. Hu

Design and Analysis of Algorithms Based on the Discrete Model
Q. Guan and J.B. Fang

Study of Canonical Correlation Analysis Algorithm Based on Kernel Function
Q. Guan and J.B. Fang
Application of Artificial Immune Algorithm in the Capacitated Arc Routing Problem
Q. Xiong, J. Peng, G.R. Chen, Q. Han and J. Yi 1195

Design and Simulation of the Exoskeleton Robot
C. Wang, Y.L. Wang and M. Ma 1199

Research on the Parameter Model Simulation Based on Computer Simulation Basketball Match
Z.G. Liu, J.Y. Li and X.L. Ren 1203

Research on the Virtual Reality Training Simulation Technology Based on Key Technology of Physical Simulation
X.Y. Dong 1215

A MPPT Control Algorithm Based on Extreme Learning Machine in PV System
J. Wang and K. Zhang 1219

A Combination Model for Short Term Wind Power Forecasting
K.W. Liu and J. Wang 1220

Annealing Partheno-Genetic Algorithm for VRP with Soft Time Windows
Q. Fang and D. Mei 1224

Research on Building Earthquake Disaster Simulation
G.L. Pang, D.Q. Chen and M. Huang 1228

Computing Resource Allocation for Enterprise Information Management Based on Cloud Platform Ant Colony Optimization Algorithm
Y. Liang, Q.P. Rui and J. Xu 1232

Research on Signal Detection Algorithms Based on Spatial Multiplexing of LTE System
D. Wang, Y. Zhou and Z.H. Qiu 1238

An Improved RFID Anti-Collision Algorithm
X.H. Liu, Z.H. Qian, G.Q. Wang and X. Zhang 1243

A New Type of Marine Ballast Water System Simulator
F.W. Yu, F.M. He, X.C. Liu and H.Y. Sun 1247

Heterogeneous Computing for a CFD Solver on GPU/CPU Computer
W. Cao, C.F. Xu and Z.H. Wang 1252

Analysis and Research of the BPM Model Optimization Based on Dynamic Process Mining
Z.Y. Yang, Y.S. Geng and X.G. Wang 1256

The Statistics Analysis of Degradation Data Based on the Degradation Amount Distribution
Y.Z. He, J.H. Wu, Y.D. Wang and W.H. Liu 1260

Statistical Analysis of Degradation Data Based on Random Coefficient Distribution
H.B. Liu, J.H. Wu, J.S. Wang and J.T. Zheng 1264

Statistical Analysis of Degradation Data for Random Coefficient Satisfied Multivariate Normal Distribution
Y.D. Wang, K.J. Gao, H.B. Liu and Y.B. Zhai 1269

The Parameter Estimation and Statistical Analysis of Constraint Optimization Penalty Function that Solved by Particle Swarm Optimization
M.T. Wu and Y. Yang 1273

Stock Comment Reasoning Model Based on Entropy Theory
H.Z. Song, X.X. Wang, Z.Y. Zhao, F. Zhou and X.Z. Song 1278

A Novel Method for Instance Level Schema Matching
Y.X. Han 1283

An Initial Point Selection Algorithm for K-Means Clustering
L.Q. Bai, Y.Y. Zhou and S.H. Zhang 1289

A Improved Screening Algorithm of the Dynamic Probability
C.J. Li, H.B. Li, R. Wang and D.K. Li 1293

The Research on University Libraries "Four-in-One" Cloud Computing Services Social System
X.F. Peng and S.D. Shi 1297

Biomechanical Study on Take-Off Technique of Junior Male Long Jumpers
P.H. Liu, Y.B. Zhang and X.D. Liang 1301

Optimization Model of Electricity Production in Iron and Steel Enterprises and its Application
T. Du and B. Wang 1305
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research on Movement Algorithms of the Police Wheeled Riot Armored Vehicle Based on the Visual Simulation</td>
<td>H.F. Lei and N. Shan</td>
<td>1309</td>
</tr>
<tr>
<td>A New Finite Element Simulation by Genetic Search Algorithm</td>
<td>L. Meng</td>
<td>1318</td>
</tr>
<tr>
<td>Global Dynamics of a HIV Infection Model with Delayed CTL Response and Cure Rate</td>
<td>Y.Y. Yang, H. Wang, Z.X. Hu and W.B. Ma</td>
<td>1322</td>
</tr>
<tr>
<td>Research of Sphere Decoding Detection Algorithm Based on Transmit Diversity</td>
<td>D. Wang, Y.Y. Zhou and X.W. Li</td>
<td>1328</td>
</tr>
<tr>
<td>Soma Evolutionary Algorithm Used for Chromium Sludge Regeneration Process</td>
<td>D. Novosad and L. Mackü</td>
<td>1333</td>
</tr>
<tr>
<td>Spatial Information Based on the Multi-Objective Programming of Fuzzy Kernel Clustering Image Segmentation Algorithm</td>
<td>X.Z. Zhao, M. Qi and Y.Y. Feng</td>
<td>1337</td>
</tr>
<tr>
<td>An Ant Colony Algorithm for Remote Satellite and Ground Integration Scheduling Problem in Parallel Environment</td>
<td>P. Gao, Y.J. Tan, J.F. Li and R.J. He</td>
<td>1341</td>
</tr>
<tr>
<td>An Application of HVG Method to Studying Variations of LDoS Flow Packet Sequence Pattern</td>
<td>Z.J. Huang, W. Peng, Y.J. Wang and Y. Wang</td>
<td>1347</td>
</tr>
<tr>
<td>Application of Data Flow Diagram on Simulation Software Test Case Generation</td>
<td>X.Z. Qi, C.S. Sun and Y.H. Dong</td>
<td>1352</td>
</tr>
<tr>
<td>Study on UAV Path Planning Oriented to Optimization of Positioning Error</td>
<td>C.D. Wu, J.Y. Yang, Y. Sun and Y.Z. Zhang</td>
<td>1357</td>
</tr>
<tr>
<td>The Standard Chinese Head Building Used for Numerical Calculation of Specific Absorption Rate of Electromagnetic Radiation</td>
<td>Y. Ma, Y.D. Wang and W.T. Ning</td>
<td>1362</td>
</tr>
<tr>
<td>A WLS-Based Linearized Auto-Localization Algorithm for Local Positioning Systems</td>
<td>C.D. Wu, Z. Li and Y.Z. Zhang</td>
<td>1368</td>
</tr>
<tr>
<td>Research on GA-DPSO Virtual Machine Scheduling Algorithm Based on Comprehensive Utilization of Host Resource</td>
<td>S. Huang, J.B. Yang and H.J. Ding</td>
<td>1373</td>
</tr>
<tr>
<td>Numerical Simulation on Spallation and Failure of Driven Pile</td>
<td>Y.X. Zhu, G.J. Liang, C. You and X.Z. Zhang</td>
<td>1377</td>
</tr>
<tr>
<td>Visual Simulation of High Altitude Gliding Torpedo Based on Creator and Vega</td>
<td>S.L. Xu</td>
<td>1381</td>
</tr>
<tr>
<td>Simulation on K-Means Optimum Clustering Mining Algorithm Based on Slope Classification</td>
<td>S.J. Zhou, S.J. Wu and H. Jiang</td>
<td>1385</td>
</tr>
<tr>
<td>Data Speech Coding Design Algorithm Based on DSP Technology</td>
<td>K.F. Yan</td>
<td>1389</td>
</tr>
<tr>
<td>A Fast Tag Anti-Collision Algorithm for RFID Systems</td>
<td>Z.H. Qian, N. Wu, T.P. Li, S.Q. Zhao and S. Zhu</td>
<td>1393</td>
</tr>
<tr>
<td>Research of a Method of Creating a Video File Based on Metadata</td>
<td>J.P. Guo</td>
<td>1397</td>
</tr>
<tr>
<td>Research of HLA Federate Automatically Generation Tool in Equipment Support Simulation</td>
<td>C.Z. Qu, H.Q. Gu, L. Gao and X.Z. Lv</td>
<td>1401</td>
</tr>
<tr>
<td>A Cloud Service Method Based on Indirect Addressing</td>
<td>J.L. Deng and G.R. Chen</td>
<td>1405</td>
</tr>
</tbody>
</table>
Research on Classification and Redundant Information Filtering of Massive Data in Big Database  
F. Wang and C.H. Sun  
1419

The Optimization of Project Time-Cost Based on Particle Swarm Optimization Algorithm  
H.M. Wei and R.G. Liu  
1423

Robust Observer for a Class of Linear System with Matched Uncertainty Based on LMI  
H.S. Ni, F.X. Chen and T. Zhang  
1427

Study of Badminton Net Shot Technology Based on Dynamics  
M. Lin  
1431

Application of the Mechanical Impedance of Body Arm Movement Based on the Virtual Tennis System  
L.H. Yang  
1436

Long Jump Motion Analysis Based on the Aerodynamics  
P.F. Shi  
1441

Research on Basketball Teaching Method Based on the Dynamic Access Control Model of SOA  
Q. He  
1445

An Integration Solution to Heterogeneous Database Based on XML  
H.B. Zhou  
1450

Research of Data Processing Method Based on Ajax Technology  
J.M. Li, B.Q. Zhang and Y.X. Wu  
1454

Texture Model Simplification Algorithm Based on Feature Preserving  
X. Rui, J.C. Quan, X.Y. Zhao and H.W. Wang  
1458

The Architecture Complexity Research Based on Multi-View Description  
G.Y. Li, R.F. Jia and Z. Ma  
1463

Artificial Neural Network Simulation for Finite Element Analysis  
L. Meng  
1468

Failure Data Analysis of Tether Net System  
Y. Chen and Q. Lin  
1472

Study for Intelligent Simulation Framework Structure of Equipment Support System Based ACP-Approach  
S.Y. Zhang and S.Z. Guo  
1476

Investigation on Collapse of Capillary Flow in Parallel and Wedge-Shaped Channels  
Y. Tang, X.Q. Chen and Y.Y. Huang  
1480

Experimental Research of the Intelligent Evacuation Inducible System in Building Fire  
H.C. Ran, L.H. Sun and X.Z. Gao  
1485

An Optimized Algorithm for Advanced Vehicle Anti-Lock Braking System  
X.H. Zeng and Y. Gao  
1489

Study of Airship Stability Based on a Low Resistance Profile  
S.C. Gu, D.X. Liu and Y.F. Wang  
1493

Model of Video Encryption Based on FPGA  
J.H. Zhao and X.H. Wang  
1497

Multi-Standards Deblocking Filter Based SIMD Technology  
T. Jia  
1501

Research on Aggregated Multicast Based on Wide-Sense Circuit Tree  
X.B. Zhang, J.L. Lan, Y. Chen and C.L. Li  
1506

Effect of Breakage on the Bipolarly Charged Particles  
X.R. Zhang and L. Zhou  
1512

Magnetic-Thermo Coupling Model for Cable Tension Sensor Based on Magnetoelastic Effect  
D.D. Tang, H.J. Zhu, J.L. Mou and M.F. Wu  
1516

Multi Satellites Scheduling Problem for Area Target Based on Grid  
P. Gao and Y.J. Tan  
1520

Stability Outage Analysis for LDPC Codes  
X.Z. Li and C. Zhang  
1525

Derrick Spectrum Analysis Based on ANSYS  
K.S. Wang and G.Q. Liu  
1529
Affinity Propagation for the Context Quantization
M. Chen, J.H. Chen and M.H. Guo 1533

Application of Immune Algorithm on Input Variable Dimension Reduction in Neural Network Modeling
Q.L. Dai 1537

Numerical Simulation of Filtration Process of Long Fiber Bundle Filter
Z.B. Liu, H. Wang and J. Tang 1541

New Fast Image Edge-Detection Algorithm Based on Composite Self-Adaption Predictor
X.Y. Dang 1546

Study on the Stress Concentration Law and Impacting Disasters in Roadway of Some Mine
T. Luo, Y.T. Gao and H.J. Lu 1550

A Multi-Label Classification Using KNN and FP-Growth Techniques
J.L. Mao, M.D. Li and M. Liu 1554

The Analysis of Energy Conservation Venture Investment in a Limited Partnership Based on the Game Model of Human Capital
Z.X. Zou and Y.X. Xue 1558

The Application and Implementation of ADO Technology in Industrial Management System Based on MFC
Z.P. Chen and Y.J. Yang 1562

Maintenance Project Scheduling Model Considered Flexible Resource with Capability Difference
C.Z. Qu, H.Q. Gu, H. Song and G.Y. Liu 1566

Research on Reform and Practice in Bilingual Teaching for Curriculum of Data Structure and Algorithm
J. Peng, Q. Xiong, Y. Xiang, L. Lei, Y.J. Pei and Z.M. Yang 1570

Production Efficiency of Construction Industry in Shaanxi Province Based on DEA
H.M. Wei and W.C. Niu 1574

Chapter 6: Information Technologies, WEB and Networks Engineering, Information Security, Software Application and Development

Applied Research and Modeling Based on Web Service Choreography Language
X.B. Yang 1581

Design and Research of Overall Risk Management Information System of Steel Group
X.B. Xu and S.B. Xu 1585

Complex Network Model and its Application
S. Xu and B.D. Zhang 1589

An Effective XML Identifying Feedback Documents Method Based on Two-Stage Ranking Model for Pseudo-Relevance Feedback
M.J. Zhong 1593

Warehouse Information Intelligent Optimization System
Q. Li and X.H. Cheng 1597

A Research of TOA Wireless Sensor Network Localization Algorithm
Y.Y. Li, Z.H. Qian, S.Q. Zhao, T.P. Li and S. Zhu 1601

Research on Characteristics of Horizontal Atmospheric Diffusion Coefficient Based on BP Neural Network
P. Shang, C.D. Wu, R.K. Han and W.J. Ma 1605

A Design of Remote Interactive Intelligent Gateway for Internet of Things
P.X. Yang, M.J. Wang, X. Liu and Q.L. Hao 1609

Design and Research of Remote Terminal Unit Based on Light Weight IP Stack
K.Y. Meng 1613

Police Traffic Management System Design Based on GIS
S.K. Zheng and G.H. Ma 1618

The Critical Technology Development Status of Machine Translation
D. Han and Z.H. Yu 1622

Network Management Framework Research Based on Mobile Agent
L.Z. Jiang, C. Liu, Z.X. Zhu and H.T. Jia 1626
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research on Grouping Strategy Firewall Technology</td>
<td>L.Z. Jiang and X.P. Liu</td>
<td>1630</td>
</tr>
<tr>
<td>Gateway Station Architecture of Satellite Access Networks for IMS-Based Core Networks</td>
<td>Y.F. Huang, X.N. Zhang, H.G. Lan and J.J. Wu</td>
<td>1634</td>
</tr>
<tr>
<td>The System Design and Development Based on Information Technology</td>
<td>D.X. Li, W.L. Jiang and H. Min</td>
<td>1638</td>
</tr>
<tr>
<td>High-Security Information Delay Scheme Based on Entangled States and Quantum Teleportation Technology</td>
<td>Q.Y. Zhao and X.Y. Li</td>
<td>1646</td>
</tr>
<tr>
<td>Bioinformatics Study on Relationship of Inflammation and Phospholipids Based on Cytoscape Software</td>
<td>Z.F. Shi, Y.F. Feng, W. Rui and Y.M. Zhong</td>
<td>1656</td>
</tr>
<tr>
<td>The Research and Application of Key Technology on Wireless Multi-Hop Mesh Network</td>
<td>Y.F. Lou and Z.J. Yuan</td>
<td>1660</td>
</tr>
<tr>
<td>Research on the Design and Implementation of Basketball Teaching Platform Based on Internet Technology</td>
<td>X.F. Cao</td>
<td>1664</td>
</tr>
<tr>
<td>Experimental Exploration of Emotional Communication Strategies of Foreign Language Teaching in Network Environment</td>
<td>Z.Y. Xiao</td>
<td>1669</td>
</tr>
<tr>
<td>Curve Analysis on Learning Potential and Multimedia Music Courseware Design Based on Web Technology</td>
<td>L. Ma</td>
<td>1675</td>
</tr>
<tr>
<td>Research on the Spatial Variability of Soil Nutrients Prediction Based on GIS</td>
<td>Z.H. Qin</td>
<td>1681</td>
</tr>
<tr>
<td>Cloud-Based Network Information Security Research and Application</td>
<td>D.D. Xin and L.Q. Huang</td>
<td>1686</td>
</tr>
<tr>
<td>Research on Network Partitioning Based on Expanded Grey Cluster Theory</td>
<td>Y.N. Shao, B. Wang and D.C. Liu</td>
<td>1690</td>
</tr>
<tr>
<td>Research on Network Testing Based on MPLS L2VPN</td>
<td>X.Y. Qian, S.M. Liu, C. Zhou and X.J. Guan</td>
<td>1695</td>
</tr>
<tr>
<td>Moving Icons on Windows XP Desktop Efficiently, Exactly and Eliminating Icons Bounce after Releasing</td>
<td>G.X. Yin</td>
<td>1699</td>
</tr>
<tr>
<td>Research on Structure Model of Building Information Modeling Technology</td>
<td>X.F. Guo</td>
<td>1704</td>
</tr>
<tr>
<td>Research on the Actual Combat-Oriented Mode of Network Security Supervision Based on Networked Resources</td>
<td>X.B. Xu</td>
<td>1710</td>
</tr>
<tr>
<td>A Transformation Approach between the Similar Language Text</td>
<td>D. Yidemucuo, A. Tohuti, Q. Yu and M. Roukeyanmu</td>
<td>1716</td>
</tr>
<tr>
<td>Integrating Knowledge Requirements into Topic Map for Online-Education</td>
<td>A.Q. Tang, W.N. Tan, T. Wang, L.S. Cui and S. Tang</td>
<td>1721</td>
</tr>
<tr>
<td>A Worst-Case Execution Time Analysis Approach Based on AOE Networks</td>
<td>L.L. Kong and L. Chen</td>
<td>1726</td>
</tr>
<tr>
<td>An Improvement for Process Management in Android Vehicle Terminal</td>
<td>F.G. Liu, M. Xiao and Z.H. Lan</td>
<td>1730</td>
</tr>
<tr>
<td>The Application of Multimedia-Based Technology</td>
<td>N. Zhang</td>
<td>1735</td>
</tr>
<tr>
<td>Framework and Assessment Model for Cloud Computing Security</td>
<td>W.M. Wu</td>
<td>1739</td>
</tr>
<tr>
<td>Design and Implement a Smart Data Gateway for Energy Management System</td>
<td>L. Jia, G.L. Zhang and Z.K. Wan</td>
<td>1743</td>
</tr>
<tr>
<td>Title</td>
<td>Author(s)</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Simulation Software Application in &quot;Power System Analysis&quot; Course Teaching</td>
<td>L.H. Sun and X.Z. Gao</td>
<td>1748</td>
</tr>
<tr>
<td>Urban Flood Control System Based on 3G-Wireless Network and GIS Technology</td>
<td>G. Zhang, Y. Shao, L. Zhang and W. Zhao</td>
<td>1752</td>
</tr>
<tr>
<td>Research and Development of Radar Combined Teaching Platform</td>
<td>Z.H. Zhang, W. Wang and P. Zhang</td>
<td>1756</td>
</tr>
<tr>
<td>Case Recommendation Based on Fuzzy Clustering in Personalization Web Services</td>
<td>X.G. Chen, J.L. Zhang and J.R. Cheng</td>
<td>1760</td>
</tr>
<tr>
<td>Design of Collaborative Workflow Support Environment Based on Messaging</td>
<td>Y. Zheng, S. Ying and H. Guan</td>
<td>1764</td>
</tr>
<tr>
<td>The Sprinkler Irrigation System Based on Wireless Sensor Networks</td>
<td>X.H. Xu, W.X. Wang, Y.M. Hu and S.B. Zhai</td>
<td>1769</td>
</tr>
<tr>
<td>The Application of Multimedia Grid in Barrier-Free for Special Education</td>
<td>L.P. Yang, W. Wang and C.L. Li</td>
<td>1774</td>
</tr>
<tr>
<td>Modeling Spread of Information in Finite Hierarchical Networks</td>
<td>F. Liu and Y. Zheng</td>
<td>1778</td>
</tr>
<tr>
<td>Analysis of Time Series Prediction in Wireless Sensor Networks' DPM</td>
<td>J. Zhao, J. Zhang, C.M. Zhou and C. Wang</td>
<td>1782</td>
</tr>
<tr>
<td>Realization of Deep Web Database Optimized Access Based on Correlation Feature Rule</td>
<td>F. Wang and C.H. Sun</td>
<td>1786</td>
</tr>
<tr>
<td>Research of Role's Creation-Based Access Control Policy</td>
<td>J.M. Li, B.Q. Zhang and Y.X. Wu</td>
<td>1790</td>
</tr>
<tr>
<td>Study on Testing of LTE Terminal Layer Two Based on TTCN-3</td>
<td>F.T. Chen, M. Zhu and Z.H. Qiu</td>
<td>1799</td>
</tr>
</tbody>
</table>

**Chapter 7: Power and Energy, Electric and Magnetic Systems, Electronics and Microelectronics, Embedded and Integrated Systems**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Design of Gilbert-Type-Based Zero Intermediate Frequency CMOS Mixer</td>
<td>R.M. Li, L. Gong, Z.P. Chen and W.L. Jiang</td>
<td>1811</td>
</tr>
<tr>
<td>Modeling and Optimization for Capacitive Converter of Energy Harvester</td>
<td>J.X. Huang, J. Zhan and L. Niu</td>
<td>1815</td>
</tr>
<tr>
<td>A CAN Topology Optimization of Pure Electric Vehicle</td>
<td>X. Chen, J. Wu, Y. Zhao and H.T. Bai</td>
<td>1819</td>
</tr>
<tr>
<td>Neuron Chip and MCU Double Processor Research</td>
<td>S.Y. Zhi and X.J. Ling</td>
<td>1824</td>
</tr>
<tr>
<td>The Electromagnetic Force Influencing Research of a Rectangular Cross-Sectional Rail Launcher by Armature Position</td>
<td>C.W. Yang, X.J. Li and H.R. Wu</td>
<td>1828</td>
</tr>
<tr>
<td>Study on Transient Characteristic of the DFIG LVRT</td>
<td>J.H. Zhang, R. Luan and H.R. Shen</td>
<td>1832</td>
</tr>
<tr>
<td>Over-Voltage Suppression of Electric Railway Articulated Neutral Insulator</td>
<td>Z.J. Qu, Y.X. Liu, M. Zhou, J.J. Jiang and L. Liu</td>
<td>1837</td>
</tr>
<tr>
<td>A Review on Memristive Stateful Logic</td>
<td>X.D. Fang, Y.H. Tang and J.J. Wu</td>
<td>1845</td>
</tr>
<tr>
<td>Analysis and Application of the Neutral Voltage in Resonant Grounding Grid</td>
<td>Z.R. Chen and Z.Q. Li</td>
<td>1850</td>
</tr>
<tr>
<td>On the Security and Stability Analysis of Power System Based on Big Data Mode</td>
<td>D.Q. Wei, B. Wang and X.P. Ji</td>
<td>1854</td>
</tr>
</tbody>
</table>
Research of PCA Based Power System Transient Stability Assessment  
Z.H. Ma, D.C. Liu and B. Wang  1858

Temperature Compensation Technique in Cable Tension Sensor Based on Magneto-Elastic Effect  
D.D. Tang, H.J. Zhu, M.F. Wu and J.L. Mou  1863

Implementation of Decoder for Effective Quasi-Cyclic LDPC Codes Based on FPGA  
J.Q. Han and L. Liu  1867

The Design of an Embedded File System Based on the Flash  
S.M. Liu, X.Y. Qian, C. Zhou and X.J. Guan  1872

Application and Selection to AC and DC Voltage Grades for Microgrids  
D.W. Yang, J.H. Yang, F. Lin, J. Su and H.T. Liu  1876

Design and Optimization of a New Micro-Hotplate for Gas Sensor  

The Research of the Real-Time Performance of Power Flow Visualization Based on Digital Power Distribution Network  
Z.L. Piao, L. Wang, J. Wang and Y.X. Wang  1884

Design of Low-Voltage Power Distribution System  
Y.L. Fan and Q.E. Li  1889

Infrared Thermal Imaging of Power Grid Fault Information Acquisition System Based on GIS  

Numerical Simulation of the Effects of Operating Parameters on the Electrical Performance of DEFC  
D. Tang and W.S. Zhao  1897

Research on Evaluation Method of the Bridge Strengthening Effect Based on Fiber Optic Sensor  
Y.J. Wei, J.T. Zhang, Y.L. Zhang, X.C. Xi, K. Li and S.C. Liu  1901

The Design of a Low Cost CANopen Slave Node Based on STC90C514RD  
Z.P. Chen and C.Q. Jia  1905

Research on the Dynamic Response of Capacitive RF-MEMS Switch  
M.X. Song and R. Wu  1909

The Research of an Energy Recovery with SRM during Backflow Period  
M. Xia  1913

A Research of Spacecraft Battery On-Orbit Reconditioning  
X.P. Liu, W.W. Wang, X.N. Chen and J. Weng  1917

A Novel Full-Automatic Garbage Salvage Ship  
K.L. Luo, X.D. Li, D.R. Song, P. Wang, J. Fu and L. Zhang  1921

Photovoltaic Super-Short Term Power Prediction Based on BP-ANN Generalization Neural Network Technology Research  
X.X. Shang, Q.J. Chen, Z.F. Han and X.D. Qian  1925

Chapter 8: Communication, Signal and Image Processing, Data Acquisition, Identification and Recognition Technologies

Propagation Delay Characteristics Analysis in LEO Satellite Multi-Beam Antenna Coverage  
M. Ma, X. Luan, B. Li and J.J. Wu  1931

Design and Implementation of Multimedia Transmission System Based on Broadband PLC  
J.J. Xie, D.P. Lin, Q.Y. Liu and S.Y. Long  1936

Channel Quality Approximation Based on Shadow Fading Model in GEO Mobile Satellite System  
Y.D. Zheng, M.K. Dong and J.J. Wu  1941

An Application of Soft Decision for Context Recognition on Reading  
Y.F. Huang, B.H. Tsai and C.M. Chen  1945

Discussion on Some Problems in Signal and System  
J.B. Xu  1949

Research on Uplink Semi-Persistent Scheduling in LTE System  
J.K. Gao, D.M. Zhang and F.T. Chen  1952
Research on Defect Images Fusion Method Based on Regional Energy Similarity
Y.L. Wei, B. Li and Y.Y. Fan
1957

Biomimetic Pattern Recognition for Classification of Proteomic Profile
X.L. Yang and Q. He
1961

Research of Wireless Transmission Based on Pulse Signal
K.S. Zhang, H. Liu and W. Tang
1965

Factors of Vibration in Cutting Based on Digital Signal Processor (DSP) and Analysis by MATLAB
H.T. Zhu, X.B. Li and J.X. Li
1970

Research on the Communication of the Serial Port between the Host Personal Computer and CC2430
Z.H. Xin, X.Y. Wu, Q. Zhang and L.Y. Hu
1974

Texture Feature Extraction and Classification of Pork Loin Ultrasonography Images
T. Li, J.X. Zhang and Q. Sun
1978

Enhance of Synchronization of Communication in TD-LTE RF Conformance Testing Instrument by GPMC
F.T. Chen, L.Q. Guo and P.R. Wang
1982

Research on the Design of Intelligent Access Control System Based on Radio Frequency Technology and Image Processing Technology
H. Ding
1987

Application of Spatial Adaptive Filter in the Tilting Mode of Digital Image Restoration
Y.F. Wang
1992

Factor Analysis of Technical Movement of Image Processing Technology in the Dance
Y.X. Yang and H.Y. Li
1997

Research on the Real-Time Infrared Tracking Athletics Image Registration Based on Computer Vision
H. Wang
2002

Research on the Automatic Multilevel Thresholding for Athletic Image Segmentation Based on Block Sampling and Genetic Algorithm
X.G. Li
2007

Research on the Design of Football Teaching System Based on Computer 3D Human Motion Recognition
C.W. Pu
2013

Research on the Application of Assisted Image Analysis System in the Fusion of Landscape Architecture and Landscape Painting Theory
S.X. Zou
2018

Research of Low Altitude Communication Protocol Conversion Process Based on Pattern Match
W.F. Xu, S.F. Liu and L. Han
2023

Application of Mixed Programming with MATLAB and VC++ in Research of Satellite Mobile Communications Fading Channel
2027

A New Method for Location Entity Recognition
Z.N. Zhong, F.C. Liu, L. Lei and N. Jing
2031

The Research on Hybrid Communication Model for Trojan Based on P2P
Y.Q. Lu, F. Yong and H. Xiang
2038

The Influence of Positional Parameters on the Effect of a Noise-Jammer Based on Broadband Acoustic Propagation Model
K.L. Miao, R.J. Yang, X. Xiong and J.H. Han
2043

Three-Dimensional Segmentation Research of CT Abdominal Artery Image Sequence
X.L. Song, Q. Wang and Z.G. Jiang
2048

The Accuracy of Tooth Image Reconstruction from Spiral CT, Micro-CT, and Cone-Beam CT Scans
L. Sun, Y.J. Guo, X.J. Liu, H.B. Li, L. Liu and Y.X. Gao
2053

Study on a Self-Adapt Streaming Media Data Transmission Package Based on RTCP
J.X. Feng and Z.H. Hu
2058

An Improved Adaptive Retransmission of RLP
W. Zhi and Z.H. Hu
2062
Edge Detection of Binary Image Based on Memristors
J. Zhou, J.J. Wu and Y.H. Tang
2066

One Solution to Physical-Layer Authentication in Wireless Communication System
Z.Y. Shi, C.Z. Zhang, C.D. Zhao, L.F. Huang and Y.F. Zhao
2071

Hardware Implementation of Doppler Shift Estimation and Compensation in LEO Satellite Communication
2076

Interplex for Constant Envelope in LEO Satellite Communication System
2081

Blind Recognition of Reed-Solomon Codes Based on Histogram Statistic of Galois Field Spectra
H. Xie, F.H. Wang and Z.T. Huang
2088

Joint Adaptive Beamforming of Interference Covariance Matrix Reconstruction and Steering Vector Estimation
X.K. Huang, L.K. Liu, Y.M. Sun and J.J. Yang
2092

Research on Ceramic Artworks’ Anti-Counterfeiting and Authentication Based on Two-Dimensional Code
M. Liu, Y. Xie and Y.L. Zhang
2096

Feature Extraction for Electromagnetic Environment Complexity Classification Based on Non-Negative Matrix Factorization
B. Li, Z. Yang, L. Zhang and Z.H. Fu
2100

The Development and Key Technologies of Unmanned Aerial Vehicles Mission Planning System
H.F. Zhang, Y.S. Zhang, W. Ye, L.L. Zhao and H. Zhi
2104

Experimental Visualization Study on the Explosion Process of Gasoline Vapor in Narrowly-Confined Space
2108

Research of Medical Image Non-Rigid Registration Based on TPS-SEMISURF Algorithm
A.S. Dong, B.Q. Yang, D.Y. Zhao, B.C. He, L.B. Zhang, G.M. Yang, Q. Tong, T.H. Gao and H.Y. Jiang
2112

Using Crowdsourcing to Establish the Big Data of the Intelligent Transportation System
K.F. Yan
2118

The Design and FPGA Implementation of a Polyphase SRRC FIR Filter in DTMB
J. Chen, C.Y. Liu and X.P. Li
2122

The Pilot Design of MIMO-OFDM System
S.Y. Cui, Y. Zhang and N.Q. Li
2127

Research on Dual Core Mechanism of Wireless Telemetry System
X.M. Peng, Q. Li, G.C. Zhang, Q.L. Liu and B. Xu
2131

Ultrasonic Properties Effects on Gas Bubble Radial Oscillations in Liquids
J. Cai, X.Q. Chen and Y.Y. Huang
2136

Chapter 9: Information Technologies in Management, Logistics, Economics, Finance and Assessment

To Adapt to Changes in the User Long-Term and Recent Interest of Personalized Recommendation Model
H.Y. Chen and J. Pu
2143

Time Series Model Based Earning Forecasting
X.R. Jiang and Y.Y. Cui
2147

Wisdom Financial System
2151

Wisdom Bank System
2155

Risk Management Strategy of Floorball in Universities
X.Q. Guo, L. Jiang and H.J. Qu
2159

Analysis of Reserve Scale Optimization of Equipment Material for Emergency Operation
T. Ge, P. Gu, J. Liu and X.F. Xu
2162
<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research on Efficiency of Engineering Cost Consulting Industry in</td>
<td>C. Wang</td>
<td>2166</td>
</tr>
<tr>
<td>China Based-on DEA Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Static Game Study between Food Enterprises Based on Value Perception</td>
<td>Y.F. Yin, Y. Deng and X.L.</td>
<td>2171</td>
</tr>
<tr>
<td>Differences of Food Quality and Safety</td>
<td>Sang</td>
<td></td>
</tr>
<tr>
<td>Empirical Study of Carbon Market</td>
<td>Zhao</td>
<td></td>
</tr>
<tr>
<td>A Revenue Sharing Model for Closed-Loop Supply Chain of Green</td>
<td>H.W. Wang, Y.S. Yan and L.</td>
<td>2179</td>
</tr>
<tr>
<td>Agricultural Products</td>
<td>Wei</td>
<td></td>
</tr>
<tr>
<td>The Analysis of South Lake Based on Hedonic Model in Xi'an Influence</td>
<td>X.K. Gao and F. Zhang</td>
<td>2183</td>
</tr>
<tr>
<td>on the Peripheral Real Estate Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study on the Effect of Regulation Project of Bifurcation on Flow</td>
<td>J. Chen, A.F. Huang, G.H. Sun</td>
<td>2188</td>
</tr>
<tr>
<td>Characteristics of Sink Reach of River Flowing into the Lake</td>
<td>Y.T. Li</td>
<td></td>
</tr>
<tr>
<td>Evaluation Method of Talents Comprehensive Skills on</td>
<td>X.J. Chen, J.Z. Liu and X.</td>
<td>2192</td>
</tr>
<tr>
<td>Japan-Oriented Software Outsourcing</td>
<td>Peng</td>
<td></td>
</tr>
<tr>
<td>On Improving Food Safety Informationalized Management in China</td>
<td>M.Y. Zhou</td>
<td>2196</td>
</tr>
<tr>
<td>Fresh Food Quality Assurance System and Tracing Technology</td>
<td>Q.Y. Zhang and J. Liu</td>
<td>2201</td>
</tr>
<tr>
<td>Comparative Research of City's Financial Sustainable Development in</td>
<td>J. Zhou, N. Li and L. Li</td>
<td>2205</td>
</tr>
<tr>
<td>Shaanxi Province Based on the Factor Analysis Method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport Pickup and Delivery Scheduling with Two Kinds of Vehicles</td>
<td>Z.Z. Xu and J.F. Tang</td>
<td>2211</td>
</tr>
<tr>
<td>Supplier Diversification under Inventory Holding Cost Increase and</td>
<td>Wang</td>
<td></td>
</tr>
<tr>
<td>Binomial Yields</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Simple Analysis of Applying and Meaning of Estimate of the Urban</td>
<td>Y. Geng</td>
<td>2220</td>
</tr>
<tr>
<td>Living Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design of Equipment Management System Based on ERP</td>
<td>C.J. Li, H.B. Li, R. Wang and</td>
<td>2230</td>
</tr>
<tr>
<td>A Hybrid Knowledge-Base System Approach for Disaster Emergency and</td>
<td>J.P. Guo</td>
<td></td>
</tr>
<tr>
<td>Relief Decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh Food Quality Assurance System and Tracing Technology</td>
<td>Q. Jiang, H.Y. Hu, X.F. Jia,</td>
<td>2234</td>
</tr>
<tr>
<td>Comparative Research of City's Financial Sustainable Development in</td>
<td>C.P. Lu and R.J. Wang</td>
<td></td>
</tr>
<tr>
<td>Shaanxi Province Based on the Factor Analysis Method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport Pickup and Delivery Scheduling with Two Kinds of Vehicles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research in Assessment Index System of Automotive Eco-Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier Diversification under Inventory Holding Cost Increase and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binomial Yields</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Simple Analysis of Applying and Meaning of Estimate of the Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design of Equipment Management System Based on ERP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Hybrid Knowledge-Base System Approach for Disaster Emergency and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relief Decision</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>