# TABLE OF CONTENTS

## ENERGY SCIENCE AND TECHNOLOGY

**ANALYSIS ON THE ENERGY CONSUMPTION AND CARBON EMISSION OF JIANGXI'S TOURISM INDUSTRY USING THE EXTENDED KAYA IDENTITY**
Junsong Jia, Xiu Zhou, Xinping Zhong

**EFFECTIVE DETUNING OF A THREE-LEVEL ATOM INTERACTED WITH THE LAGUERRE-GAUSSIAN LASER BEAM**
Yanli Wang, Zhengling Wang, Naifei Ren, Yaru Wang, Xinzhi Hu

**THE DESIGN OF ULTRASONIC LIQUID LEVEL DETECTION SYSTEM BASED ON ARM**
Ling Yi, Bing Yi, Heng Xie

**RESEARCH ON RAPID PRODUCT DESIGN BASED ON WAVE TECHNOLOGY**
Linzhen Zhou, Qingzhu Li

**STUDY ON THE DYNAMIC RELATIONSHIP BETWEEN CARBON EMISSIONS AND ENERGY CONSUMPTION IN CHINA**
Yifeng Wang

**RESEARCH ON THE RISK EVALUATION MODEL AND APPLICATION OF COAL LOGISTICS SUPPLY CHAIN NETWORK**
Lieying Zhao, Xifu Wang, Hongsheng Sun

## ENVIRONMENTAL SCIENCE AND ENGINEERING, MOTIVATION

**EXPERIMENTAL STUDY ON CHARACTERIZATION OF GROUND HEAT EXCHANGE PIPE THERMAL DEFORMATION**
Renzhu Wang, Youming Wang, Qing Gao

**IN-SITU MONITORING OF THE EFFECT OF EXTERNAL ENVIRONMENT ON A CONTEMPORARY BUILDING IN PRAGUE: THE PERFORMANCE OF THE ADDITIONAL THERMAL INSULATION SYSTEM**
Zbyšek Pavlík, Jan Fort, Pavel Beran, Robert Erný

**USE OF SEWAGE SLUDGE AS RAW MATERIAL IN THE Manufacture OF ROOFS**
Durante Ingunza, Maria Del Pilar, Lima Andressa Dantas, Nascimento Rubens Maribondo

**EFFECT OF AIR MIXING ON SUBWAY CABIN TEMPERATURE DURING HEATING IN WINTER SEASON**
Youngmin Cho, Woo-Sung Jung, Soon-Bark Kwon, Duck-Shin Park

**CASE STUDY OF ENVIRONMENTAL IMPACT ANALYSIS FOR RAILROAD CONSTRUCTION PROJECT BY USING LIFE CYCLE ASSESSMENT METHOD**
Woo-Sung Jung, Jae-Young Lee, Youngmin Cho, Tae-Soon Kwon

**LABORATORY CRITICAL EXPERIMENT SIMULATING LONG-TERM EXPOSURE TO EXTERNAL ENVIRONMENT: A HOLLOW BRICK BLOCK WITH MINERAL-WOOL-FIBER CAVITY FILLER**
Zbyšek Pavlík, Jan Fort, Milena Pavlíková, Robert Erný

**THE EFFECT OF DIFFERENT IMPROVEMENT METHODS ON GROWTH OF PYRUS BETULAEFOLIA GROWN ON ALKALI-SALINE LAND**
Wuque Gong, Jinghui Yang, Yanjun Qin, Weizi Huang, Yanjun Liu, Chao Zhang

**DAMAGE ASSESSMENT OF OFFSHORE RISER-GUARDS UNDER ACCIDENTAL VESSEL IMPACT**
Zubair Imam Syed, Osama Ahmed Mohamed, Dinesh Palaniandy, Mohd Shahir Liew

**RESEARCH ON COST MANAGEMENT OF CONSTRUCTION PROJECT BASED ON ACTIVITY-BASED COSTING**
Jianqiang Tang, Maoping Zhang, Hua Tang, Yuan Chen

**PREPARATION OF CHEMICAL MODIFIED WASTE CORN STALK BY UREA FOR REMOVAL OF LEAD (Ⅰ) AND STUDY ON ITS ADSORPTION ISOTHERM**
Qingshan Pan, Xianlan Chen, Ling Shi, Heiping Yan, Bo Zhou, Shijuan Xu, Jing Wang, Gaozhang Gou, Na Wu, Fansheng Huang, Yanhui Long, Wei Liu

**ADSORPTION ISOTHERM STUDY OF Cd(II) BY POLYAMINE WHEAT STRAW CELLULOSE**
Qingshan Pan, Xianlan Chen, Ling Shi, Heiping Yan, Bo Zhou, Shijuan Xu, Jing Wang, Gaozhang Gou
FABRICATION AND APPLICATION OF REMOVING MICROCYSTIN OF CTA-BASED FORWARD OSMOSIS MEMBRANE ................................................................. 61
Xiaoxiao Lu, Guie Chen
SHENZHEN BAY FLYING SWALLOW TYPE COMPOSITE ARCH BRIDGE DESIGN ................................................................. 65
Yong Li, Xiaoxiong Zha, Chongli Zhu
RELATIONSHIP BETWEEN URBAN FORM AND THE CO2 EMISSION OF ENERGY CONSUMPTION BASED ON THE HI_PLS MODEL – A CASE STUDY IN SHANGHAI .................................................. 68
Jinsong Jia, Xin Zhou, Jing Lei
THE INVENTORY COST OF AN ENGINEERING PROJECT SUPPLY CHAIN BASED ON SYSTEM DYNAMICS ........................................................................... 72
Qiuqin Lu, Pengfei Chen
RESEARCH ON DESIGN TECHNOLOGY OF GREEN BUILDING FOR ENVIRONMENTAL PROTECTION ................................................................. 75
Li Xu, Bin Zhou, Chuxin Wang
THE SITE SELECTION OPTIMIZATION OF THE JOINTED ROCK MASSES CAVERN IN THE MOUNTAIN WITH DIFFERENT SLOPE DEGREE ............................................................................. 78
Bangxiang Li, Weishen Zhu, Chao Li, Dunfu Zhang, Hao Zhou
RESEARCH ON THE DESIGN OF EXEMPLARY ECOLOGICAL AND ENVIRONMENTAL-FRIENDLY ARCHITECTURE ................................................................. 82
Yanwen Wang, Xuen Hou
STUDY ON CREEP PROPERTY AND CREEP MODEL FOR THE ROCK FOUNDATION OF HIGH FILL CARBONATE ........................................................................... 85
Jin yi Fu, Bin Wu, Hong Wang
POLY ACRYLIC ACID ETHYL ACRYLATE AS SMART CARRIER FOR REBAR INHIBITOR DELIVERY IN ALKALINE CONDITION ................................................................. 89
Lijuan Feng, Meirong Li, Shanshan Zhang, Haibo Lei, Xin Cui
ESTABLISHMENT OF ISOLATION METHOD BY CO-CULTURING OF L.PARACASEI HD1.7 AND B.SUBTILIS IN TWO MEDIA ........................................................................... 92
Xinglin Li, Shoufeng Huang, Yanyang Sun, Jingping Ge, Wenxiang Ping
INFLUENCE OF SEAWATER FLOW VELOCITY ON THE MORPHOLOGICAL CHARACTERISTICS OF CALCAREOUS DEPOSITS FORMED BY CATHODIC PROTECTION ........................................................................... 95
Chengjie Li, Min Du, Xin Cui
A NEW METHOD FOR IMAGE DENOISING WITH NONLOCAL MEANS ........................................................................... 99
Xuyao Zhang, Zhiyong Xu
EFFECTS OF SAND COMPOSITION ON THE MECHANICAL PROPERTIES OF CA MORTAR ........................................................................... 103
Xiao-hui Zeng, Hua Yan, Fulin Qu, Shun-hao Wang, Lilin Fu, Kai Yang
TECHNOGENIC MERCURY ENVIRONMENT POLLUTION AND HUMAN HEALTH IN MINING SETTLEMENT OF FEFD ........................................................................... 108
L. T. Krupskaya, V.P. Zvereva, N.G. Volobueva, V.T. Togirova, K.E. Gula
INNOVATION APPROACH TO ENVIRONMENT PROBLEMS SOLUTION AT COAL PRODUCERS OF THE FAR EASTERN FEDERAL DISTRICT (FEFD) ........................................................................... 111
L. T. Krupskaya, V.P. Zvereva, V.A. Morin, L.P. Gul, N.G. Volobueva, D.A. Golubev
A PREDICTIVE MODEL OF DIFFERENT TEMPERATURE GROWTH OF ESCHERICHIA COLI IN FRESH-CUT LETTUCE BASED ON MATLAB7.0 ........................................................................... 114
Hai xia Duan, Feng Tan, Xin Xin Yi, Hong xing Zhang, Maoshu Hou, James E.M. Monaghan
ANALYSIS OF THE IMPROVEMENT OF THE CARBON FIBER MONO-FILAMENTS TENSILE STRENGTH IN TENSILE DEVICE ........................................................................... 119
Jiabin Xu, Guixin Zhao, Haitao Wen, Zhaoqin Dong, Daigen Chen

ELECTRICAL ENGINEERING AND AUTOMATION

A CALIBRATION METHOD OF CHANNEL ERROR OF DIGITAL MEASUREMENT SYSTEM BASED ON THE ONE ELEMENT LINEAR REGRESSION ........................................................................... 121
Ji Xu
NUMERICAL SIMULATION OF FLOW FIELD AND PROPER PLACEMENT RANGE OF AN AEROSOL SAMPLER ON AN UAV ........................................................................... 125
Jing Zhang, Yu qin Ji
MODELING AND SIMULATION FOR THE AC-DC ELECTRIC LOCOMOTIVE ........................................................................... 128
Xiufang Jia, Zhe Liu
THE RESEARCH OF CAPACITOR VOLTAGE BALANCING STRATEGY OF MMC ........................................................................... 131
Xiufang Jia, Jichen Liu, Jianpo Zhang
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A PANEL DATA ANALYSIS ON THE RELATIONSHIP BETWEEN REAL ESTATE VALUE AND GDP</td>
<td>134</td>
</tr>
<tr>
<td>Huachao Qian, Jian Chen, Qi Wang, Chen Liu</td>
<td></td>
</tr>
<tr>
<td>THE RESEARCH OF INTENSIVE USE OF LAND RESOURCES IN THE PROCESS OF CONSTRUCTING JINAN METROPOLITAN</td>
<td>138</td>
</tr>
<tr>
<td>Xuegang Cui, Chengxin Wang</td>
<td></td>
</tr>
<tr>
<td>ESTIMATION OF CROP EVAPOTRANSPIRATION IN NORTH OF SHANXI PROVINCE</td>
<td>140</td>
</tr>
<tr>
<td>Qiubo Long</td>
<td></td>
</tr>
<tr>
<td>INTENSION AND EXTENSION STUDY ABOUT MODERN MACHINE INTERFACE DESIGN</td>
<td>144</td>
</tr>
<tr>
<td>Xu Chen</td>
<td></td>
</tr>
<tr>
<td>STUDY AND ADVANCE ON HIGH SPEED MACHINE TOOL SLEEVE BEARING WITH LOW VISCOSITY LUBRICATION</td>
<td>147</td>
</tr>
<tr>
<td>Li-li Wang, Miao Wang</td>
<td></td>
</tr>
<tr>
<td>THE DESIGN OF MULTI-PROTOCOL CONVERTER BASED ON FUNCTIONAL ANALYSIS</td>
<td>150</td>
</tr>
<tr>
<td>Yan Wu, Jingjing Zhou</td>
<td></td>
</tr>
<tr>
<td>A HARDWARE DESIGN OF VEHICLE INFORMATION PLATFORM</td>
<td>154</td>
</tr>
<tr>
<td>Yingqing Wu</td>
<td></td>
</tr>
<tr>
<td>ANALYSIS AND RESEARCH ON THE STARTING PROCESS OF CONTROL ALGORITHM FOR CERTAIN TYPE OF AVIATION AUXILIARY POWER UNIT</td>
<td>158</td>
</tr>
<tr>
<td>Ya-nan Guo, Ding Fan, Kai Peng, Qiu-xia Wang</td>
<td></td>
</tr>
<tr>
<td>DESIGN OF POWER TRANSFORMER IN MTEM TRANSMITTER POWER</td>
<td>161</td>
</tr>
<tr>
<td>Xiao-li Liu, Junxia Gao, Jiaishen Tian, Yutao Zhang</td>
<td></td>
</tr>
<tr>
<td>THE HARDWARE DESIGN OF INTELLIGENT MANAGEMENT SYSTEM FOR TRAFFIC</td>
<td>165</td>
</tr>
<tr>
<td>Jinfang He, Ling Long</td>
<td></td>
</tr>
<tr>
<td>SPEED CONTROL SCHEME OF LARGE-LED DISPLAY SCREEN</td>
<td>168</td>
</tr>
<tr>
<td>Jingjing Zhou, Yan Wu</td>
<td></td>
</tr>
<tr>
<td>IMPLEMENTATION OF DATA TRANSMITTED NETWORK BASE ON OPNET</td>
<td>171</td>
</tr>
<tr>
<td>Juan Wang, Lan Qiu</td>
<td></td>
</tr>
<tr>
<td>RESEARCH ON INTERACTION DESIGN OF MULTI-SCREEN INTERACTIVE PRODUCTS BASED ON MOBILE TERMINAL</td>
<td>174</td>
</tr>
<tr>
<td>Xinzxiong Liu, Congmei Huang, Haiping Zhao, Wensi Li</td>
<td></td>
</tr>
<tr>
<td>RESEARCH OF THE MODEL OF TRAFFIC INFORMATION ACQUISITION AND DISTRIBUTION BASED ON VANET</td>
<td>178</td>
</tr>
<tr>
<td>Lan Qiu, Juan Wang</td>
<td></td>
</tr>
<tr>
<td>DATABASE DESIGN ON ENGLISH EXAMINATION COMPREHENSIVE INFORMATION SYSTEM</td>
<td>182</td>
</tr>
<tr>
<td>Rui Xiang</td>
<td></td>
</tr>
<tr>
<td>DEVELOPMENT SITUATION AND PROSPECT OF CHINESE INDUSTRIAL ROBOTS</td>
<td>186</td>
</tr>
<tr>
<td>Haiichao Gao, Ruipeng Guo, Pengcheng Li</td>
<td></td>
</tr>
<tr>
<td>THE DEVELOPMENT AND UTILIZATION OF RESOURCES</td>
<td></td>
</tr>
<tr>
<td>EFFECTS OF SEWAGE SLUDGE ASHES ADDITION IN PORTLAND CEMENT CONCRETES</td>
<td>189</td>
</tr>
<tr>
<td>Fernandes de Lima, Durante Ingunza, Maria del Pilar</td>
<td></td>
</tr>
<tr>
<td>A DESIGN OF THE HOT WATER BATH SYSTEM</td>
<td>192</td>
</tr>
<tr>
<td>Yingqing Wu</td>
<td></td>
</tr>
<tr>
<td>MODELING OF MECHANICAL PROPERTIES AND MORPHOLOGICAL ANALYSIS OF GLASS FIBER NYLON 6 COMPOSITE</td>
<td>196</td>
</tr>
<tr>
<td>Piyush P. Gohil, Jitendra M. Mistry, Vijay P. Chaudhary</td>
<td></td>
</tr>
<tr>
<td>INVESTIGATION ON DRILLING OF BANANA FIBRE REINFORCED COMPOSITES</td>
<td>201</td>
</tr>
<tr>
<td>Kundan Patel, Vijaykumar Chaudhary, Piyush P. Gohil, Keval Patel</td>
<td></td>
</tr>
<tr>
<td>THEORY AND PRACTICE OF SUSTAINABLE DEVELOPMENT</td>
<td></td>
</tr>
<tr>
<td>THE ANALYSIS OF ORGANIZATION OF DISMANTLING METHODS OF END-OF-LIFE VEHICLES FOR THE NEEDS OF RECYCLING</td>
<td>206</td>
</tr>
<tr>
<td>Viktor Kryaskov, Sergey Gagunov, Anton Tumasov</td>
<td></td>
</tr>
<tr>
<td>THE SUSTAINABLE DEVELOPMENT OF RURAL AREAS</td>
<td>210</td>
</tr>
<tr>
<td>Maria Colucci, Annunziata Palermo, Mauro Francini</td>
<td></td>
</tr>
</tbody>
</table>
# COMPUTER APPLICATIONS AND INFORMATION TECHNOLOGY

## THE APPLICATION OF WELL-LOG DATA IN MICRO FAULT IDENTIFICATION

Jiayi Wu, Yi Bao

## RECOVERY AND HELP SYSTEM FOR THE ELDERS BASED ON GSM

Zhiliang Chen, Linuo Tian, Meng Li

## BRIGHTNESS TEMPERATURE CHANGES FROM SATELLITE INFRARED INFORMATION BEFORE WEN'AN EARTHQUAKE

Yaling Ning, Haijie Lu, Congxin Wei, Jiaxu Xu

## RESEARCH AND IMPLEMENTATION OF A NETWORK SECURE SYSTEM BASED ON HONEYPOTS

Bingqing Luo, Zhixin Sun

## DESIGN AND IMPLEMENTATION OF SEMANTIC RESOURCE MANAGEMENT PLATFORM BASED ON LDAP

K.Q. Wu, C.C. Liu

## DESIGN AND REALIZATION OF OIL RAPID DETECTOR

Xin Li, Letian Teng, Wennan Miao

## DESIGN AND IMPLEMENTATION OF MONITORING AND MANAGEMENT SYSTEM FOR DISCRETE MANUFACTURING PROCESS BASED ON IOT TECHNOLOGY

Qibing Lu, Buyun Sheng

## RESEARCH ON THE LAYERING A* ALGORITHM FOR REAL-TIME NAVIGATION

Xiao Tan, Tao Chen

## MULTI-LEVEL COMPREHENSIVE EVALUATION MODEL BASED ON TRIANGULAR FUZZY NUMBERS AND GRAY RELATIONAL THEORY

Heng Yang, Gening Xu, Xiaoming Fan

## RESEARCH OF THE ADAPTIVE ROUTING ALGORITHM BASED ON STATE PERCEPTION IN A RECONFIGURABLE NETWORK

Xiao-min Zhang, Chao Wang, Li-ming Liu

## CONSENSUS AND OBSTACLE AVOIDANCE OF PARTIALLY-INFORMED MULTI-AGENT SYSTEM

Jiaojie Li, Wei Zhang, Yupu Yang

## INFLUENCES OF SOFTWARE POSTURES ON SOFTWARE INTERFACE DESIGN

Chao Gao, Kunjian Wang

## ROLL ANGULAR VELOCITY REAL-TIME TRACKING ALGORITHM BASED ON GEOMAGNETIC INFORMATION WITH FREQUENCY-LOCKED LOOP

Zhen Wang, Fengqi Gao, Min Guo, Zhicai Lu

## QUALITATIVE ANALYZING AND EVALUATING ENERGY EFFICIENT DATA CENTERS BASED ON CLOUD MODEL IN CLOUD ENVIRONMENT

Ke Han, Xiaobo Cai, Hui Rong

# EDUCATION AND TRAINING

## STATUS ANALYSIS OF TRAINING OF PROFESSIONAL TALENTED IN MEDICAL INFORMATION EDUCATION

Yuanyuqiang Wang, Shangfu Hao, Xiao Zhang

## RESEARCH ON CURRENT SITUATION AND COUNTERMEASURES OF PHYSICAL TRAINING FOR MALE ATHLETES IN DRAGON BOAT RACE

Bing Li

## ON THE APPLICATION OF PSYCHOLOGICAL TRAINING IN ATHLETIC TRAINING

Bin Xu

## HOW TO IMPROVE THE ATHLETES' PHYSICAL FITNESS

Bin Xu

## THE ROLE OF PHYSICAL TRAINING IN BADMINTON TEACHING

Bin Xu

## COLLEGE STUDENTS' HEALTH EDUCATION AND COLLEGE SPORTS ENVIRONMENT

Bin Xu

## RESEARCH ON CURRENT SITUATION AND COUNTERMEASURES OF ECOLOGICAL ENVIRONMENT CONSTRUCTION OF SCHOOL SPORTS

Bin Xu
SPORTS ENVIRONMENT AND SUNNY SPORT ACTIVITIES IN SCHOOL .............................................................. 295
Bin Xu

LEISURE HEALTHY GREEN CONSTRUCTION UNDER THE PERSPECTIVE OF SYMBIOSIS THEORY .............................................................. 298
Jianping Shu, Denfangle Chen, Bin Yang, Xiaoyuan Wen

RESEARCH AND ANALYSIS ON THE STATUS QUO OF AND COUNTERMEASURES FOR PROFESSIONAL TAEKWONDO ATHLETES IN SOUTHWEST CHINA—MAINLY IN SICHUAN AND CHONGQING .............................................................. 301
Xiaoyuan Wen

A STUDY ON SPORTS TRAINING MANAGEMENT SYSTEM OF SOME UNIVERSITIES IN CHENGDU .............................................................. 305
Xiaoyuan Wen

RUBBER BAND COMBINATION IS APPLIED TO DEFENSIVE TRAINING OF BASKETBALL PLAYER .............................................................. 308
Xinwen Li

THE CONSTRUCTION OF DISTANCE EDUCATION OF ELITE ATHLETES IN THE EDUCATION OF CULTURAL QUALITY GUARANTEE SYSTEM .............................................................. 310
Xueda Yang, Xiangdong Liu, Youzhi Zong

MOTION TO REDUCE WEIGHT AND BODY SHAPE .............................................................. 313
Jian Liu, Lijun Xu

ON THE PROFESSIONAL EDUCATION OF SOCIAL SPORTS .............................................................. 315
Jian Liu, Lijun Xu

DISCUSSION ON THE ESSENCE OF SCHOOL PHYSICAL EDUCATION .............................................................. 318
Xiaojun Li

AESTHETIC REFLECTION ON P.E. TEACHING COURSEWARE DESIGN .............................................................. 322
Qing Lan

MECHANICAL DESIGN AND MATERIALS PROCESSING

THE APPLICATION OF NEW MATERIALS TECHNOLOGY IN BASKETBALL .............................................................. 327
Yiqi Song

THE SIMULATION ABOUT ELECTRIC-FIELD DISTRIBUTION AND GAIN CHARACTERISTIC OF GEM DETECTOR BY MAXWELL AND GARFIELD .............................................................. 329
Ai-xing Wang, Qianglin Wei, Yibao Liu

ANALYSIS AND EVALUATION OF OPERATIONAL STATUS OF VERTICAL CYLINDRICAL FURNACE .............................................................. 334
Dong Sun, Dandan Yu, Guodong Feng, Yongxue Zhang, Hucan Hou, Menglong Li, Weibo Zheng, Lu Fan, Xiaofeng Hu

STEEL PRODUCTION SCHEDULING BASED ON PRICED TIMED AUTOMATA .............................................................. 339
Lixia Ji

GANGUE UTILIZATION METHODS INQUIRY .............................................................. 343
Xinghua Li, Honghong Wang, Xiaomeng Li

INFRARED SMALL TARGET DETECTING BASED ON PARALLEL STREAMING PIPELINE ARCHITECTURE .............................................................. 346
Taotao Hu, Liming Wang, Jingen Wang, Hu Sheng

AN IMPROVED TIP MODELING METHOD .............................................................. 350
Lianjin Deng, Dexiang You

STUDY ON THE ABILITY AND STABILITY OF MULTI-FINGERED HANDS ROBOT FOR GRASPING EXPLOSIVES .............................................................. 353
Haijun Mo, Zhisheng Lin, Jiajun Zhou

INVESTIGATIONS ON THERMAL INSULATION AND VAPOR RESISTANCE OF BODY ARMOR USING THERMAL MANIKIN METHOD .............................................................. 358
M.Q. Yuan, M. Fu, J. Yang, J.H. Jiang, X.M. Qian

HOT STAMPING OF BORON ALLOY STEELS USING RESISTANCE HEATING .............................................................. 362
Zhiqiang Zhang, Xiaofei Jia, Xiangji Li, Yong Zhao

THE DESIGN OF COULOMETRIC THICKNESS GAUGE BASED ON MICROPROCESSOR .............................................................. 366
Limin Cai, Song Tang, Shizhen Zhang, Wu Xia

THE SIMPLE METHOD TO PROCESS INTERSECTING LINE WITH MACRO PROGRAM .............................................................. 369
Mingqing Wang

AN INVESTIGATION ON THE CONFIGURATION OF SPACESUIT SOFT JOINTS .............................................................. 371
Qilin Liu, Xiangyang Liu
STUDY OF RIVETING MACHINE RIVETING DEVICE BASED ON CONCEPTUAL DESIGN ................................................. 375  
Jiaqing Jian, Guoquan Zhang, Zhiming Yu, Hongwei Fang

A STUDY OF VENDING MACHINE INTERFACE SYSTEM AND USER BEHAVIOR ON MULTI-INTERFACE VENDING MACHINE IMPROVED DESIGN ................................................................. 379  
Ping Li, Cheng Li

SPOT WELD FATIGUE LIFE PREDICTION OF COMMERCIAL VEHICLE CAB ......................................................... 382  
Jing Chen, Xiaochuan Gao, He Huang, Yanhua Liu

CONTROL METHOD AT OBSTACLE AVOIDANCE STAGE FOR SPACECRAFT ............................................................ 387  
Xueyuan Zhang

PREPARATION AND APPLICATION OF GRAPHENE MODIFIED HEATED GLASSY CARBON ELECTRODE ........................................... 391  
Hao Cheng, Shuotong Jiang

PHYSICS AND ELECTRICAL SYSTEMS

WIRELESS INSTRUMENT AND WIRELESS CONTROL NETWORK FOR MULTI-TOWER CSP POWER PLANT .................. 396  
Liguo Hu, Caiyong Li

MICRO-GRID REMOTE SERVO SYSTEM BASED ON THE WORLD WIDE WEB ......................................................... 399  
Yizhi Ye, Jiaojiao Liu, Nan Le, Jiale Liu

THE DESIGN OF CHARGING CONTROLLER IN WIND-PHOTOVOLTAIC HYBRID POWER GENERATION SYSTEM ................................................................. 402  
Ting Wang

TIME-FREQUENCY ANALYSIS OF OUTPUT POWER OF WIND TURBINE BASED ON WAVELET TRANSFORM .............. 405  
Hao Guo, Zheng Li

SIMULATION STUDY OF A STAND-ALONE WIND-PUMPED STORAGE SYSTEM ......................................................... 409  
Hao Guo, Zheng Li

TWO NOVEL WAYS FOR LOW VOLTAGE RIDE-THROUGH OF DOUBLE FED INDUCTION GENERATOR ..................... 413  
Peng Zhao, Jing Jia, Ruiqi Wang, Yong Zhang, Qingbo Mao, Shuai Zhao

ONE KIND OF CONTROL METHOD BASED ON PLC OF STEPPER MOTOR .............................................................. 418  
Yujie Chong, Changjie Xu, Haimei Feng, Xin Shi, Jie Li, Chang Du, Juanhong Wang

DESIGN OF THE COLLECTION AND TRANSMISSION SYSTEM OF GPRS WIRELESS INDICATOR DIAGRAM OIL YIELD MEASUREMENT ................................................................. 422  
Ying Zhang

OPTIMIZATION OF FERMENTATION PARAMETERS FOR LACCASE PRODUCTION BY A NOVEL DEUTEROMYCETE FUNGUS MYROTHECIUM VERRUCARIA NF-05 USING RESPONSE SURFACE METHODOLOGY ................................................................. 425  
Dan Zhao, Yanyang Sun, Renpeng Du, Li Zhang, Jingting Ge

PREPARATION OF MICRON-SIZED MONODISPERSE POLY (STYRENE-CO-METHYL METHACRYLATE) MICROSPHERES BY DISPERSION COPOLYMERIZATION ................................................................. 428  
Huichun Chu, Qinmin Pan

WORKING CONDITION DETECTION OF SUCK ROD PUMPING SYSTEM VIA EXTREME LEARNING MACHINE ........ 434  
Qian Gao, Shubo Sun, Jianchao Liu

DESIGN OF MICROCOMPUTER MONITORING SYSTEM FOR TRACK CIRCUIT ......................................................... 438  
Ying Xiao

DYNAMIC CIRCUIT ANALYSIS BASED ON COMPUTER ................................................................................................. 442  
Yuying Liu

OPTIMIZATION OF THE FORCE TRANSMISSION PATH ON THE HIGH-THRUST HYPER-STATIC STRAP-ON LAUNCH VEHICLE ......................................................................................... 446  
Yong Mei, Yongjun Lei, Ningyu Liu, Shaowei Feng

FIELD TEST RESEARCH OF EARTH PRESSURE ON THE GABION RETAINING WALL .............................................. 451  
Jinkui Li, Wenjing Liang, Xianke Wei

THE NONLINEAR DYNAMICS SIMULATION OF DRILL STRING-DRILL BIT-ROCK BASED ON ABAQUS ......................... 454  
Jin Shi, Jianwei Wang, Xianglei Liu

RESEARCH ON PARAMETERS INFLUENCING DYNAMIC CHARACTERISTIC OF ELECTROMAGNETIC ACTUATOR .......... 458  
Yong Shi, Yigao Ni
DESIGN AND RESEARCH OF A NEW TYPE OF HORIZONTAL WAVE FLOW POWER GENERATOR ............................................................................................................................... 463
Wanchao Ren, Wang Wang

SPECIATION OF CR(III) AND CR(VI) IN ENVIRONMENTAL WATER DETERMINED BY SELECTIVE SEPARATION AND PRECONCENTRATION ON THE PBST-RSP............................................................... 466
Zhi-gang Yuan, Wei-nan Wu

ANALYSIS OF GROUND POTENTIAL RISE WITH LIGHTNING STROKE TO LIGHTNING RODS ON FRAME INSIDE SUBSTATION ............................................................... 469
Songping Tang, Xiaobin Wu

FINANCIAL AND OTHER

AN IMPROVED ELECTRE III APPROACH TO THE EVALUATION OF PE TEACHERS ............................................................... 473
Dan Yuan

EXPERIMENTAL STUDY ON BOILING MECHANISM OF LN₂ INJECTION INTO WATER ............................................................... 476
Bin Zhang, Gui-feng Yu, Ling He, Xing Feng

THE ANALYSIS ON THE INFLUENCE MECHANISM OF GUIZHOU’S URBAN-RURAL DIGITAL GAP TO THE URBANIZATION PROCESS AND CITY ECONOMY ............................................................... 480
Bingsheng Guo

ANALYSIS ON METHOD OF PROTECTION AND UTILIZATION FOR THE HISTORICAL BUILDING IN LAOJUN CAVE ............................................................................................................................... 483
Jihong Xiao, Xiangdong Zhu, Chongen Wang

STUDY ON CHARACTERISTICS AND APPLICATION OF MODERN GREEN BUILDING MATERIALS ............................................................................................................................... 486
Fangfang Yang

RESEARCH ON VARIOUS BUILDING MATERIALS FOR STRUCTURAL COMPONENTS ............................................................... 489
Wei Wu

FORMATION OF CREATIVE THINKING OF FUTURE TEACHERS ON PHYSICS BY MEANS OF INFORMATION TECHNOLOGIES ............................................................................................................................... 492
Sherzod Ramankulov, Kamalbek Berkimbaev, Sattarbek Bekbayaev, Umirzak Abdumanapov, Ganiya Ormanova, Aliya Sarybaeva

AN IMPROVED GENETIC ALGORITHM TO THE RELIABILITY OPTIMIZATION OF COMPUTER NETWORKS ............................................................................................................................... 496
Si-Jun Tao

AN IMPROVED COMPLEX SYSTEM OPTIMIZATION METHOD HYBRIDIZED STRUCTURE-BASED NEURAL NETWORKS WITH ORTHOGONAL GENETIC ALGORITHM ............................................................................................................................... 499
Jian Peng

THE ANALYSIS OF STRUCTURAL COMPLEXITY OF PIANO PIECES "DEDICATED TO ALICE." ............................................................................................................................... 503
Junzhong Zhang

APPLICATION OF ROLE-BASED ACCESS CONTROL MODEL IN HIGH-LEVEL ATHLETES MANAGEMENT SYSTEM ............................................................................................................................... 507
Yijun Li

INHERITANCE AND APPLICATIONS OF QU RIVER ARTS IN CULTURE VILLAGE CONSTRUCTION ............................................................................................................................... 510
Haijie Liu

RESEARCH ON DEBUSSY PIANO MUSIC "FIREWORKS" PERFORMANCE ............................................................................................................................... 513
Haijie Liu

MAN IS CONSUBSTANTIAL WITH GOD MORAL REFLECTIONS ON HUMANISM ............................................................................................................................... 516
Haijie Liu

APPLICATION OF ROLE-BASED ACCESS CONTROL MODEL IN HIGH-LEVEL ATHLETES MANAGEMENT SYSTEM ............................................................................................................................... 520
Haijie Liu

INHERITANCE AND APPLICATIONS OF QU RIVER ARTS IN CULTURE VILLAGE CONSTRUCTION ............................................................................................................................... 523
Haijie Liu

RESEARCH ON RISK ASSESSMENT OF CITY NATURAL DISASTER BASED ON NEURAL NETWORK ............................................................................................................................... 526
Haijie Liu

STUDY ON PROGRAMMING OF CNC TURNING AND PROCESSING TECHNIQUES ............................................................................................................................... 529
Haijie Liu

COMPREHENSIVE CONTROL OF HORIZONTAL WELL OF DEEP PROFILE TECHNOLOGY RESEARCH ............................................................................................................................... 532
Haijie Liu
CLINICAL OBSERVATION OF ADRENALINE THROUGH THE SUBCLAVIAN VEIN
Yan Chen

RESEARCH ON MOBILE INFORMATION SERVICE OF LIBRARY
Zuobin Ning

THE RESEARCH PROGRESS OF TRANSFORMING GROWTH FACTOR (TGF - BETA) GENE REGULATION AND INVASION AND METASTASIS OF Pancreatic Cancer
Xiao-jing Gong, Guiqing Yang, Dongming Sun, Lingjin Wan, Yi-shan Wang

RESEARCH ON FARMERS' INCOME STRUCTURE IN HEILONGJIANG PROVINCE
Dehua Zhang, Sha Lou

ANALYSIS ON THE INFLUENCING FACTORS OF FARMERS' INCOME IN HEILONGJIANG
Dehua Zhang

A COMPARATIVE STUDY ON THE INTERFERENCE MICROSCOPY IMAGING AND DIFFRACTION MICROSCOPY IMAGING FOR BIOLOGICAL CELLS
Minjie Liang, Ying Ji, Yuanyuan Xu, Tingting Hua, Yawei Wang

CHINA'S SUSTAINABLE DEVELOPMENT AND UTILIZATION OF WATER RESOURCE CONDITION AND PROTECTION
Rui Zhang, Wenjing Wei

EFFECTS OF ESTROGEN RECEPTOR ALPHA ON VASCULAR SMOOTH MUSCLE CELL SM2
Mengmeng Qiang

ANALYSIS ON HEALTH CARE FUNCTION OF HORTICULTURAL THERAPY
Yulin Liu, Jianjun Liao

A COMPARATIVE STUDY OF PHYSICOCHEMICAL PROPERTIES PREVIOUS AND AFTER REMEDIATION OF CONTAMINATED HIGH-SULFUR SOIL IN HUANJIA
Su-jen Li, Bo Song, Feng-yuan Fu, Yuan-yuan Yu, Dong Liu, Xue-mei Zhong

CASE-CONTROL STUDY ON RELATED FACTORS OF ALZHEIMER'S DISEASE
Zhenghai Sun, Yunfeng Han, Jingwen Meng, Haimin Han, Jianzhong Li

BIOINFORMATICS ANALYSIS OF α-SYNUCLEIN
Dama Wei, Canquan Mao

RESEARCH ON CONSTRUCTION AND EVALUATION SYSTEM OF ECO-CITY——TAKE QINGDAO FOR EXAMPLE
Yujie Ge, Lin Zhao, Yibing Xie, Weilin Huang

THE RESEARCH OF THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL IN TECHNICAL ENTREPRENEURIAL ENTERPRISES AND ITS GROWTH
Yiyang Fan

INTELLIGENT FILTER ATTRACTIONS BASED ON MULTI-OBJECTIVE PROGRAMMING
Fengting Yan, Jinyuan Jia, Kun Wang

FUNCTION KNOWLEDGE RETRIEVAL BASED ON FUNCTIONS KNOWLEDGE ONTOLOGY
Baoxiu Su, Yong Liu

FEATURE EXTRACTION METHOD FOR PREDICTING DEPRESSION BY FREQUENCY DOMAIN ANALYSIS
Eun-Joo Seo, Kwang-Seok Hong

EFFECTS OF SILVER NANOPARTICLES ON SEED GERMINATION AND SEEDLING GROWTH OF RADISH (RAPHANUS SATIVUS L.)
Lifen Wang, Junzhen Zhu, Qiujuan Wu, Yingzhong Huang

A HIGHLY EFFICIENT FAST GLOBAL K-MEANS CLUSTERING ALGORITHM
Xian Liang, Fuheng Qu, Yong Yang, Hua Cai

AN IMPROVED ID3 DECISION TREE ALGORITHM BASED ON ATTRIBUTE WEIGHTED
Xian Liang, Fuheng Qu, Yong Yang, Hua Cai

APPLICATION OF EMPLOYMENT TO COLLEGE STUDENTS BASED ON AHP VIRTUAL PLATFORM
Huazhen Chang

DESIGN AND REALIZATION OF INTELLIGENT EYESHADE BASED ON STC89C58RD+
Xin Li, Wenmian Xiao, Letian Teng

PHYSICAL OBSERVABLE FOR ONE-DIMENSIONAL QUANTUM FOUR-STATE POTTS MODEL
Hong Lei Wang, Long Cong Chen, Bo Liang, Chun Huan Xiang

DELETION OF LACTATE DEHYDROGENASE IN KLEBSIELLA PNEUMONIAE TO ENHANCE 1,3-PROPANEDIOL PRODUCTION
Guangbin Ye, Shanshan Sun, Liting Deng, Jingting Ge, Wenxiang Ping
A COLOR INTERPOLATION METHOD FOR BAYER FILTER ARRAY IMAGES BASED ON DIRECTION FLAG
Zheng Liu, Huachuang Wang .................................................................................................................. 630
GLOBAL MOTION ESTIMATION BASED ON FOURIER MELLIN AND PHASE CORRELATION
Lijun Lai, Zhiyong Xu ................................................................................................................................. 636
PHASE AND MICROSTRUCTURE OF (GD_{1-X}Nd_{X})_{2}Zr_{2}O_{7}(0.25 \leq X \leq 0.35) COMPOUNDS
Yi Xie, Long Fan, Xinxin Lu ........................................................................................................................ 640
STUDY ON COMRESSIVE CREEP BEHAVIOR OF AE42 AND AE41-XCA ALLOYS
Daofen Xu .................................................................................................................................................. 643
DISCUSSION ON TECHNOLOGY AND METHODS OF ANCIENT ARCHITECTURE SURVEYING
Jihong Xiao, Xiangdong Zhu, Chonggen Wang .......................................................................................... 648
FABRICATION AND PERFORMANCES OF MTMS/TMCS BILAYER TRANSPARENT SUPERHYDROPHOBIC SILICA COATING
Jin Wang, Jianjun Chen, Zhipeng Jin, Xiaoli Gu, Ruizhi Zhang, Jing Huang, Guoqiang Luo
PREPARATION AND MECHANICAL PROPERTY OF POLYETHYLENE/RUTILE NANO-TiO_{2} COMPOSITES
Ting Zheng, Li-Li Fan, Tong-Wu Li, Pei-Bang Dai
PREPARATION OF MONODISPERSE HOLLOW CORE POLYMER MICROSPHERES VIA TWO-STEP DISPERSION POLYMERIZATION
Xiaoting Jiang, Shaohui Lin, Garry L. Rempel, Qinmin Pan
GRAPH BASED IMAGE SALIENCY DETECTION
Ye Huang, Jianlin Zhang, Yuxing Wei
ALGORITHM OF IMAGE DEFINITION EVALUATION BASED ON LIFTING SCHEME
Jing Zhang, Ke Chen, Sheng-ping Du, Yi-han Luo
DISTRIBUTED STORAGE OF RDF BASED ON CLUSTERING
Yonglin Leng, Fuyu Lu
MODELLING AND DESIGN OPTIMIZATION OF COANDA-EFFECT APPLICATION ON SURFACE PARTICLE REMOVAL
Bagus BhirawaPutra, He Xu, Xinliang Huang
STUDY ON THE STRUCTURE TRANSITION OF GRAPHITE AND QUARTZ DOPED WITH SILICON UNDER HIGH TEMPERATURE AND HIGH PRESSURE
Dejun Wang, Runru Liu, Leng Jing, Lili Wang, Xinyu Bai
NACl EFFECT ON SOFC CATHODE
Runru Liu, Dejun Wang, Leng Jing, Lili Wang, Xinyu Bai
DESIGN ON GENERATING TEST PAPER BASED ON SIMULATED ANNEALING ALGORITHM
Jun Yang
RESEARCH ON FRAMEWORK STRUCTURE FOR EXAMINATION ACHIEVEMENT MANAGEMENT SYSTEM
Jun Yang ....................................................................................................................................................... 694
EXCELLENT SCHOTTKY CHARACTERISTICS OF INDIUM-TIN-OXIDE CONTACT TO N-TYPE GAN
Kyurin Kim, Younggun Gil, Hyunsuk Kim
INFLUENCES OF RE AND RE-CA MODIFICATION ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF STEEL 35MNSICRMov
Zhenglian Tang, Hongxia Zhang, Jiangang Wu
PHYSICAL EXPERIMENT INFORMATION SYSTEM FOR STUDENTS CLIENT APPLICATION
Xiang Teng
ATHLETIC MEETING GROUPING LANE DIVIDING ALGORITHM AND SYSTEM DESIGN
Jian Pan
CONSTRUCTION OF PUBLIC LEISURE PE WEBSITE BASED ON STRUTS FRAMEWORK
Wenwei Jia, Yuan Gao, Minghai Yao
COMPANY BASED ON FAIRNESS CONCERNS FARMERS TYPE ORDER CONTRACT MECHANISM RESEARCH
Xidong Deng, Wenhao Zou, Jiaqi Yao
THE ANALYSIS OF THE SPA APPAREL COMPANY STRATEGY
Huijuan Du, Yanjun Huang, Yan Liu
FORM BIONIC DESIGN OF THE HIGH-RISE BUILDINGS
Lan Ma
RESEARCH ON THE HISTORICAL SUCCESSION AND SPATIAL DISTRIBUTION PATTERN OF RUBBER PLANTATION IN XISHUANGBANNA BASED ON REMOTE SENSING .............................. 735

Hua Yuan, Cuirong Yue, Yali Song, Wanqiu Zhang

THE APPLICATIONS OF BOT MODE ON THE DEVELOPMENT OF PUBLIC GOLF COURSE IN CHINA ................................................................. 739

Yao Zou, Zhiyong Huang

ANALYSIS OF "MIAO SILVER" MARKET OPPORTUNITIES ........................................... 743

Jingjing Liu

Author Index