Table of Contents

Application Research of Applied Mathematics in the Field of Information Technology	1
Yanhua Fu	
Network Security Situation Evaluation Model Based on User Group Preference	5
Shujian Cai, Lei JIANG	
A Method of Proving P≠NP	9
Chao HAN	
Application of Electrical Automation Technology in Power System	14
Xinxiang Wang	
Replacing the Accumulator in p53a, 53B and 53c with Metal Bellows Accumulator	18
Yu Xing, Tianyi Xing	
Analysis of the Combined Application of Mechanical Design and Manufacturing and Computer-Aided Technology	22
Hubin Wen, Sheng LIAO, Caiyan Zhang	
Network Information Security Protection Technology Based on Big Data Technology	26
Chao WANG, Xiaohu Wang, Jiahan Dong, Guangxin Guo, Tianyu Ren	
Computer Vulnerability Detection and Early Warning Method Based on Data Mining Technology	31
Tianyu Ren, Xiaohu Wang, Jiahan Dong, Guangxin Guo, Chao WANG	
Study on the Location of Six-Span Phase Separation of 27.5kv Flexible Catenary in Subway	36
Jiangwei Duan	
Magnetic Control Reactor Application Effect in Metro Power Supply System Research	41
Zeng Wei	
Online Collaborative Learning Model Design Supported by Big Data Technology	46
Jiayi Zhao, Lizhi Zhao, Runlan Wang, Zhicheng Wei, Rongyan Zhao	
Effective Application of Computer-Aided Translation Software in Medical Literature Translation in the Era of Big Data	50
Hongmei Li	
Research on Computer Aided Vaccine Design in the Field of Biomedical Engineering	54
Haoxiang Zheng, Yuexiang Wang, Jie WANG, Jie JI, Yu FANG	
Application of Bioinformatics in Predicting Protein-Protein Interaction	57
Xiaoyang Han	

Effective Application of Plc Technology in Electrical Engineering Automation Control	61
Jing~SU	
Network Information Security Protection Technology Based on Big Data Technology	65
Wang Chao, Wang Xiao-hu, Dong Jia-han, Guo Guang-xin, Ren Tian-yu	
Research on Mobile Phishing Detection Association Technology Based on Multi-Source Heterogeneous Security Data Fusion	70
Huanxiao Xu, Juan QI, Lanmei Qian, Fang WU, Jingxiong Yan	
Research on the application of statistical learning method in financial data analysis	78
Mingchen Ye	
On the Innovative Practice of Intelligent Manufacturing Technology in Precision Mold Design and Manufacture	82
Hubin Wen	
The application of big data mining technology in network public opinion monitoring	86
Duo LI	
Design and Research of e-Commerce Personalized Recommendation Algorithm	90
Jie Hu	
Application of Big Data Technology in Computer System	94
Guocai Chen	
Application of Machine Learning in Financial Asset Price Prediction and Allocation	100
Xinli Guo	
The Application of Computer Aided Design in the Planning and Design of Landscape Architecture	105
Pengzhan Li	
Design and Development of Automatic Drilling Machine for Cable Reel	111
Hong Weiwei, Ke Liang, Zhou Junshuo	
Lung Tumor Segmentation Algorithm Based on Deep Convolution Neural Network	116
CHEN Shu, JI Jianbing, YANG Yuanyuan	
Anti-Monopoly Regulation of Algorithm Collusion in Big Data Era	124
Jiahuan Yan	
Research on Structural Color Contact Lenses Based on Magnetically Controlled Photonic Crystals	131
Tianxue Xiao	
Job Selection Model Based on Svm and Bpneural Network	138
Sitong Jiang, Jingwen Ding, Yuxi Liu, Qingyi Hu	
Intelligent Identification System for Farming Water Quality Based on Deep Learning	147
Lirong He, Jing Su, Baogui Tang, Hancheng Huang, Liang Zeng, Chuangwei Wen	

Research on Fine Processing of side Scan Sonar Image and Target Recognition Method	152
Yang Cheng	
Reliability Analysis and Optimization of Computer Communication Network Based on Genetic Algorithm	157
Ruiqi Peng, Shaoping Liao, Sirui Liu	
Research on Modulation Recognition Algorithm of Digital Communication Signal	161
Zijian Wang	
Research on Autonomous Driving Algorithm Based on Multi-Agent	166
Yang Cheng	
Research on Communication Signal Modulation Recognition Technology	170
Jingyang Gao	
Research on the Application of Deep Learning Algorithms on Image Classification	174
Zijian Wang	
Research on Indoor Positioning Technology Based on Wlan	178
Jingyang Gao	
Research and Ideas on the Development of Piano Sight-Reading Training Software Based on Lilypond Software and Python Language Application	182
Xiaoxin Yu	
Research on the computer cyber security posture assessment model based on information fusion	186
Xin Ge	
Research on Communication Design of Electronic Control System of New Energy Vehicle Based on Cloud Platform	190
Yanjie Zhao, Jiang Ye	
Research on big data processing based on deep learning to extract social network image information	196
Xiao Wang	
Application and practice of computer information processing technology based on large data	200
Jia Guo	
Application and research progress of environmental mineral materials in soil improvement and soil remediation	206
Longsheng Yu, Ping Chen, Hui Zhang, Min Wang, Sheng Zhou	
Investigation on Microstructure and Fracture Behavior of β-SiC Monofilament	211
Wenxia Zhao, Octav Ciuca, Xiaoguang Yang, Chunhu Tao, Xiaorong Zhou and Changkui Liu	
Research on Facial Expression Recognition Based on Convolutional Neural Network	218

wang xuyang, Chen Jinneng	
Greedy Algorithm-Based Solution to Ship Loading in Knapsack Problem	224
Jia Hu	
Optimal Bus Route Planning for Rail Station Based on Rail Network	230
Chaohui Wang, Shanshan Yu, Juanjuan Kong	
Extensible Spectral Clustering Method For Detecting Overlapping Communities in Large-scale Networks	235
Hong Zhong, Deyong Jiang	
Research on manipulator positioning control system based on RFID Technology	240
Hua Xu, Yongfei Liu, Zhiqiang Qin	
On the development of the aircraft electrical fault diagnosis system	245
Yang Caiyong	