

3rd International Conference on Mechatronics and Industrial Informatics (ICMII 2015)

Advances in Computer Science Research Volume 31

Zhuhai, China
30 – 31 October 2015

Part 1 of 2

Editor:

S. -B. Choi

ISBN: 978-1-5108-1739-5

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=icmii-15>

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact the publisher:

Atlantis Press
Amsterdam / Paris

Email: contact@atlantis-press.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

PART 1

ARTIFICIAL INTELLIGENCE AND INTELLIGENT INFORMATION PROCESSING

THE ATTITUDE TRACKING ROBUST CONTROLLER FOR SUPERCAVITATING VEHICLE BASED ON BACKSTEPPING METHOD.....	1
<i>Chengbin Lian, Xueyan Jing, Yongjun Hao, Xianping Tang</i>	
THE ANALYSIS OF THE DIFFERENT FILTERING ALGORITHM EFFECTS ON THE FLUORESCENCE SPECTRUM DATA PROCESSING	7
<i>Haiqiang Wu, Jie Sun, Longyang Zheng</i>	
OPTIMIZATION OF S-SHAPED BEND WAVEGUIDE USING RANDOM ORTHOGONAL AXIAL GRADIENT METHOD	13
<i>Yue-Yu Xiao, Hui-Xiang Yang, Shao-Fan Lu</i>	
STUDY ON THE RELATIONS AND DIFFERENCES OF DIFFERENTIAL MEAN VALUE THEOREMS	18
<i>Xin Wang, Shiqin Wang, Cheng Wang</i>	
APPLICATION OF FUZZY DECISION-MAKING METHODS IN THE NBA TEAM RANKING	22
<i>Yuanyuan Dong, Chengrong Xie, Cheng Wang</i>	
SIMULTANEOUS OPTIMIZATION OF PUMP CONFIGURATION AND PIPE NETWORK IN MULTI-SOURCE WATER INJECTION SYSTEM.....	26
<i>Jianjun Yang, Tangfu Wu, Zhihao Liu</i>	
AN OPTIMIZED FPN NETWORK ATTACK MODEL BASED ON IMPROVED ANT COLONY ALGORITHM	30
<i>Huilin Wu, Wenjuan Wu</i>	
NOISE REDUCTION OF COMMUNICATION SIGNAL BY UTILIZING THE ADAPTIVE FUZZY-FRACTAL FILTERING METHOD.....	40
<i>Shuang-Shuang Cheng, Bing Li, Jun Dong, Hui Han</i>	
CUBE ATTACK ON REDUCED-ROUND QUAVIUM.....	46
<i>Shiyong Zhang, Gongliang Chen, Jianhua Li</i>	
PARAMETER OPTIMIZATION OF LINEAR CONTROL SYSTEM BASED ON LYAPUNOV STABILITY THEORY	51
<i>Shengguo Zhang, Shuo Zhang, Guoheng Zhang, Wanchun Liu</i>	
GENETIC ALGORITHM WITH DIRECTION SELECTION FOR THE HYBRID FLOW SHOP SCHEDULING PROBLEM WITH MAKESPAN MINIMIZATION	56
<i>Zhixiong Su, Junmin Yi</i>	
A NOVEL METHOD FOR MULTIPLE AGENT FORMATION OBSTACLE AVOIDANCE PROBLEM IN THE COMPLEX DYNAMIC ENVIRONMENT	61
<i>Jiyang Dai, Junqiang Xiong, Linfei Yin, Cunsong Wang</i>	
FREQUENCY WEIGHTED H_{∞} MODEL REDUCTION BASED ON LMI.....	69
<i>Yuan Jiang, Juan Wu, Jiyang Dai</i>	
AN ITERATION METHOD FOR PREDICTING VEHICULAR TRAJECTORY BASED ON CAR-FOLLOWING MODELS.....	76
<i>Fei Teng, Jianqun Wang, Rui Chai</i>	
A MECHANICAL FAULT FEATURE EXTRACTION METHOD BASED ON VOLTERRA SERIES MODEL FOR EEMD DECOMPOSITION	82
<i>Kai Long, Guochu Chen, Haiqun Wang</i>	
DAMAGE IDENTIFICATION OF TRUSS STRUCTURE BASED ON IMPROVED BP NETWORK.....	88
<i>Jinsheng Fan, Ying Yuan, Limei Zhang</i>	
THE TRAFFIC IMAGE IS DEHAZED BASED ON THE MULTI-SCALE RETINEX ALGORITHM AND IMPLEMENT IT IN FPGA.....	92
<i>Cui Zhe, Chao Li, Jiaqi Meng</i>	
A NEW DISTANCE METRIC LEARNING ALGORITHM FOR HAND POSTURE RECOGNITION.....	98
<i>Qiongli Liu, Dajun Xu, Zhiguo Li, Peng Zhou, Jingjing Zhou, Yongxia Xu</i>	
STUDY ON CHARACTERIZATION METHOD FOR MONITORING DATA ANALYSIS OF PLANE DISPLACEMENT.....	103
<i>Shiyu Wei, Jun Jiang, Chuan Li</i>	

STRUCTURAL PARAMETER IDENTIFICATION IN TIME DOMAIN USING EXTENDED KALMAN FILTER METHOD WITH WEIGHTED GLOBAL ITERATION	110
<i>Xiang-Jian Wang, Jie Cui</i>	
THE ALGORITHM IMPROVEMENT OF SEALING SYSTEM ENERGY CONSUMPTION IN SIDE DOOR CLOSING PROCESS	120
<i>Guohua Qiu, Aiquan Yu, Shanshan Wang, Gang Long</i>	
OPTIMAL PARAMETER MATCHING FOR WORKING CONDITION OF COMBINE HARVESTER	132
<i>Min Liao, Qiang Wang, Huapei Zhang</i>	
WATERSHED ALGORITHM FOR PCB AUTOMATIC OPTICAL INSPECTION SYSTEMS.....	137
<i>Ping Feng, Qiyuan Gong, Tao Cheng</i>	
DIFFERENTIATION OF CIRRHOSIS FROM NORMAL LIVER BASED ON TEXTURAL FEATURES VIA T1WI COMPUTER-AIDED DIAGNOSIS WITH A GENETIC ALGORITHM.....	146
<i>Dong-Mei Guo, Hui Liu, Tian-Shuang Qiu, Xiang-Bo Lin</i>	
RESEARCH ON THE GENERATION METHOD OF TEST CASES IN FUZZING	150
<i>Hongliu Cai, Xi Yu, Liuyunqin Deng</i>	
STUDY AND USE OF DATA SYNCHRONIZATION IN THE GENERAL EQUIPMENT SUPPORT INFORMATION SYSTEM BASED ON SOA	157
<i>Dong Li, Xinyi Xu, Huqiang Wang</i>	
MULTI-CHANNEL DISTRIBUTION MECHANISM BASED ON BP NEURAL NETWORK.....	163
<i>Xue Ming Zhai, Jia Wang, Jin Ze Li</i>	
THE DISTRIBUTED PERMUTATION FLOWSHOP SCHEDULING PROBLEM: A GENETIC ALGORITHM APPROACH	167
<i>Yan Li, Zhigang Chen</i>	
A BIT-LOCKING BINARY TREE ALGORITHM BASED ON ODD-EVEN ZONE.....	171
<i>Hongbin Tang, Shangbo Zhou, Karim Awudu</i>	
COLLABORATIVE FILTERING ALGORITHM BASED ON THE SIMILARITY OF USER RATINGS AND ITEM ATTRIBUTES	178
<i>Aili Liu, Baoan Li</i>	
ON LOCAL FAIRING ALGORITHM FOR CUBIC B-SPLINE WITH THE SECOND DISCRETE CURVATURE.....	183
<i>Cheng Cheng, Desheng Yu</i>	
A NOVEL PROPORTIONAL WINDOW BASED DYAMIC BANDWIDTH ALLOCATION ALGORITHM IN OPTICAL NETWORK.....	192
<i>Jinsong Guo, Zhaoxia Wang</i>	
SHOCKABLE RHYTHM DETECTION BASED ON SAMPLE ENTROPY	199
<i>Xiaoli Yang, Zhenwei Li, Zhigang Hu</i>	
DETECTION OF TIME SERIES CHANGE POINT OF STOCK YIELD BASED ON BAYESIAN METHOD.....	203
<i>Yi Rong Ying, Feng Jie Ying, Su Zhen Li</i>	
RESEARCH ON THE TYPICAL PARALLEL PROCESSING ALGORITHM OF MASSIVE REMOTE SENSING DATA.....	207
<i>Jinlin Yang, Dandan Fan, Xiaoshen Xu</i>	
IRREGULAR OBJECT SIMPLIFY METHOD BASED ON MULTI-GRANULARITY	215
<i>Xiaoping Liao, Haihua Xiao, Junyan Ma</i>	
AN IMPROVED PAGERANK ALGORITHM FOR SOCIAL NETWORK USER'S INFLUENCE RESEARCH.....	222
<i>Peng Wang, Xue Bo, Huamin Yang, Shuangzi Sun, Songjiang Li</i>	
A FAST NAME LOOKUP METHOD IN NDN BASED ON HASH CODING	228
<i>Shuaibo Feng, Mingchuan Zhang, Ruijuan Zheng, Qingtao Wu</i>	
A REPUTATION REVISION METHOD BASED ON THE CREDIBILITY FOR CLOUD SERVICES	234
<i>Xiaogang Cai, Mingchuan Zhang, Jiankun Hu, Qingtao Wu</i>	
DYNAMIC ESTIMATES OF SECTOR CAPACITY USING THE COMBINED SOM AND K-MEANS METHOD.....	240
<i>Shuxuan Xiong, Yifei Zhao</i>	
AN IMPROVED SINGULAR VALUE DECOMPOSITION RECOMMENDER ALGORITHM BASED ON USER TRUST RELATIONSHIP.....	248
<i>Junchi Pan, Xingming Zhang, Xiaofeng Qi</i>	
WJMI: A NEW FEATURE SELECTION ALGORITHM BASED ON WEIGHTED JOINT MUTUAL INFORMATION	254
<i>Xiuli Qi, Chengxiang Yin, Kai Cheng, Xianglin Liao, Xingdang Kang</i>	

AN AUTOMATIC SELECTION METHOD FOR THE VISUAL SCENE LOD MODEL AND VIEWPOINT BASED ON GENETIC ALGORITHM AND IMAGE ENTROPY	261
<i>Xiaodong Wang, Hao Gu, Fengju Kang</i>	
FLOCK BASED REAL TIME COLLISION AVOIDANCE CROWD SIMULATION	267
<i>Ziqi Wu, Xubo Yang</i>	
CONDITIONAL DIAGNOSABILITY ALGORITHM FOR THE EXCHANGED HYPERCUBE UNDER THE PMC MODEL.....	274
<i>Weixia Gui, Jiarong Liang, Cui Liu</i>	
RESEARCH ON APPAREL SALES FORECAST BASED ON ID3 DECISION TREE ALGORITHM	279
<i>Xurigan Saiyin, Chenna Hu, Dou Tan, Yi Liu</i>	
A DECISION SUPPORT SYSTEM OF QUALITY FORECAST EVALUATION FOR COMPLEX PRODUCTS BASED ON DATA WAREHOUSE.....	285
<i>Jihong Pang</i>	
A NOVEL PIECEWISE LINEAR RECURSIVE CONVOLUTION APPROACH FOR LORENTZ MEDIA USING THE ADE- FDTD METHOD	290
<i>Bingkang Chen</i>	
OPTIMAL COMBINATION OF MULTI-RESOLUTION MODELS IN VISUALIZATION TECHNIQUES.....	295
<i>Xiaolong Yang, Hao Gu, Fengju Kang</i>	
A SPECTRUM MATCHING ALGORITHM BASED ON DYNAMIC SPECTRAL DISTANCE.....	301
<i>Qi Jia, Shouhong Cao</i>	
PROBABILITY DISTRIBUTION AND FUZZY SYSTEM BASED ON TRIPLE I ALGORITHM	307
<i>Hongwei Fu, Liang Yang, Sichong Qian</i>	
TIME CONSTANT ESTIMATION OF ASYMPTOTICALLY STABLE LINEAR SYSTEM BY LYAPUNOV FUNCTION	318
<i>Shengguo Zhang, Shuo Zhang, Wanchun Liu, Jingtao Huang, Guoheng Zhang</i>	
MODIFIED COUPLED MAP CAR-FOLLOWING MODEL BY CONSIDERING THE EFFECT OF MULTIPLE PRECEDING VEHICLES.....	323
<i>Kun Zhang, Tong Zhou</i>	
MULTI-GPU BASED CLUSTER SYSTEM FOR CT ITERATIVE RECONSTRUCTION ALGORITHM	328
<i>Wan-Li Lu, Bin Yan, Jian-Lin Chen, Ai-Long Cai, Lei Li</i>	
AN IMPROVED PRIVACY APPLY ALGORITHM IN PINQ	334
<i>Qianying Li</i>	
IDENTITY-BASED RING SIGNATURE SCHEME BASED ON CUBIC RESIDUES	339
<i>Xuedong Dong, Xinxin Liu</i>	
UNITED POWER FLOW ALGORITHM FOR TRANSMISSION-DISTRIBUTION JOINT SYSTEM WITH DISTRIBUTED GENERATIONS	343
<i>Yirong Su, Xingyue Jiang, Yangyang Xi, Shuanghu Wang</i>	
RESEARCH ON EVALUATION MODEL OF AEW OPERATIONAL EFFECTIVENESS BASED ON TOPSIS METHOD.....	348
<i>Jian Du, Yu-Cai Dong, Jing Xia</i>	
DISTRIBUTED DATA STREAMS PROCESSING BASED ON FLUME/KAFKA/SPARK.....	353
<i>Jun Wang, Wenhao Wang, Renfei Chen</i>	
THE PROOF OF STRONG MARKOV PROPERTY BASED ON ONE DEFINITION (II)	358
<i>Rong Tang, Ke Liu, Yixuan Dong</i>	
SWING NODE ON STATE ESTIMATION RESULTS WITH BAD DATA AND ITS ERROR ANALYSIS.....	362
<i>Jian Guo, Yin Zhang, Yihang Chen, Ruzhi Xu</i>	
APPLICATION OF ARCHIE FORMULA IN AREAS OF DATA DEFICIENCIES.....	368
<i>Bowen Qian, Rui Deng, Bifang Lu, Weinan Liu</i>	
APPLICATION OF EMD IN SIGNAL PROCESSING OF TRACK STATE DETECTION	373
<i>Wenfa Zhu, Huizhen Ma</i>	
RESEARCH ON MEDICAL IMAGE PROCESSING BASED ON ITK ALGORITHM.....	379
<i>Jinguo Wang, Na Wang, Rui Wang</i>	
A DETECTION SCHEME FOR GROUND WIRES DETECTING BASED ON CURRENT SHUNT PRINCIPLE IN DISTRIBUTION LINES.....	383
<i>Lefeng Cheng, Tao Yu, Fei Guan</i>	
STUDY ON AUTOMATIC DETECTION METHOD OF AUTOMOBILE SAFETY BELT BASED ON THE IMPROVEMENT OF ADABOOST ALGORITHM.....	392
<i>Jing Xu, Kai Song</i>	

COMPUTER SCIENCE AND TECHNOLOGY

ECHO MODELING AND SIMULATION ANALYSIS OF MILLIMETER WAVE PROXIMITY FUZE	397
<i>Jie Zhou, Quanli Ning, Chunsheng Hu</i>	
DESIGN OF SPECTROMETER BASED ON THE INTERNET OF THINGS	402
<i>Longyang Zheng, Jie Sun, Haiqiang Wu</i>	
THE APPLICATION OF BP NEURAL NETWORK IN THE SAFETY WARNING OF GAS STATIONS	409
<i>Qiao Li, Yu Jin</i>	
NAVIGATION MODE STUDY OF MOBILE APPLICATION BASED ON EYE TRACKING TECHNOLOGY	416
<i>Jiuqiang Fu</i>	
IMPROVEMENTS ON PROXYING AND CACHE SCHEME OF COAP PROTOCOL FOR IPV6-BASED WIRELESS SENSOR NETWORKS	420
<i>Ping Wang, Xin Li, Heng Wang, Na Bao</i>	
RESEARCH ON MUTATION PARAMETERS OF CLOUD EVOLUTIONARY STRATEGY	425
<i>Ziqiang Luo, Peng Cao, Bin Wen, Yu Zhang</i>	
RESEARCH ON A MULTI-MISSILE DISTRIBUTED COOPERATIVE GUIDANCE METHOD BASED ON DYNAMIC NETWORK	429
<i>Jiyang Dai, Wenhua Li, Baojian Yang, Junqiang Xiong</i>	
RESEARCH ON SIMILARITY IN SOFTWARE COST ESTIMATION	435
<i>Xueli Ren, Yubiao Dai</i>	
RESEARCH ON PROJECT MANAGEMENT SYSTEM OF LARGE COMPLEX CONSTRUCTION PROJECTS BASED ON CLOUDDB	440
<i>Jian-Jun Han, Wen-Xia Li, Cheng Yu</i>	
THE EMERGENCY RUSH REPAIR HANDLING DESIGN OF A CERTAIN TYPE SPECIAL OPERATION COMPUTER	446
<i>Junxian Liu, Wei Zhang, Dawei Wang, Xiaofang Lou, Hang Xiao</i>	
ANALYSIS OF SPACE-GROUND INTEGRATED INFORMATION NETWORK ARCHITECTURE AND PROTOCOL	450
<i>Yong Zhou, Chundong She, Ligang Fei, Kaiming Liu</i>	
LIBRARY AND UNIVERSITY DATA ANALYSIS USING DATA DETECTION	456
<i>Yuqing Shi, Yuelong Zhu</i>	
STUDY ON GROUP DECISION SUPPORT SYSTEM FOR BANK LOAN PROJECT OF ENGINEERING MACHINERY ENTERPRISE BASED ON CLOUD MODEL	460
<i>Xuanhua Xu, Zhijiao Du, Ying Chen</i>	
PRFC A NEW PROGRAMMABLE ROUTER ARCHITECTURE PROVIDING FLEXIBLE CUSTOMIZATION FOR SERVICE	471
<i>Yan Zhang, Jian-Yang Huang</i>	
SERVICE ROUTING ANALYSIS IN OPTICAL NETWORK WITH ALGEBRAIC DECISION DIAGRAM	478
<i>Zhimin Xiang, Yongwei Chen, Jin Liu, Xiaoxiao Wo</i>	
IMPROVEMENT FOR IEEE 802.11 PCF ACCESS MECHANISM	484
<i>Ying Huang, Lin Zhou, Xin Li</i>	
RESEARCH ON NETWORK INTRUSION DETECTION TECHNOLOGY BASED ON DATA MINING TECHNOLOGY	490
<i>Lijun Zhou, Hong Lv, Yuan Zhao</i>	
LOCAL PROGRESSIVE ITERATIVE APPROXIMATION FOR TRIANGULAR BÉZIER AND RATIONAL TRIANGULAR BÉZIER SURFACES	497
<i>Liping Yan, Desheng Yu</i>	
RESOURCE AND ROLE BASED ACCESS CONTROL MODEL	505
<i>Xingdong Li, Zhengping Jin</i>	
THE RESEARCH OF FRACTIONAL ORDER CONTROL SYSTEM BASED ON SURFACE EMG SIGNAL	512
<i>Changsong Li, Yiqi Zhou, Yanzhao Chen</i>	
COMBINATORIAL OPTIMIZATION OF RESOLUTION LEVEL FOR 3D SCENE BASED ON REGIONAL WEIGHTED INFORMATION ENTROPY	516
<i>Li Che, Fengju Kang</i>	
RESEARCH ON THE APPLICATION AND DEVELOPMENT OF PRODUCTION TECHNOLOGY OF COMPUTER ANIMATION IN THE NEW MEDIA ENVIRONMENT	524
<i>Jinxi Zhang, Jianjun Huang</i>	

RESEARCH ON QUALITY MEASUREMENT AND EVALUATION METHOD OF THE LOCALIZATION EMBEDDED REAL-TIME OPERATING SYSTEM	530
<i>Zhijie Gao, Youchun Zhang, Chen Liu, Wen Jiao</i>	

PART 2

BI-DIRECTIONAL MESSAGE MAPPING FOR DER AND DMS INTEROPERABILITY	534
<i>Jian Su, Haitao Liu, Xueyuan Su</i>	

ELECTRONIC, ELECTRICAL AND INFORMATION TECHNOLOGY, TESTING AND MONITORING

DEVELOPMENT OF AN UNDERWATER ROBOT FOR SEDIMENT SOIL SAMPLING.....	538
<i>Peng Gao, Bin Zheng, Jianhong Liang, Cangsi Ren</i>	
DESIGN OF FAULT DIAGNOSIS EXPERT SYSTEM FOR ELECTRONIC CONTROL SYSTEM OF ADAPTIVE OPTICS BASED ON FAULT TREE	544
<i>Guoqing Gao, Luchun Zhou</i>	
A NEW METHOD FOR MULTI-CHANNEL AUDIO TRANSMISSION BASED ON AVB STANDARD	549
<i>Liming Shao, Chao Chen, Qi Wang</i>	
DESIGN OF HIGH PERFORMANCE DISK STORAGE PROTOCOL	555
<i>Jinxing Shen</i>	
DESIGN OF TRACKING CONTROL SYSTEM BY CLOSED-LOOP POLE PLACEMENT	561
<i>Shengguo Zhang, Shuo Zhang, Guoheng Zhang</i>	
DESIGN AND IMPLEMENTATION OF THE ADAPTIVE CCCII-OTA FILTER.....	567
<i>Sheng-Qian Ma, Yan-Ping Ji, Zhi-Feng Ma, Li-Rong Zheng</i>	
SINGULARITY LOCI ANALYSIS OF THE POSITION AND POSE ADJUSTMENT MECHANISM USED FOR IN-PIPE ROBOT	572
<i>Han Ni, Yulian Chang, Sheng Gao</i>	
APPLICATION OF GAME THEORY IN COOPERATIVE COMMUNICATION IN WIRELESS SENSOR NETWORKS.....	577
<i>Jing Zhao, Hongfang Lv, Shuaijun Qu</i>	
DESIGN OF TEST PLATFORM FOR ROBOT DRILLING AND CUTTING FORCE SIMULATION	583
<i>Ying Xu, Renbin He, Jianqiang Chen, Benshuang Zhang, Zhaolei Li, Yanyu Deng</i>	
THE DESIGN OF INTELLIGENT PASSWORD LOCK BASED ON SCM	588
<i>Bang-Qian Ao, Fei-Qiao Xiong</i>	
COULOMB INTERACTIONS IN A FOCUSED ION BEAM SYSTEM WITH A DYNAMIC CORRECTED DEFLECTION FIELD	592
<i>Wenping Li, Qian Li, Jumbiao Liu</i>	
AN INCREMENTAL LEARNING METHOD FOR L1- REGULARIZED KERNEL MACHINE IN WSN.....	597
<i>Xin-Rong Ji, Cui-Qin Hou, Yi-Bin Hou, Da Li</i>	
DIGITAL AUDIO FILTER DESIGN BASED ON YSS920B MANG ZHOU.....	604
<i>Mang Zhou</i>	
INTELLIGENT TERMINAL AUDIO ENCODING RESEARCH.....	610
<i>Taoyang Luo, Zou Long, Zhenrong Zhang</i>	
DESIGN OF SOUND POSITIONING SYSTEM IN THE COMPLEX ENVIRONMENT OF NOISE BASED ON STM32	614
<i>Zou Long, Taoyang Luo, Zhenrong Zhang</i>	
THE PERFORMANCE COMPARISON OF THE CHANNEL ESTIMATION METHODS BASE ON PILOTS SYMBOL INTERPOLATION IN HF OFDM SYSTEM.....	620
<i>Xinyu Tuo, Wei Cheng, Ruijuan Yang, Hongbin Cheng</i>	
ADAPTIVE SURFACE SHIP-WAKE DETECTION BASED ON IMPROVED ONE-CLASS SUPPORT VECTOR MACHINE	628
<i>Cheng Wang, Tingfei Yang, Qiang Meng</i>	
CORRECTION OF PRINCIPLE ERROR OF PHOTOELECTRIC HELMET.....	634
<i>Jingfeng He, Ming Ji</i>	

THE APPLICATION OF INFORMATION EXCHANGE BUS IN ELECTRIC-POWER INFORMATION SYSTEM	638
<i>Wenxin Wang, Weiwei Zhang, Shuang Xu, Xudong Zhang, Wei Zhou</i>	
AUTOMATIC SETTLEMENT MONITORING BASED ON HIGH-PRECISION LEVEL	644
<i>Xingang Mou, Jianxin Zhao, Xiao Zhou</i>	
RESEARCH ON MODEL COMPOSITION FOR UNDERWATER WARFARE SIMULATION IN ENGAGEMENT-LEVEL	649
<i>Jianchun Zhang, Fengju Kang</i>	
TIBETAN SYNTACTIC PARSING BASED ON SYLLABLES	657
<i>Fucheng Wan, Xiangzhen He</i>	
EFFECT OF SENSITIVE WORKING GAS ON THE SENSITIVITY OF THE FLUIDIC GYROSCOPE	661
<i>Linhua Piao, Lei Duan, Haoliang Dong</i>	
SENSITIVITY OPTIMIZATION OF AIRFLOW LEVEL POSTURE SENSOR	666
<i>Lei Duan, Linhua Piao, Haoliang Dong</i>	
SIMULATION OPTIMIZATION OF AIRFLOW LEVEL POSTURE SENSOR	670
<i>Lei Duan, Linhua Piao, Haoliang Dong</i>	
RESEARCH OF PIEZO-RESISTIVE AND PIEZOELECTRIC SENSOR	674
<i>Sanming Feng, Wenjie Tian, Bo Ma</i>	
IMPROVED NETWORK EQUIPMENT REAL-TIME MONITORING SYSTEM BASED ON GANGLIA	680
<i>Yuanwen Wang</i>	
FEATURE COLLATION BASED ON THE GENERALIZED HOUGH TRANSFORM	685
<i>Lijuan Song</i>	
CHECKPOINT AND RESTORE OF MICRO-SERVICE IN DOCKER CONTAINERS	690
<i>Yang Chen</i>	
A DESIGN OF HD VIDEO COMPRESSION AND PROCESSING SYSTEM BASED ON TMS320DM6467 PROCESSOR	694
<i>Xuwen Li, Guoqi Hu, Qiang Wu</i>	
RESEARCH OF A 5GHZ MINING ACCESS POINT	699
<i>Xiao Lv, Da Zhang, Feng Jin, Xu Liu, Xuesong Chen</i>	
A TEST SYSTEM FOR HIDDEN FAILURE BASED ON HYBRID STATE ESTIMATION	704
<i>Zhongqing Li, Yuan Tian, Chen Liang, Yan Hu, Xiang Gao</i>	
A NOVEL TIME EXTENSION METHOD OF THE PULSE LASER RANGING SYSTEM	718
<i>Su Fang, Yihui Zheng, Lixue Li, Xin Wang, Xiangchen Meng, Jianming Zhao</i>	
DESIGN OF THE BRAKE COOLING SYSTEM BASED ON GPS EARLY WARNING AND THE LIQUID LEVEL DETECTION	722
<i>Zhonggang Xiong, Juan He, Delian Luo, Tingqiang Wu</i>	
NOISY VOLTAGE SAG SIGNAL ANALYSIS BASED ON WAVELET TRANSFORMATION	727
<i>Min Cao, Shilin Li, Qingchan Liu</i>	

INFORMATION TECHNOLOGY APPLICATION IN ENTERPRISES

REALIZATION OF EXPERIMENT PLATFORM OF THE COURSE “SIGNALS AND SYSTEMS” BASED ON MATLAB GUI	732
<i>Sujie Chen, Zhengfei Qian, Xiong Zhou, Xiaojing Shi</i>	
FEM DESIGN OF VIRTUAL EXPERIMENTS FOR MECHANICAL ENGINEERING EDUCATION	736
<i>Jiangang Yi, Ping Xu</i>	
KEY TECHNIQUES RESEARCH IN MOOCS	741
<i>Weijun Dong, Guohua Geng</i>	
APPLICATION OF NETWORK TECHNOLOGY IN BUILDING ENGINEERING MANAGEMENT	745
<i>Zhineng Tong, Ying Huang</i>	
THE DESIGN AND IMPLEMENTATION OF A CERTAIN TYPE OF JOB CONTROL COMPUTER TRAINING SIMULATOR	750
<i>Quanzhi Zhou, Chuanfei Qiu, Huihua Cheng, Huiyu Nie, Weiqing Tian, Jin Li</i>	
APPLICATION OF ARTIFICIAL NEURAL NETWORK (ANN) IN PREDICTION OF CRYSTALLIZATION INDUCTION PERIOD	754
<i>Min Yuan, Yujie Gao</i>	

DESIGN AND PRACTICE OF UNIVERSAL MANAGEMENT SYSTEM IN RURAL DIGITAL COMMUNITIES	760
<i>Mei Li, Ning Qi</i>	
DETECTING SYSTEM DESIGNED FOR EXPRESS INDUSTRY	764
<i>Haoda Gong, Xingzhe Jiang, Xiaoyu Ye</i>	
THE KEY TECHNOLOGIES RESEARCH OF GUIZHOU MINORITY CULTURAL HERITAGE DIGITAL PROTECTION	770
<i>Guixian Zhou, Hongfeng Xu</i>	
RESEARCH FOR APPLICATION OF MOBILE DIGITAL LIBRARY	774
<i>Xin Zhang, Dingli Song, Fuxing Yu, Shu Yan</i>	
HARMONIZATION OF OFFICE DOCUMENT FORMAT AND WEB PAGE FORMAT DRIVEN BY SEPARATING PRESENTATION FROM CONTENT	779
<i>Chun-Yan Fang, Ning Li, Xia Hou</i>	
A CHINESE-ENGLISH INTERPRETATION TESTING AUTOSCORING SYSTEM BASED ON SEMANTIC ANALYSIS	796
<i>Xinguang Li, Jiyou Xu, Shengbin Zhang, Zhiming He</i>	
DESIGN OF ONLINE EXAMINATION SYSTEM BASED ON JAVA EE	803
<i>Xiaoyun Liu, Jian Shen</i>	
A MODEL STUDY OF MOBILE APPLICATIONS STICKINESS	807
<i>Jiuqiang Fu</i>	
APPLICATION OF EXCEL IN THE OPERATION MANAGEMENT OF THE GROUP COMPANY	811
<i>Hongxiao Zhou, Weifu Tian</i>	
THE DEVELOPMENT AND RESEARCH OF 3D ANTHROPOMETRIC DATABASE MANAGEMENT SYSTEM	816
<i>Xia Lei, Zhen Wan</i>	
EXTRACTING HIGH-LEVEL MULTIMODAL FEATURES	821
<i>Xin Li, Ruijiang Liu</i>	
LIVE MIGRATION OF DOCKER CONTAINERS THROUGH LOGGING AND REPLAY	827
<i>Chenyong Yu, Fei Huan</i>	
APPLICATION OF INFORMATION TECHNOLOGY IN OPERATION AND MAINTENANCE OF OVERHEAD TRANSMISSION LINES	831
<i>Xiaoguang Li, Xiaofu Wang, Naifeng Liang, Yuanjing Deng</i>	
COLLEGE SPORTS VENUES MANAGEMENT SYSTEM PLATFORM DESIGN AND ANALYSIS	836
<i>Xingquan Jiang, Gao Feng</i>	
TIBETAN INFORMATION EXTRACTION TECHNOLOGY BASED ON FUNCTIONAL SEMANTIC INFORMATION	840
<i>Fucheng Wan, Xiangzhen He</i>	
RESEARCH ON DOCUMENT CONTENT CLASSIFICATION ON MATHEMATICAL REGRESSION MODEL	845
<i>Hua Long, Baoan Li</i>	
COMPLEX CHARACTER ANALYSIS OF SHENZHEN 100 INDEX STOCK MARKET NETWORK	849
<i>Yang Tu, Zhihui Yang</i>	
CORRELATION ANALYSIS OF TOPOLOGY OF STOCK VOLUME OF CHINESE SHANGHAI AND SHENZHEN 300 INDEX	855
<i>Yiqi Wang, Zhihui Yang</i>	
DETERMINE THE INFLUENCE OF ACADEMIC RESEARCH BASE ON SOCIAL NETWORK ANALYSIS	861
<i>Zhihui Yang, Cunbin Zhu</i>	
RESEARCH ON THE DESKTOP SHARING MECHANISM OF ONLINE TEACHING SYSTEM	866
<i>Xiaoyun Liu, Jian Shen</i>	
TIE DYEING PATTEN SIMULATION DESIGN BASED ON PROCESSING LANGUAGE	870
<i>Chendi Zhu, Jianxia Su</i>	
RESEARCH ON LOAD BALANCING STRATEGY OF STANDALONE MULTI-CORE CLUSTER BASED ON NODE.JS	875
<i>Bo Wu, Zhengping Jin</i>	
RESEARCH AND DEVELOPMENT OF KNOWLEDGE-BASED BLANKING DIES EXPERT SYSTEM 1	881
<i>Baofu Sun, Zhiwei Zhang</i>	
TECHNICAL ANALYSIS AND DESIGN OF NEW MOBILE OA SYSTEM	886
<i>Lanyu Zhang</i>	

APPLICATION FUNCTION AND DAILY MANAGEMENT DECISION OF HOTEL DATA CENTER	891
<i>Hui Liang</i>	
DISCUSSION ON SURGICAL MULTIMEDIA NETWORK TEACHING	895
<i>Shu Jing, Weihai Jiang</i>	
APPLICATION OF INFORMATION ENTROPY IN FAULT DIAGNOSIS OF HIGH SPEED TRAIN WHEEL SET	899
<i>Mingming Liu, Yindong Ji, Longlong Chen, Wei Dong, Xinya Sun</i>	
DISCUSSION ON THE APPLICATION OF MULTIMEDIA TEACHING IN CLINICAL PHARMACOLOGY	904
<i>He Li, Chunmei Wang, Jinghui Sun, Hongxia Sun, Chengyi Zhang</i>	

INTERNET, E-COMMERCE AND MULTIMEDIA TECHNOLOGIES

SUBPIXEL EDGE LOCALIZATION BASED ON THE BRESENHAM ALGORITHM	908
<i>Weifang Sun, Binqiang Chen, Qi Luo</i>	
A FEASIBLE, EFFECTIVE IMAGE TRANSMITTING FRAMEWORK IN WMSNS	913
<i>Feng Tian, Kun Song, Enyan Sun</i>	
ACTIVE CONTOURS ALGORITHM WITH AN ADAPTIVE GAUSSIAN DISTRIBUTION FITTING ENERGIES AND ITS APPLICATION TO INDUSTRIAL CT IMAGE SEGMENTATION	919
<i>Xiao Luo, Yongning Zou</i>	
RESEARCH ON THE EVALUATION OF CUSTOMER SATISFACTION IN B2C E-COMMERCE ENTERPRISES	926
<i>Huali Cai, Yawei Jiang, Heliang Song</i>	
SPATIAL INFORMATION GRID-BASED DIGITAL MAP FRAMING METHOD	930
<i>Guiling Li, Yongchong Yang</i>	
COMPARISON OF SEVERAL FEATURES OF BUILDING DETECTION IN REMOTE SENSING IMAGE	935
<i>Juncheng Wu, Jingwen Xu, Junfang Zhao, Ning Li, Surong Xiang</i>	
THE AUTOMATIC CLASSIFICATION RESEARCH TO REGIONAL MEDICAL IMAGING DISEASE BASED ON SUPPORT VECTOR MACHINE	939
<i>Bishi He, Hangjian Ni, Zhe Xu</i>	
A COMPREHENSIVE EVALUATION MODEL FOR REMOTE SENSING FUSED IMAGE	947
<i>Jiang-Long Wu, Xiao-Lin Tian</i>	
CORNER DETECTION PROBLEM AND EFFICIENT METHODS	951
<i>Lijuan Song</i>	
EFFICIENT VISUAL SALIENCY DETECTION IN VIDEO BASED ON TRAJECTORY CLUSTERING	958
<i>Man Hua, Ruichun Lin</i>	
A NEW DESIGN OF THE VEHICLE DETECTION SYSTEM FOR MEASURING OUTLINE SIZE	963
<i>Xiaobo Zhou, Yong Zhu, Jianhui Zhu</i>	
ANALYSIS AND REALIZATION OF ELIMINATE THE “INFORMATION ISOLATED ISLAND” IN ENTERPRISE E-COMMERCE	971
<i>Shijin Liu, Jin Li</i>	
A TRUST-BASED FRIEND RECOMMENDATION STRATEGY IN MICROBLOG	977
<i>Shan Cui, Ruifang Liu</i>	
RESEARCH AND IMPLEMENTATION OF MEDICAL IMAGE PROCESSING TECHNOLOGY	983
<i>Jinguo Wang, Na Wang, Rui Wang</i>	
RESEARCH ON MEDICAL IMAGE SEGMENTATION TECHNOLOGY	987
<i>Jinguo Wang, Na Wang, Rui Wang</i>	
RESEARCH ON MEDICAL IMAGE PROCESSING	991
<i>Jinguo Wang, Na Wang, Rui Wang</i>	
IMAGING ANALYSIS OF SPACE TARGET IN BISTATIC ISAR	995
<i>Shaochuang Ma, Qiang He, Baofeng Guo</i>	
AN MULTI-MINI-PARTITION INTRA BLOCK COPYING FOR SCREEN CONTENT CODING	1003
<i>Liping Zhao, Tao Lin</i>	
THE JPEG IMAGE QUERY FEEDBACK RESEARCH BASED ON THE COMPRESSED DOMAIN	1008
<i>Jianfeng Wang, Zikun Liu, Mingke Li, Wenming Wu, Xiaorong Zhao</i>	
THE FUNCTIONAL TEST OF UPLOADING DATA IN THE IMAGE CAPTURE SYSTEM	1013
<i>Re Liu</i>	

NOVEL FUSION RULES FOR TRANSFORM-DOMAIN IMAGE FUSION METHODS	1018
<i>Chunyu Wei, Bingyin Zhou, Wei Guo</i>	
FIBER-BASED ULTRAVIOLET FREQUENCY SWEEP LASER	1023
<i>Xiong Wan, Pengxi Liu</i>	
A NOVEL IMAGE RESTORATION TECHNIQUE BASED ON ANISOTROPIC DIFFUSION MODEL	1027
<i>Nan Zhao, Xinqi Zheng, Jianjun Chen</i>	
OPTIMIZED METHOD OF MULTI-FEATURE FOR CONTENT-BASED IMAGE RETRIEVAL	1031
<i>Zhengyan Dai, Sujuan Qin</i>	
SALIENCY MAP FOR VISUAL ATTENTION REGION PREDICTION: A COMPARISON OF TWO METHODS	1037
<i>Mao Wang</i>	
QUALITY ASSESSMENT FOR AEW BASED ON PROJECTION PURSUIT METHOD	1046
<i>Yu-Cai Dong, Jian Du, Hui Zheng Li</i>	
RESEARCH ON THE TOURISM SCENIC SPOT E-BUSINESS INTEGRATION FRAMEWORK	1051
<i>Cao Yang, Qiao Lin</i>	
RESEARCH ON MEDICAL IMAGE DENOISING BASED ON IMPROVED MEDIAN FILTERING ALGORITHM	1056
<i>Jinguo Wang, Na Wang, Rui Wang</i>	
RESEARCH ON MEDICAL IMAGE DENOISING	1060
<i>Jinguo Wang, Na Wang, Rui Wang</i>	
Author Index	