

# **International Conference on Modelling, Simulation and Optimization Technologies and Applications (MSOTA 2016)**

Advances in Computer Science Research Volume 58

Xiamen, China  
18 – 19 December 2016

## **Editors:**

**A. Petrillo**  
**B. Acherjee**  
**K. Weller**

ISBN: 978-1-5108-3570-2

**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© (2016) by Atlantis Press  
All rights reserved.  
<http://www.atlantis-press.com/php/pub.php?publication=msota-16>

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact the publisher:

Atlantis Press  
Amsterdam / Paris

Email: [contact@atlantis-press.com](mailto: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: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## TABLE OF CONTENTS

### **SYSTEMS MODELLING AND SIMULATION TECHNOLOGIES**

<b>3D 9<sup>+</sup>- MODEL REPRESENTING TOPOLOGICAL RELATION BETWEEN 3D BODIES WITH HOLES .....</b>	1
<i>Yunfei Shi, Shuang Di, Lingling Zhang, Ting Mi</i>	
<b>IMPACT DYNAMIC ANALYSIS OF MULTIBODY SYSTEM BASED ON IMPULSE MOMENTUM METHOD.....</b>	6
<i>Yuechen Duan, Tingting Wang, Xia Li</i>	
<b>MODELING OF COMPLEX APRON CONFLICT CONTROL BASED ON PETRI NET MODEL.....</b>	10
<i>Weijun Pan, Lei Yang, Xinping Zhu, Qinghai Zuo, Rundong Wang, Chuyang Yang, Jie Luo, Youjun Ye</i>	
<b>RESEARCH AND SIMULATION OF TASK SCHEDULING STRATEGY IN CLOUD COMPUTING.....</b>	13
<i>Tao Lin, Qianqian Xuan, Qingguo Xu, Mengxian Wu</i>	
<b>MODELING AND SIMULATION OF CERTAIN TYPE TURRET BASED ON FINITE ELEMENT METHOD.....</b>	19
<i>Jinzhong Zhang, Xiaofeng Liu, Fuquan Zhao, Yuchen Yue</i>	
<b>PREDICTION OF BREAST TISSUE AND PLASTIC RECONSTRUCTION IN DIFFERENT POSITIONS BY FINITE ELEMENT METHOD.....</b>	22
<i>Dongwei Dong, Tingchun Shi, Jie Luan, Xiuyan Yue</i>	
<b>INVERSION STUDY ON INITIAL FIELD OF PM2.5 TRANSPORT MODEL WITH THE ADJOINT METHOD .....</b>	26
<i>Youli Shen, Shaofeng Zhang, Ning Li, Chunhua Zhang</i>	
<b>A NOVEL PROCEDURE TO MODEL AND FORECAST MOBILE COMMUNICATION TRAFFIC BY ARIMA/GARCH COMBINATION MODELS .....</b>	29
<i>Quang Thanh Tran, Li Hao, Quang Khai Trinh</i>	
<b>SIMULATING PLC CONTROL SYSTEM BASED ON MULTISIM14 .....</b>	35
<i>Ju Han, Xinxi Zhang, Jun Xu</i>	
<b>THE SIMULATION OF SLEPIAN' S PROBLEM IN NETWORK INFORMATION .....</b>	38
<i>Jie Shen, Ou Wang, Geng Zhang, Yang Wang</i>	
<b>RESEARCH ON REAL-TIME TESTING MODELING BASED ON RTCM APPROACH .....</b>	43
<i>Ling Li, Ji Wu, Chao Liu, Haiyan Yang</i>	
<b>A LDA BASED MODEL FOR TOPIC EVOLUTION: EVIDENCE FROM INFORMATION SCIENCE JOURNALS .....</b>	49
<i>Maoran Zhu, Xiaopeng Zhang, Hongwei Wang</i>	
<b>FUZZY HIERARCHICAL SELECTION MODEL OF TOURISM DEVELOPMENT OF UNINHABITED ISLAND OF SOUTH CHINA .....</b>	55
<i>Wei Huang, Yanping Dai, Ruwen Liang, Yuanjun Huang, Qiuhua Cheng, Daobo Wang</i>	
<b>LANDSCAPE ECOLOGICAL SECURITY CONSTRUCTION AND EVALUATION RESEARCH BASED ON GIS AND MCR MODEL .....</b>	59
<i>Wensheng Deng, Cuizhao Zhao, Guiying Sun</i>	
<b>MONETIZING EVALUATION MODEL FOR HIGHWAY TRANSPORTATION RULES BASED ON CA .....</b>	63
<i>Yiling Liu, Jin Xiong, Xingyue Han, Hong Duan</i>	
<b>HARDWARE OVERHEAD ANALYSIS BETWEEN EMBRYONICS SYSTEM AND N MODULAR REDUNDANCY SYSTEM .....</b>	70
<i>Yafeng Meng, Sai Zhu, Chunhui Han</i>	
<b>PERSISTENCE OF GLOBAL WELL-POSEDNESS FOR FRACTIONAL DISSIPATION BOUSSINESQ SYSTEM .....</b>	74
<i>Xing Su, Yuming Qin</i>	
<b>NSD TOTAL CHOOSABILITY OF PLANAR GRAPHS WITH GIRTH AT LEAST FOUR.....</b>	78
<i>Xue Han, Jihui Wang, Baojian Qiu</i>	
<b>STUDY ON THE CUTTER SUCTION DREDGERS PRODUCTIVITY MODEL AND ITS OPTIMAL CONTROL .....</b>	81
<i>Minghong Yao, Yanling Wang, Jing Shang, Jianyong Zhang</i>	

<b>OBJECT MODEL OF QUALITY OF MEDICAL INSTRUMENT TRACEABILITY SYSTEM BASED ON FINITE STATE MACHINE.....</b>	86
<i>Liquan Han, Zhengchao Xu, Xiaobo Wang</i>	
<b>A COMPONENT-BASED SIMULATION MODEL.....</b>	90
<i>Weigong Lv, Fanchao Meng, Ce Zhang, Zhipeng Chen, Chang Yuan, Kun Wan, Yiran Zhao, Jianan Jiang</i>	
<b>SIMULATION AND OPTIMIZATION OF PRESSURE-SWING DISTILLATION SYSTEM FOR HIGH PURITY ACETONITRILE .....</b>	96
<i>Feini Huang, Shu Zheng, Yuxuan Chen, Mengxiang Zhou, Xiaofang Sun</i>	
<b>SPEED CONTROL SYSTEM OF THE GENERATOR WITH THE RADIAL MAGNETIC COUPLING USING SECOND ORDER MODEL.....</b>	101
<i>Soontorn Odngam, Jiraphon Srisertpol</i>	
<b>THE LINE-TYPE OPTIMIZATION OF HORIZONTAL ARCH-RING FOR FLOATING ARCH COFFERDAM .....</b>	106
<i>Zhen Wang, Zhibin Liu</i>	
<b>BEHAVIOR OF CURVED CONCRETE-FILLED CIRCULAR STAINLESS STEEL TUBULAR STRUTS UNDER COMPRESSION .....</b>	110
<i>Lianqiong Zheng, Min Chen, Yongqian Zheng</i>	
<b>THE STUDY ON THE CHANGE RULES OF DRIVE MOTOR LOAD BASED ON THE VEHICLE VIBRATION MODEL .....</b>	114
<i>Yuqing Cui, Xiaobo Qiu, Chen Zhang</i>	
<b>THE APPLICATION OF FUZZY COMPREHENSIVE EVALUATION IN THE EVALUATION OF COMPETITIVE INTELLIGENCE COMPETENCE OF SMALL AND MEDIUM SIZED ENTERPRISES .....</b>	118
<i>Guquan Xi, Xiaodong Li, Hong Fu</i>	
<b>SIMULATION AND ANALYSIS ON SIGNAL ACQUISITION OF BDS RECEIVER WITH THE AID OF INS.....</b>	121
<i>Shulei Chen, Xiaqing Tang, Xuwei Cheng, Junqiang Gao, Zepeng Sun</i>	
<b>SIMULATION AND STUDY ON PLATE-TYPE TOTAL PRESSURE DISTORTION SIMULATORS .....</b>	126
<i>Zhipeng Li, Guowang Zhang, Chao Lu</i>	
<b>SIMULATION AND EXPERIMENT STUDY ON SIX-DEGREES-OF-FREEDOM ACTIVE MICRO-VIBRATION ISOLATION PLATFORM .....</b>	130
<i>Gongyu Pan, Dong Li, Yunqiang Xiao</i>	
<b>HYBRID ARQ SCHEME USING COMPLEMENTARY PUNCTURED TURBO (CPT) CODES .....</b>	135
<i>Yang Zhang, Fan Yang, Zhongtao Huang, Weitong Zhao, Keyu Long</i>	
<b>RESEARCH ON THE CONSTRUCTION OF THE QUALITY EVALUATION MODEL OF GRADUATE THESIS BASED ON EVIDENCE THEORY .....</b>	140
<i>Yan Li</i>	
<b>STUDY ON THE AIRFLOW CHARACTERISTIC OF THE AIRFOIL VENTILATION FAN BASED ON COANDA EFFECT .....</b>	144
<i>Yaling Ye, Xiaoyong Peng, Yuan Zhang, Hu Wei</i>	
<b>DEVELOPMENT OF BSP UNDER WINCE AND ITS APPLICATION IN INKJET PRINTER .....</b>	147
<i>Hongwen Wang, Panyun Lei, Ning Le, Zhangliang Guo</i>	
<b>RESEARCH ON CIVIL AVIATION EMERGENCY DECISION-MAKING BASED ON SYSTEM DYNAMICS .....</b>	151
<i>Weijun Pan, Chuyang Yang, Heping Shi</i>	
<b>SERVICE QUALITY DECISION IN SERVICE SUPPLY CHAIN CONSIDERING SUPERVISION BEHAVIOR BASED ON QUANTUM GAME .....</b>	155
<i>Peng Xing, Cuihua Zhang, Shui Yu</i>	
<b>ANALYSIS OF NONLINEAR VIBRATION RESPONSE OF BOLT FIXED CANTILEVER BEAM UNDER HARMONIC EXCITATION.....</b>	161
<i>Yaobin Li, Huadong Yu, Qianglong Wang, Yang Song, Zhenyu Liu</i>	
<b>THE ANALYSIS ON THE SENSITIVITY OF GEOGRID REINFORCEMENT FACTORS IN MINE-TAILING SLOPES.....</b>	165
<i>Xiaolin Lei, Chunming Qi, Chunlong Nie, Fan Yang</i>	
<b>A RESTRAIN METHOD OF POLARIZATION EFFECT IN GAN/ALGAN RTD .....</b>	169
<i>Haipeng Zhang, Xiliang Hao, Mi Lin, Xiang Ning, Bin Wang, Jian He, Biao Han</i>	
<b>SIMULATION OF MAGNETIC FIELD PENETRATION OF CYLINDRICAL CAVITY WITH WOUND SOLENOID .....</b>	174
<i>Baoquan Mao, Tu Lan, Wei Deng</i>	

<b>GEANT4 SIMULATIONS OF THE RESPONSES OF THE GDI3:CE SCINTILLATOR DETECTOR TO THERMAL NEUTRONS AND GAMMA-RAYS.....</b>	177
<i>Zhongqing Wang, Yuefeng Huang, Yongping Li</i>	
<b>SIMULATION ANALYSIS OF FAULT FEATURE EXTRACTION AND FUSION FOR ANALOG CIRCUITS BASED ON INFORMATION FUSION .....</b>	181
<i>Shi Bao, Jun Xu</i>	
<b>MECHANISM MODELING AND PARAMETERS IDENTIFICATION OF PNEUMATIC BOOSTER MASS FLOW.....</b>	186
<i>Xiaohuan Pei, Qunli Shang, Kaibin Wang, Pengfei Li</i>	
<b>RESEARCH ON REGULATION TECHNOLOGY OF VOLTAGE QUALITY IN THE DISTRIBUTION NETWORK CONNECTED WITH DISTRIBUTED PV SYSTEM.....</b>	193
<i>Dufeng Cao, Ying Zhang, Yong Zhao, Yibo Wang, Honghua Xu</i>	

### **APPLIED MATHEMATICS AND STATISTICAL ANALYSIS**

<b>THE NUMERICAL SIMULATION OF THE GREEN RESIDENTIAL ENVIRONMENT .....</b>	199
<i>Yangluxi Li</i>	
<b>RESEARCH AND APPLICATION FOR THE NUMERICAL ANALYSIS METHOD OF PV ARRAYS OPERATING CHARACTERISTICS .....</b>	203
<i>Haoyi Wang, Zilong Yang, Yibo Wang, Rui Cao</i>	
<b>FINITE ELEMENT ANALYSIS OF THE SPACE ENERGY DISTRIBUTION OF INCINERATOR.....</b>	209
<i>Chenglin Du, E Liu, Fangfang Jian</i>	
<b>PARAMETRIC ADMISSIBLE CONTROL FOR DESCRIPTOR LINEAR SYSTEMS VIA STATE- DERIVATIVE FEEDBACK.....</b>	212
<i>Haihua Yu</i>	
<b>THE DESIGN OF THE BEST PENETRATION MANEUVERS PARAMETER OF VARIABLE TRAJECTORY MANEUVERS OF TARGET MISSILES .....</b>	218
<i>Kaibo Bi, Yifei Zhang, Xianhui Sui</i>	
<b>MULTI-PARAMETER ANALYSIS OF INFLUENCES OF AIR CONDITIONING SYSTEMS ON ELECTRIC VEHICLE .....</b>	225
<i>Hao Pan, Liangfei Xu, Jianqiu Li, Minggao Ouyang</i>	
<b>PARAMETER OPTIMIZATION OF SURFACE TEXTURES OF OIL-LUBRICATED JOURNAL BEARINGS .....</b>	232
<i>Yongfang Zhang, Jingqun Zhao, Liangjun Xiao, Xianwei Li, Yanjun Lu</i>	
<b>A FUNCTION PROJECTIVE SYNCHRONIZATION CONTROL FOR COMPLEX NETWORKS WITH PROPORTIONAL DELAYS .....</b>	237
<i>Xiuliang Qiu, Honghua Bin, Licai Chu</i>	
<b>WEIBULL DISTRIBUTION BASED MULTI-CLASS STOCHASTIC USER EQUILIBRIUM MODEL.....</b>	244
<i>Yuan Xu, Jing Zhou, Chaoyu Huang, Ke Lu</i>	
<b>PADÉ APPROXIMATION BASED ON ORTHOGONAL POLYNOMIAL.....</b>	249
<i>Bo Wu, Youhua Qian</i>	
<b>OPTIMIZATION METHOD FOR DEVELOPMENTAL SCHEME TO ULTRA-LOW PERMEABILITY RESERVOIR .....</b>	253
<i>Gongquan Li, Yiliang Di</i>	
<b>EXPERIMENT AND AMOUNT OPTIMIZATION ANALYSIS OF OIL-WATER MIXTURE FRYING MACHINE BASED ON FLUENT.....</b>	257
<i>Xuejing Zhang, Zhenwei Yu, Khurram Yousaf, Kunjie Chen</i>	
<b>TOPOLOGY OPTIMIZATION OF STRUCTURE WITH ASYMMETRY CEMENTITIOUS GRANULAR MATERIAL .....</b>	262
<i>Haipeng Jia, Qunying Men, Anil Misra, Congyi Liu</i>	
<b>STUDY ON COMPREHENSIVE OPTIMIZATION METHOD IN THE PERFORMANCE OF A NEW TYPE OF HIGH-SPEED USV AND ITS ANALYSIS .....</b>	267
<i>Zifan Wei, Songlin Yang, Shengping Jing, Man Liu</i>	
<b>POPULATION ITERATIVE ANNEALING ALGORITHM WITH IMPROVED INVER-OVER OPERATOR FOR TSP .....</b>	272
<i>Zhi Yuan, Yuanping Zhang</i>	
<b>AN OPTIMAL TRAFFIC CONTROL ALGORITHM FOR 4G LTE SYSTEMS.....</b>	277
<i>Xinjian Cao, Rui Wang</i>	

<b>ADAPTIVE OPTIMIZATION METHOD OF RESOURCE STRUCTURE IN UNCERTAIN ENVIRONMENT BASED ON CLOUD GENETIC ALGORITHM .....</b>	282
<i>Mengchen Liao, Peng Sun, Jieyong Zhang, Junsheng Wu</i>	
<b>THE RESEARCH AND IMPROVEMENT BASED ON FP-GROWTH DATA MINING ALGORITHM .....</b>	287
<i>Quanzhu Yao, Xingxing Gao, Xueli Lei, Tong Zhang</i>	
<b>AN ENHANCED Q ALGORITHM BASED ON EPC-C1G2 RFID PROTOCOL .....</b>	294
<i>Cunliang Niu, Hao Zhang, Tao Lin</i>	
<b>A COMPUTATIONAL ALGORITHM FOR THE INVERSE OF A SEVENDIAGONAL MATRIX.....</b>	298
<i>Yanling Lin, Xiaolin Lin</i>	
<b>AN INTELLIGENT COURSE SCHEDULING SYSTEM OF MILITARY ACADEMY BASED ON IMPROVED GENETIC ALGORITHM .....</b>	303
<i>Yanming Yang, Weituan Wu, Yue Teng</i>	
<b>SURROGATE-BASED SUPPORT VECTOR MACHINE METHOD.....</b>	307
<i>Yueyang Teng, Yaxin Liu, Xuan Xie, Bin Lu, Yan Kang</i>	
<b>CONSTRUCTION OF CLOUD LIBRARY.....</b>	315
<i>Dongju Bu, Yueheng Cao</i>	
<b>ANALYSIS OF CLOUD WORKFLOW SYSTEM.....</b>	319
<i>Hailan Pan, Cuihong Wu</i>	
<b>RESEARCH ON KEY TECHNOLOGIES OF MULTIMEDIA DATA SECURITY PROTECTION BASED ON CLOUD COMPUTING.....</b>	323
<i>Tingting Yang, Shuwen Jia</i>	
<b>A METHOD FOR INVERSION OF SMOOTH OPEN BOUNDARY CONDITIONS .....</b>	326
<i>Haidong Pan, Zheng Guo, Xianqing Lv</i>	
<b>A LARGER STEP-SIZE LINE SEARCH SELF-ADAPTIVE TRUST REGION METHOD AND ITS CONVERGENCE.....</b>	330
<i>Lin Feng</i>	
<b>APPLICATION OF CLUSTER ANALYSIS ON GAUSSIAN-MIXTURE PROBABILITY HYPOTHESIS DENSITY FILTER FOR MULTIPLE EXTENDED TARGET TRACKING .....</b>	335
<i>Zhuo Cao, Xinxi Feng, Yinglei Cheng, Hongyan Li</i>	
<b>MICRO-BLOG QUERY EXPANSION BASED ON LEXICAL TIME DISTRIBUTION.....</b>	340
<i>Zheng Xiao</i>	
<b>TEXT CLASSIFICATION METHOD BASED ON MACHINE LEARNING AND DOMAIN KNOWLEDGE ONTOLOGY .....</b>	344
<i>Zhiyong Gao, Shuhan Qiao, Yongquan Liang</i>	
<b>OVERVIEW OF MISSILE CONTROL METHOD.....</b>	348
<i>Chen Li, Jingyu Yang, Qing Wang, Zhijie Zhang, Hailong Wang, Jiahe Sun, Tianfen Mo, Shiwei Sun</i>	
<b>REALIZATION OF FULL ACQUISITION OF RENEWABLE ENERGY BASED ON QUOTA SYSTEM.....</b>	351
<i>Zhiming Xie, Yuan Zhang</i>	
<b>RESEARCH ON A METHOD AND CASE OF USERS' PARTICIPATION IN PRODUCT INNOVATIVE DESIGN .....</b>	355
<i>Ertian Hua, Jiaji Zhong, Lei Hu, Qizong Sun, Chuan Chen</i>	
<b>A MULTI AGENT FRAMEWORK FOR TRADING ON THE ENERGY OF INTERNET .....</b>	361
<i>Qiang Luo, Chen Qi, Jinglin Guo</i>	
<b>A COMPREHENSIVE EVALUATION APPROACH TO MEASURE SUSTAINABLE DEVELOPMENT OF COUNTRIES .....</b>	364
<i>Zhifeng Kong</i>	
<b>RESEARCH ON SAFETY RISK ASSESSMENT METHOD OF AMPHIBIOUS EQUIPMENT AT MARITIME TRAINING .....</b>	369
<i>Jianhua Luo, Naibo Zheng, Da Xu, Qingyang Guo</i>	
<b>RESEARCH ON COST CONTROL LINE OF OVERHEAD TRANSMISSION LINE PROJECTS IN CHONGQING .....</b>	373
<i>Guangjin Peng, Hui Zhu, Xiaorui Xing, Tingting Feng, Xuanhong Liang</i>	
<b>REVA-BASED VALUE ANALYSIS ON LISTED COMPANIES OF POWER INDUSTRY .....</b>	377
<i>Qingyou Yan, Yonghua Wang</i>	
<b>FIRST-PRINCIPLES INVESTIGATION OF NAMGH<sub>3</sub> HYDROGENATING PROPERTIES AFFECTED BY CATALYST .....</b>	380
<i>Xuelian Niu, Zhongqi Luan, Dan Zhou, Guijuan Yang</i>	

## **COMPUTER VISION AND RECOGNITION TECHNOLOGIES**

<b>RESEARCH ON ROBOT VISUAL SERVO CONTROL BASED ON IMAGE IDENTIFICATION.....</b>	384
<i>Qian Wu, Jinan Gu</i>	
<b>ANALYSIS AND VISUALIZATION OF ELECTROMAGNETIC SITUATION BASED ON RASTER DATABASE .....</b>	388
<i>Hanyan Huang, Mingshan Shao, Hua Zhang, Yulan Chen</i>	
<b>AN INTELLIGENT METHODS FOR POINTER INSTRUMENT READING BASED ON MACHINE VISION .....</b>	393
<i>Huanjun Liu</i>	
<b>THE DESIGN OF SMART GRID IDENTITY AUTHENTICATION SYSTEM BASED ON FINGERPRINT IDENTIFICATION .....</b>	397
<i>Xiuqing Wang, Jimin Zhao, Xueying Qiao, Fangyuan Che</i>	
<b>IMAGE SECRET KEY GENERATION METHOD BASED ON BIT EXTRACTION .....</b>	400
<i>Shuai Chen, Xiaojun Xu, Youneng Zhang, Fang Han, Ying Li, Xiaodong Zheng</i>	
<b>THE VIRTUAL SURGERY OF EXTRAOCCULAR MUSCLES BASED ON GESTURE INTERACTION.....</b>	404
<i>Mingxuan Chen, Guanglong Du, Ping Zhang, Chuangye Zhao</i>	
<b>VOICE GENDER RECOGNITION USING DEEP LEARNING.....</b>	409
<i>Mucahit Buyukyilmaz, Ali Osman Cibikdiken</i>	
<b>IDENTIFICATION OF OPINION LEADERS IN SOCIAL NETWORKS BASED ON SENTIMENT ANALYSIS: EVIDENCE FROM AN AUTOMOTIVE FORUM .....</b>	412
<i>Maoran Zhu, Xingkai Lin, Ting Lu, Hongwei Wang</i>	
<b>IRIS RECOGNITION UNDER PARTIAL OCCLUSION BASED ON NON-NEGATIVE SPARSE REPRESENTATION CLASSIFICATION .....</b>	417
<i>Fenghua Wang, Qiumei Zheng, Shaoshu Gao</i>	
<b>AN ENHANCED LOCAL BINARY PATTERN FOR TEXTURE CLASSIFICATION.....</b>	421
<i>Huawei Tao, Rugang Wang, Li Zhao</i>	
<b>A VEHICLE TARGET ASSIGNMENT METHOD.....</b>	425
<i>Yong Sun, Wenwei Li, Dan Huang, Yuan Feng</i>	

## **INTELLIGENCE INFORMATION SYSTEMS AND ITS APPLICATION**

<b>STUDY ON STRATEGY OF AUTOMATIC SHIFT BASED ON ANFIS FOR INTELLIGENT PURE ELECTRIC VEHICLE .....</b>	428
<i>Bingli Zhang, Jiaoyu Xing, Yunsheng Ye, Zhihao Bai</i>	
<b>THE DESIGN OF LIGHTWEIGHT UAV CLASSIFICATION ACCELERATING ECTROMAGNETIC LAUNCHER .....</b>	431
<i>Hailong Wang, Jingyu Yang, Zhiping Zhang, Chen Li, Zhihao Zhang, Guangliang Xu, Bowen Zhang, Gang Wang</i>	
<b>INTELLIGENT FIXTURE SYSTEM FOR CNC MILLING MACHINING OF THIN-WALLED STRUCTURE .....</b>	436
<i>Zhiping Zhang, Jingyu Yang, Hailong Wang, Chen Li, Qing Wang, Jiahe Sun, Tianfen Mo, Shiwei Sun</i>	
<b>ARTIFICIAL NEURAL NETWORKS FOR RADIATION DOSE PREDICTION IN NUCLEAR EMERGENCIES-PRELIMINARY INVESTIGATIONS.....</b>	441
<i>Cláudio Márcio Do Nascimento Abreu Pereira, Roberto Schirru, Kelcio Gomes, José Luiz Cunha</i>	
<b>RESEARCH ON MANEUVERING TARGET STEALTH METHOD BASED ON IMAGE INFORMATION .....</b>	445
<i>Shan Chen, Junchun Ma, Can Sun, Zhong Wang, Ningbo Gao</i>	
<b>THE IMPLEMENTATION OF OILFIELD OPERATION SIMULATION EXAMINATION SYSTEM CLIENT BASED ON MOBILE DEVICE.....</b>	447
<i>Ya Zhao, Lina Sun, Shengyi Lv, Lin Lin</i>	
<b>SCAPE: AN APPLICATION PLATFORM FOR ENVIRONMENTAL BIG DATA ANALYSIS IN SMART CITIES .....</b>	452
<i>Rundong Fan, Gang Wu</i>	
<b>APPLICATION RESEARCH OF SENSITIVITY ANALYSIS IN NEW GENERATION INTELLIGENT SUBSTATIONS.....</b>	456
<i>Hui Zhu, Guangjin Peng, Xiaorui Xing, Chunyan Jia, Haiwei Yu</i>	
<b>DESIGN AND IMPLEMENTATION OF SMART SOCKETS WITH HIGH FREQUENCY ACQUISITION OF ELECTRIC ENERGY PARAMETERS .....</b>	459
<i>Qiansheng Fang, Guangjin Zhang, Shanshou Li, Zhenya Zhang</i>	

<b>ALTERNATIVE SCENARIO SELECTION GAMES FOR FLOOD MITIGATION OPTIMIZATION .....</b>	463
<i>Guoyi Zhang, Kaiwen Zhang, Minghui Fang</i>	
<b>POWER COMPONENT SIZING BASED ON POWER ALLOCATION STRATEGY FOR A FUEL CELL/BATTERY HYBRID TRAM .....</b>	468
<i>Wenbin Zhang, Liangfei Xu, Jianqiu Li, Yuwen Liu, Qingjun Han, Yankun Li</i>	
<b>RESEARCH AND CONSTRUCTION OF LEARNING COMMUNITY MODEL BASED ON SOCIAL NETWORK SERVICES .....</b>	474
<i>Liang Hu</i>	
<b>DROPPING SIMULATION OF PRINTED CIRCUIT BOARD WITH BGA SOLDERING ASSEMBLY FOR OPTICAL MODULE APPLICATION .....</b>	477
<i>Shouxu Wang, Yunzhao Chen, Li Zheng, Yuanming Chen, Huaiwu Zhang, Lijun Gong, Bei Chen, Wei He</i>	
<b>LOAD FORECASTING OF POWER SCADA BASED ON SPARK MLLIB .....</b>	480
<i>Tao Lin, Chong Jiang</i>	
<b>DESIGN OF A DUAL-POLARIZATION DUAL-BAND MIMO ANTENNA FOR WIRELESS APPLICATIONS .....</b>	485
<i>Xiaoying Ran, Jingxin Wei, Zhen Yu</i>	
<b>Author Index</b>	