

International Conference on Artificial Intelligence and Industrial Engineering 2015

(AIIE 2015)

Advances in Intelligent Systems Research Volume 123

**Phuket, Thailand
26-27 July 2015**

ISBN: 978-1-5108-0645-0

Printed from e-media with permission by:

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



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

Copyright© (2015) by Atlantis Press
All rights reserved.
<http://www.atlantis-press.com/php/pub.php?publication=aiie-15>

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact Atlantis Press
at the address below.

Atlantis Press
29 avenue Laumière
75019 Paris
France

contact@atlantispress.com

Additional copies of this publication are available from:

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

TABLE OF CONTENTS

COMPUTATIONAL INTELLIGENCE

| | |
|--|-----------|
| Super-Resolution for Surveillance Video Via Adaptive Block-matching Registration | 1 |
| <i>T. Lu, W. Yang, Y. J. Wan</i> | |
| Research on Natural Interactive 3D Registration Algorithm Based on the Detection of Human Hand Features | 4 |
| <i>J. C. Fan, Y. Z. Liu</i> | |
| Wireless Indoor Positioning Algorithm Based on PCA | 8 |
| <i>H. L. Li, W. Quan, G. Ji, Z. H. Qian</i> | |
| A New Face Recognition Algorithm Based on Haar-Like Features and SRC with Gentle Adaboost | 10 |
| <i>G. M. Zhu, Z. L. Ying, L. W. Huang</i> | |
| Effective Recognition and Statistic of Engagement Resources in Persian Discourses | 13 |
| <i>W. Li, W. Y. Liu, M. Z. Yi</i> | |
| The Detection of the Liquid Drop Fingerprint's Abnormal Values Based on Boxplot Method | 17 |
| <i>Q. Song, M. Y. Qiao, S. H. Zhang, L. Yang</i> | |
| A New Image Retrieval Algorithm Based on Sparse Coding | 21 |
| <i>R. X. Wang, G. H. Peng, H. C. Zheng</i> | |
| A Method to Detect Errors in Electronic Discharge Summaries Based on Named Entity Recognition | 25 |
| <i>D. S. Yuan, T. S. Zhou, Y. Tian, J. S. Li</i> | |
| Fruit Image Segmentation Based on a Colour Perception Neural Network Inspired by the Retina Structure | 29 |
| <i>Q. Y. Sun, Q. X. Wu, X. Wang, L. Hou</i> | |
| Study on Zenithal Pedestrian Detection Algorithm | 33 |
| <i>D. Y. Shen, M. H. Xu</i> | |
| A Novel Hand Gesture Tracking Algorithm Fusing Camshift and Particle Filter | 37 |
| <i>M. H. Yao, Q. L. Gu, X. B. Wang, W. X. He, Q. Shen</i> | |
| Hand Gesture Tracking Based on Improved Level Set Algorithm | 41 |
| <i>N. G. Yu, M. Guo, F. F. Mo, X. G. Ruan</i> | |
| Auto-Marking Image Segmentation Based Manifold Ranking | 45 |
| <i>X. H. Zeng, R. H. Yi, S. W. Zhu, S. S. He</i> | |
| Text Location in Uneven Illumination Images Based on Homomorphic Filtering and Color Distribution | 49 |
| <i>F. C. You, Q. Li, W. B. Bu</i> | |
| The Optimization of Task Assignments on Hadoop Platform for Large-Number Image Processing | 52 |
| <i>G. R. Zhang, Q. X. Wu, L. P. Huang, B. S. Chen</i> | |
| Optimal Trajectory Tracking Control for Underwater Profiling Monitoring Vehicle | 56 |
| <i>J. Yuan, C. Hui</i> | |
| Multiple Features Fusion for Front-View Vehicle Detection | 59 |
| <i>M. L. Men, F. Dai</i> | |
| Improved BING Method and Its Application in Object Detection | 64 |
| <i>J. C. Cheng, Y. L. Li, S. J. Wang</i> | |
| Reliability Analysis Based on Coupled Relationship | 69 |
| <i>W. L. Pan, H. Wang</i> | |
| Three Dimensional Finite Element Analysis of Gegou Aqueduct During Operation Period | 72 |
| <i>Y. W. Li, Y. F. Zhu, Q. Y. Chen, W. He</i> | |
| Natural Frequencies of The Aqueduct Effected by Water Level | 75 |
| <i>K. B. Ren, Y. F. Zhu, G. Zhao, Q. Y. Chen, W. He</i> | |
| Research of Encryption Based on Chaotic Cellular Automata | 78 |
| <i>S. L. Liang, S. Gong, X. B. Zhao, D. F. Wang, G. Y. Li</i> | |
| Temperature Measurement of An Inclined Cylinder Using Optical Interferometry | 82 |
| <i>J. R. Zhu, J. M. Dai, X. M. Cheng, Y. Y. Li</i> | |
| The Research of Observer for Uncertain Nonlinear Neutral Delay Systems | 85 |
| <i>R. H. Zhang</i> | |
| Transmission Properties of The Composite Structure Constructed by Air and Single Negative Metamaterials | 88 |
| <i>T. H. Feng</i> | |
| The Dynamic Characteristic Analysis of A Pedestrian Bridge | 91 |
| <i>G. Zhao, Q. Y. Chen, K. B. Ren, Y. F. Zhu, W. He</i> | |
| Two Questions of Research on the Fairing for C-Bézier Curves | 94 |
| <i>Z. N. Li, H. Zhou, Y. L. Chen</i> | |
| Research on Distribution Disparity of Tourists In Chinese National Parks | 98 |
| <i>Y. P. Bai, L. J. Gu, Y. H. Zhang</i> | |

INTELLIGENT SYSTEMS AND APPLICATION

| | |
|--|------------|
| Design and Implementation of Embedded Driver Fatigue Monitor System | 103 |
| <i>H. M. Shen, M. H. Xu</i> | |

| | |
|---|-----|
| A Sleep Monitoring System Based on Cloud Architecture | 107 |
| <i>Z. H. Li, Z. Q. Yu, W. L. Zhang</i> | |
| Design and Implementation of a Remote Monitoring System for The Elderly Based on Cloud Architecture | 110 |
| <i>Y. Q. Zhao, Z. Q. Yu</i> | |
| Fuzzy Inference System for Modelling Failure Modes in a Ropeway for Massive Transportation | 113 |
| <i>L. F. Villa, O. L. Quintero Montoyab, L. Castañeda, G. Mejia</i> | |
| Applying Image Recognition Technology to Intelligent Security Management Systems | 117 |
| <i>Y. N. Chung, T. C. Lu, Y. X. Huang, C. T. Lin, C. C. Yu, C. K. Li</i> | |
| FOMs of Consciousness Measurement | 121 |
| <i>W. S. Li, Y. T. Li</i> | |
| Stiffness Modulation of A1-DOF Robotic Manipulator with Antagonistic Actuators | 125 |
| <i>J. H. Lee, S. Okamoto</i> | |
| An Application System to Detect Network Intruder | 129 |
| <i>L. S. Yu, K. Chanthala</i> | |
| Design and Implementation of the Multi-parameter Laser Test System | 132 |
| <i>H. W. Yang, Y. H. Shan, X. M. Gao</i> | |
| The Research of Fault Diagnosis with Time-Delay Switched Systems | 136 |
| <i>H. Y. Sun</i> | |
| Design of the Visual Model Platform of Testing System Based on GMF | 139 |
| <i>X. M. Liu, S. M. Liu, Y. P. Liu, J. Wu</i> | |
| The Application of Intelligent Prediction Nonlinear PID Control in Nc Position Control | 143 |
| <i>Y. Zhang, Y. G. Gong, L. F. Chen</i> | |
| A Heterogeneous Information Processing System Based on Smart City | 146 |
| <i>Y. Li</i> | |
| Analysis of OTT Service Influence on Mobile Communications Network | 149 |
| <i>Y. Li, J. Li</i> | |
| Swot Analysis of Domestic Market of Wearable Sports Equipment Based on Internet of Things Technology | 152 |
| <i>Y. Xu</i> | |
| PEST Analysis of Digital Fitness Equipment Market Based on Internet of Things Technology | 155 |
| <i>C. M. Yuan</i> | |
| The Mesoscale Numerical Simulation of the Effectiveness of an Artificial Precipitation Enhancement Operation | 159 |
| <i>J. Wang, Y. W. Chen</i> | |
| The Ensemble Forecasting Technique of the Thunderstorm | 163 |
| <i>Y. W. Chen, J. Wang</i> | |
| An H17 Rim-Driven, Ontology-Based Approach to Healthcare Knowledge Base Development | 166 |
| <i>Y. F. Zhang, P. F. Li, Y. Wang, J. S. Li</i> | |
| Research on Sensor Network Construction for Drop and Pull Transportation System | 170 |
| <i>Y. L. Liu</i> | |
| An Implementation of Configurable and Small- Area AES IP Core Oriented Avalon Bus | 173 |
| <i>X. C. Tao, D. L. Zhang, Y. K. Song</i> | |
| Construction and Empirical Study of Social Business Model on Niche Products | 177 |
| <i>Q. W. Ye, Q. Zhang, S. Zhong, G. X. Song</i> | |
| The Online Business Model of Individual Customization Accessories | 181 |
| <i>Y. Yu, H. Y. Ru, Y. J. Tian</i> | |

ARTIFICIAL NEURAL NETWORK

| | |
|---|-----|
| Gesture Segmentation Using Spiking Neural Networks Inspired by the Visual System | 184 |
| <i>L. P. Huang, Q. X. Wu, G. R. Zhang, X. Wang</i> | |
| Anomalous Propagation Echo Detection Using Neural Network and Discrete Wavelet Transform | 188 |
| <i>H. Lee, E. K. Kim, S. Kim</i> | |
| Sensitivity Analysis of Factors Influencing the Anchorage Force of Soil Anchor Rods Based on the Orthogonal Experiment – ANN | 191 |
| <i>B. Q. Wang, J. B. Hao</i> | |
| Parameter Sensitivity Analysis of Geotechnical Engineering System Using Neural Network Ensemble | 196 |
| <i>L. X. Pan, Y. R. Zhang, M. S. Cao, D. Novak</i> | |
| Neural Network Approach for Underwater Acoustic Communication in the Shallow Water | 200 |
| <i>K. C. Park, J. R. Yoon</i> | |
| Application of Artificial Neural Network to Predict Water Levels in Virginia Key, Florida | 203 |
| <i>W. Huang, S. D. Xu, Y. N. Chao</i> | |
| Neural Network Modelling of Flow In Yinluoxia Station Based on Flow in Zhamashike Station in Heihe River, China | 206 |
| <i>W. Huang, Y. N. Chao, S. D. Xu, Y. Cai, F. Teng, B. B. Wang</i> | |

DATA MINING AND SIGNAL PROCESSING

| | |
|--|-----|
| A Method of Data Synchronization Based on Message Oriented Middleware and Xml in Distributed Heterogeneous Environments | 210 |
| <i>Z. Y. Lu, Z. B. Guo</i> | |

| | |
|--|-----|
| Research on High-Speed Data Acquisition and Real-Time Signal Processing Method Based on Tunable Diode Laser Spectroscopy | 213 |
| <i>X. F. Du, D. M. Dong, L. Z. Jiao, P. C. Han, Y. Lang</i> | |
| Restraint Method Research for Coupling Random Error Based on High Dimensional Data Set Multiscale Analysis | 217 |
| <i>X. Y. Zhou, J. Q. Wang, Z. M. Wang, Y. Y. Jiao, X. G. Pan, C. E. Xiao</i> | |
| An Indoor Electromagnetic Testing Antenna Design with Better Standing Wave Ratio and Gain | 221 |
| <i>H. Lv, X. S. Xia, Y. L. Yu, Z. X. Hua</i> | |
| A Behavior Approach to Instant Messaging Worm Detection | 225 |
| <i>W. Guo, L. Wang, H. X. Zhou</i> | |
| Key Information Extraction from Broadcast in Traffic Domain | 229 |
| <i>J. B. Gu, Y. F. Xie, Y. Y. Wang, X. Xie</i> | |
| Cycles Embedding in Conditional Faulty Enhanced Hypercubes | 233 |
| <i>R. L. Qin, H. M. Liu</i> | |
| Exploring the Interpurchase Time of Two Interdependence Brands with Bivariate Stochastic Model | 237 |
| <i>H. H. Huang</i> | |
| A New Approach Using Weibo Data to Predict the China Shanghai Stock Market | 239 |
| <i>T. Xu, H. Zhang</i> | |
| At 100mV Power Supply Accurate Ultra-Compact I-V Models for SMIC 0.18 μm Process MOS Transistors with Analyses of CMOS NOT Gate and Its Amplifier | 243 |
| <i>W. S. Li, J. J. Song, Y. T. Li</i> | |
| Quantitative Efficacy Assessment of AAV2-EPO to DR | 246 |
| <i>H. Y. Liu, Q. L. Li, Y. F. Qian, J. F. Zhang</i> | |

INTELLIGENT AND OPTIMIZATION ALGORITHM

| | |
|--|-----|
| Conformal Array Pattern Synthesis Using a Hybrid GA/ABC Algorithm | 250 |
| <i>C. Liu, L. H. Fan</i> | |
| E-Health Cross Layer Design | 254 |
| <i>Y. Z. Luan, G. L. Ren, P. R. Zhang</i> | |
| An Improved DV-HOP Localization Algorithm in Wireless Sensor Networks | 257 |
| <i>Y. R. Wang, W. Quan, G. Q. Wang, Z. H. Qian</i> | |
| An Improved Isomap Algorithm Based on LP-Centers | 260 |
| <i>W. W. Chen, W. J. Mao</i> | |
| Optimization of Wet Multi-disk Clutch Based on Improved Genetic Algorithm | 264 |
| <i>Z. L. Zhou, Q. Li, L. Y. Xu, Q. M. Cao</i> | |
| A Digital Watermarking Algorithm Based on Image Similarity Calculation | 268 |
| <i>J. Yang, J. Qian, T. L. Ma, H. X. Zhang</i> | |
| An Optimization Algorithm for Pedestrian Detection ahead of Vehicle | 272 |
| <i>A. Y. Guo, M. H. Xu, F. Ran, C. Q. Du</i> | |
| A Mapping Algorithm of Scientific Workflow from BPMN to BPEL | 276 |
| <i>X. Tian, H. S. Li, Y. J. Huang, Q. Cai</i> | |

SOFTWARE PROCESS

| | |
|--|-----|
| The New Java Generic Mechanism and Its Application | 280 |
| <i>F. Tian, H. H. Shi, M. T. Yan</i> | |
| Research on a New Abstract Programming Language for Generic Constraints | 283 |
| <i>Z. K. Zuo, C. J. Wang, H. H. Shi, Z. You, W. P. Xie, J. X. Lu</i> | |
| Comparative Study on Visualizing Vector Graphics in WebGIS Applications with SVG and Flash Technologies | 286 |
| <i>M. Li, X. H. Yang, Q. W. Chen, G. Li, Y. Cao, J. Q. Zhang, H. Li</i> | |
| Improving Problem Solving and Programming Skills through Learning Games of an Inter-competition Type | 290 |
| <i>Y. C. Lee, J. Y. Ko, S. B. Kim</i> | |
| Knowledge Representation Structure for Cloud Platforms: SUMMUS Semantic Encoding Forest | 294 |
| <i>S. S. Xie, Y. Tang, Z. X. Miao, L. Sun, Y. He</i> | |
| Location Based Friend Recommendation for Online Social Network with Hypercube | 297 |
| <i>J. Q. Zhu, M. Zheng</i> | |
| Simulation and Performance Analysis of Communication System Based on OFDM | 301 |
| <i>J. Cai, L. Wang, Y. Z. Wang</i> | |
| An Investigation on Public Perceptions and Adoption Attitudes towards Electric Vehicles and the Roles of Government Policies in Beijing | 305 |
| <i>L. Li, Y. Gu, J. J. Wang</i> | |
| The Importance of Innovation during the Design Process of Rain Rubber Boot | 309 |
| <i>Y. Yu, Y. T. Wang, H. Y. Ru</i> | |
| Analysis and Strategies of the Common Tunnel Problems | 312 |
| <i>S. P. Huang, M. L. Guo</i> | |
| The Metering Research of Words in 2011 Tibetan Newspapers | 315 |
| <i>H. Cao, J. S. Wei, Z. X. Leng Ben, W. Yang</i> | |

| | |
|---|-----|
| Modelling Co-movement between Onshore and Offshore RMB Exchange Rate Based on Copula | 318 |
| <i>J. Z. Du, K. K. Lai</i> | |

ARTIFICIAL INTELLIGENCE AND CONTROL AUTOMATION

| | |
|---|-----|
| Novel Stable Walking for Humanoid Robot Using Particle Swarm Optimization Algorithm | 322 |
| <i>T. T. Huan, H. P. H. Anh</i> | |
| Two-Step Image Hallucination and Its Application to 3D Medical Image Super-resolution | 326 |
| <i>Y. Kondo, X. H. Han, X. Wei, Y. W. Chen</i> | |
| Elongation Prediction of Strip Steel in Annealing Furnace based on KPCA and Optimized LSSVM with ICPSO | 330 |
| <i>C. Wang, J. H. Wang, S. S. Gu, X. K. Fang, Y. X. Zhang</i> | |
| Construction of Probabilistic Atlas and Its Application to Detection of Lacunar Infarcts | 334 |
| <i>H. Tanaka, A. Shiino, T. Tateyama, X. H. Han, X. Wei, Y. W. Chen</i> | |
| Statistical Shape Analysis for 3D Facial Images | 337 |
| <i>M. Nakatsu, X. H. Han, R. Kimura, Y. W. Chen</i> | |
| Generalized Super-Vector Coding for Image Classification | 341 |
| <i>M. Nakajima, Y. W. Chen, X. H. Han</i> | |
| Multi-DOF Robotic Manipulator Trajectory Controlling based on Minimum Energy Optimization | 345 |
| <i>H. Du, J. M. Du, L. A. Chen, Z. W. Mai, X. H. Liu, H. Z. Cai</i> | |
| A Video Surveillance Oriented 3D Terrain Simplification Algorithm | 350 |
| <i>X. Fu, J. L. Li, J. X. Zeng</i> | |
| An Improved PSO Algorithm and its Application on Fault Diagnosis | 353 |
| <i>X. L. Liu, L. H. Cao, S. T. Wang, J. N. Li, Y. Huang, Y. P. Li</i> | |
| Fuzzy Kernel Two-dimensional Principal Component Analysis for Face Recognition | 357 |
| <i>J. X. Zeng, P. Chen, J. Q. Tian, X. Fu</i> | |
| Research Progress of Quartz Tuning Fork Micromachined Gyroscope | 361 |
| <i>M. Y. Fan, L. F. Zhang</i> | |
| A Novel Method for Logistics Facility Location by Combining Finite State Automaton and Genetic Algorithm | 365 |
| <i>L. Wang, W. G. Li, L. Gao</i> | |
| The Use of Ontology in Case Based Reasoning for Reusable Test Case Generation | 369 |
| <i>R. Li, S. L. Ma</i> | |
| A Conceptual Framework for Project Scheduling with Multi-Skilled Resources | 375 |
| <i>F. Zammori, M. Bertolini</i> | |
| Development of Optimization Software to Solve Practical Packing and Cutting Problems | 379 |
| <i>V. A. Chekanin, A. V. Chekanin</i> | |
| Forecast of Student Achievement Variation Trend Based on C4.5 Decision Tree | 383 |
| <i>L. Li, S. M. Yao, Z. Ou, Q. J. Chen</i> | |
| Data Based College Students' Comprehensive Quality Evaluation System | 387 |
| <i>L. Li, Z. Ou, S. M. Yao, Q. J. Chen</i> | |
| Analysis of Beta Wave Epileptic EEG Signals Based on Symbolic Transfer Entropy | 391 |
| <i>X. Ye, T. Tian, T. P. Xu, J. Wang</i> | |
| Beta Wave of Sleep Electroencephalogram Analysis Based on Multiscale Sign Series Entropy | 395 |
| <i>J. H. Jiang, S. T. Wang, F. Z. Hou, J. Wang, J. Li</i> | |
| Adaptive Measured Model for Cell Adhesive Force Using Dielectrophoresis Force | 399 |
| <i>C. C. Lien, C. Ay, J. Y. Cheng, C. W. Young</i> | |
| Life Cycle Inventory Analysis of Basic Oils for Manufacturing of Automotive Lubricants | 403 |
| <i>G. J O Figueiredo, A. N Haddad, E. L Qualharini, E. G Vazquez</i> | |
| Mechanism of Carrier Transport at Low Temperatures in n-Type Beta-FeSi₂/p-Type Si Heterojunctions Fabricated by Facing-Target Direct-Current Sputtering | 407 |
| <i>N. Promros, M. Shaban, R. Baba, T. M. Mostafa, T. Yoshitake, M. Takahara</i> | |

APPLIED MATHEMATICS, MODELLING AND SIMULATION

| | |
|--|-----|
| Non-probabilistic Mechanism Reliability Analysis with Interval Dimension and Clearance Variables | 411 |
| <i>P. A. Huang, R. Huang, Z. P. Qiu, X. J. Wang</i> | |
| A Model for Fishery Forecast based on Cluster Analysis and Nonlinear Regression | 415 |
| <i>H. C. Yuan, M. X. Tan, Y. Chen</i> | |
| Research on the Macro-Model of the Microbolometer by Equivalent Circuit Method | 419 |
| <i>X. Hu, C. Chen, Y. D. Jiang, Y. Zhao</i> | |
| Growth Visualization of Chinese Fir based on 3-PG Model | 422 |
| <i>L. Y. Ma, H. Q. Zhang</i> | |
| An Identification Method for a Block Oriented Model | 425 |
| <i>X. P. Xu, F. Wang, F. Dai, F. C. Qian</i> | |
| Detection of Linear Frequency Modulated Flash Visual Evoked Potential by Fractional Fourier Transform | 429 |
| <i>S. L. Peng, Y. Xin, F. Y. Tian, S. K. Liu</i> | |
| A Symbolic Method for Distortion Analysis and Optimization | 433 |
| <i>J. Chen, G. Shi, A. Zhang</i> | |

| | |
|---|-----|
| Experimental Determination of the Dynamic Initiation Fracture Toughness of Composite Modified Double base Propellant | 437 |
| <i>W. Q. Wang, X. Chen, J. Zheng, J. S. Xu, C. X. Sun</i> | |
| A Kind of Dual Mixed Filter Algorithm based on Adaptive Filter and Morphological Filter | 441 |
| <i>Z. C. Li</i> | |
| A Novel Filled Function Approach for Non-Smooth Global Optimization Problem | 445 |
| <i>W. X. Wang, Y. L. Shang</i> | |
| A global Optimization Approach to Non-Convex Problems | 449 |
| <i>Z. F. Lu, Y. Lan</i> | |
| On the Robustness with Secure Video Watermarking Data via Compressed Sensing | 453 |
| <i>L. F. Cai, H. M. Zhao, Y. M. Fang, W. G. Wei</i> | |
| An Improved Hybrid Optimization Algorithm based on Iteration for Solving Aeroengine Model | 457 |
| <i>D. W. Yin, R. Y. Lv, B. Chang</i> | |
| An Effective Simulation of Heston Model: Combining Quadratic Exponential and Exact Simulation Schemes | 461 |
| <i>Y. F. Sun, G. Y. Zhang, S. Q. Li</i> | |
| A New High-Order Alternating Group Iterative Scheme | 465 |
| <i>Y. M. Shi</i> | |
| Oscillation of Nonlinear Impulsive Delay Hyperbolic Equation with Functional Arguments via Riccati Method | 469 |
| <i>M. Zou, Q. X. Ma, A. P. Liu</i> | |
| Analysis on Phase Space Reconstruction and Chaotic Characteristic of Element Concentration Series of Gold Deposit | 472 |
| <i>L. Wan, Y. Q. Zhu, X. C. Deng</i> | |
| Molecular Dynamics Study of Nanoimprint of Single Crystal Aluminium Thin Film | 476 |
| <i>Y. Yuan, T. Sun, J. J. Zhang, C. Liu</i> | |
| A Topic-based Dynamic Clustering Algorithm for Text Stream | 480 |
| <i>Y. Rao, X. J. Li</i> | |
| The Global Convergence of a New Spectral Conjugate Gradient Method | 484 |
| <i>W. Q. Zeng, H. L. Liu</i> | |
| Optimization of Dangerous Heavy Gas Leakage and Diffusion Model Algorithm | 488 |
| <i>X. M. Zheng, F. N. Yang</i> | |
| An Image Retrieval Method Based on PGH and Distance Histogram | 493 |
| <i>X. Zou, F. C. You</i> | |
| Comparison of Missing Data Imputation Methods for Leaching Process Modelling | 497 |
| <i>D. K. He, T. S. Chu, Y. B. Lang, G. X. Sun</i> | |
| The Research of Corner Extractors in Local Feature Points Matching Algorithm | 501 |
| <i>J. B. Zhi, F. C. You</i> | |
| A New Similarity Measure of Intuitionistic Fuzzy Sets and Application to Pattern Recognition | 505 |
| <i>B. Zhou, C. Wu</i> | |
| Improved PSO Approach for The Solution of Unit Commitment Problem | 510 |
| <i>Y. R. Guo, Y. H. Wu, J. R. Zhang, J. D. Ren</i> | |
| Uncertain Concepts in a Formal Context | 514 |
| <i>J. L. Yang, K. Y. Qin</i> | |
| A Novel Modelling Method for Fault Detection and Diagnosis in Large Water Chillers without Water Flow Measurements | 518 |
| <i>C. Y. Zheng, W. Chen</i> | |
| Wavelet-Based Multi-Sensor Optimal Information Fusion | 523 |
| <i>M. Cai, J. X. Li</i> | |
| The Applications of A Newton-Type Method for Constrained Nonsmooth Equations | 527 |
| <i>D. Y. Pang, S. Q. Du, J. J. Ju</i> | |
| Bubble Motion under Gravity through Lattice Boltzmann Method | 531 |
| <i>D. M. Nie, L. M. Qiu, X. B. Zhang</i> | |
| Optimal Spectrum Sensing Time and Transmit Power Based on Energy Efficiency in Cognitive Radio Networks | 534 |
| <i>J. X. Dai, Z. J. Ni, J. W. Liang, X. Wang, T. Yuan</i> | |
| Image Segmentation with Multilevel Threshold of Gray-Level & Gradient-Magnitude Entropy Based on Genetic Algorithm | 539 |
| <i>Z. Fu, J. F. He, R. Cui, Y. Xiang, S. L. Yi, S. J. Cao, Y. Y. Bao, K. K. Du, H. Zhang, J. X. Ren</i> | |
| Safety Analysis of Landing-Type Lifting Pole with Double-Level Arms under Wind Load Function | 543 |
| <i>J. Qin, H. S. Zhang, J. Su, J. M. Zhang, K. F. Huang, D. Ni</i> | |
| A Kind of Nonlinear Feedback Control and Its Application | 547 |
| <i>X. K. Zhang, G. Q. Zhang</i> | |
| KPI Prediction Algorithm Based on Phase Space Reconstruction and Support Vector Machine | 551 |
| <i>W. Yu, W. Li, H. B. Pan</i> | |
| Fuzzy Sensor Fusion and Curve Approximation for indoor Map Building | 554 |
| <i>J. G. Juang, Y. C. Yang</i> | |
| Packaging Solution Optimization of Automotive Parts and Its Ocean Shipping Test | 558 |
| <i>C. W. Chen, F. X. Yang, J. Xie, D. D. Yang</i> | |
| The Unbounded Kink Wave of Dullin-Gottwald-Holm Equation | 561 |
| <i>Y. Z. Zhang</i> | |
| Macro and Micro Models Of Milling of Carbon Fiber Reinforced Plastics Using Fem | 565 |
| <i>Y. L. He, Y. L. Liu, J. G. Gao</i> | |

| | |
|--|-----|
| A Novel Adaptive Fuzzy Autopilot Design for ASV Tracking Control | 569 |
| <i>M. H. Wang, Y. Q. Yu, W. Lin</i> | |
| The Novel Modelling Method of Time Series Based on the Internal Model Principle | 573 |
| <i>W. Wang</i> | |
| DSM-based Collaborative Flow Optimization Method for Equipment Requirement Demonstration | 577 |
| <i>Y. P. Fan, Q. S. Guo</i> | |
| The Application of the Auction Maximum Flow Algorithm in Traffic Flow Assignment | 581 |
| <i>M. Z. Tian, C. Xu</i> | |
| Firing Precision Evaluation For Unguided Artillery Projectile | 584 |
| <i>M. E. Wessam, Z. H. Chen</i> | |
| Regional Power Generation Prediction Model and Post-Evaluation Based On Coal Production and Economy Status | 588 |
| <i>N. Q. Xiao, Q. M. Yang</i> | |
| Research on Model-Driven Simulation Approach for Healthcare Information System | 592 |
| <i>L. L. Song, X. Q. Guo, C. Wang</i> | |
| Influencing Factors of Nb-Ti Treated ULC-BH Steels' Bake Hardening Property | 597 |
| <i>P. Tian, R. G. Bai, X. L. Zhang, H. Gao, Y. Cui, Z. Y. Zhong</i> | |
| Research on Effective Thermal Conductance of the Microbolometer | 601 |
| <i>L. Zhang, C. Chen, T. Wang, Y. Zhao</i> | |
| Developing Peace, Economy with Probe Networks across the Taiwan Strait from the Kinmen-Xiamen Cross-Border City | 605 |
| <i>L. Y. Hsu</i> | |

EDUCATIONAL TECHNOLOGY AND COMPUTER APPLICATION

| | |
|---|-----|
| Virtual Instrumentation Design on Earthquake Simulation System | 609 |
| <i>K. C. Yao, W. T. Huang, C. L. Lin, P. E. Wu, J. S. Chiang</i> | |
| A Spiral-ADDIE & R Industry-oriented Technology Course Development Model | 613 |
| <i>K. C. Yao, W. T. Huang, C. L. Lin</i> | |
| Evaluation of the Maximum Interconnected Capacity in a Primary Feeder after Distribution Generation Connection | 616 |
| <i>W. T. Huang, K. C. Yao, W. C. Yang, C. C. Wu, C. H. Lo, Y. H. Huang</i> | |
| Assessment Methods Revolution of Landscape Architecture Course Purposed on Cultivation of Comprehensive Qualities | 620 |
| <i>J. Yu</i> | |
| Establishment of Plant Landscape Evaluation System for Mausoleum Park | 622 |
| <i>J. Yu, H. W. Yan</i> | |
| Application of SIMULINK to Analyze the Unbalanced Operation Characteristics of a Three-Phase Transformer with Non-Identical Winding Impedances | 625 |
| <i>W. C. Yang, W. T. Huang, W. L. Kao</i> | |
| Research on Social Value of Managing University by Law | 628 |
| <i>J. N. Zheng</i> | |
| Novel Seamless Mobility Protocol for Next Generation Wireless Networks | 631 |
| <i>L. J. Zhang, W. K. Chen, S. Pierre</i> | |
| Author Index | |