# 2021 2nd International Conference on Electronics, Communications and Information Technology (CECIT 2021)

Sanya, China 27-29 December 2021

Pages 1-643



**IEEE Catalog Number: CFP21BA0-POD** ISBN:

978-1-6654-3758-5

# Copyright © 2021 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP21BA0-POD

 ISBN (Print-On-Demand):
 978-1-6654-3758-5

 ISBN (Online):
 978-1-6654-3757-8

## **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

E-mail: curran@proceedings.com Web: www.proceedings.com



# 2021 2nd International Conference on Electronics, Communications and Information Technology (CECIT) CECIT 2021

# **Table of Contents**

Preface	xxxii
Committees	xxxiii
Reviewers	
Sponsors and Supporters	xxxvi
2021 2nd International Conference on Electronics, Commu and Information Technology	ınications
2-D Molecular Descriptor Screening and Quantitative Structure-Activity Relationsh Modeling for Estrogen Receptors Alpha Bioactivity	ip 3
A Cascade Binary Tagging Joint Extraction Method	8
A Chinese Document-Level Event Extraction Method Based on ERNIE	13

A Ciphertext Updatable Attribute-Based Searchable Encryption Scheme via Blockchain	
A CVSS-Based Vulnerability Assessment Method for Reducing Scoring Error	
A Deepfake Video Detection Method Based on Multi-modal Deep Learning Method	
A DQN-Based Hyperheuristic Algorithm for Emergency Scheduling of Earth Observation	
Satellites	
A Fast Sea-Sky Line Detection Method Based on EDLines	
A Frequency Domain CFAR Detection Algorithm Based on Morphological Filters	
A Heterogeneous Dual-Channel Routing Protocol Based on OLSR for FANETs	
A Hybrid Relation Extraction Model for Knowledge Graph of Heroic Epic "Gesar"	
A Lightweight Secure Mutual Authentication Protocol for IoT Devices	

A Method of Avionics System for Fixed Wing UAV
A Model and Method of Information System Security Risk Assessment Based on MITRE ATT&CK
Tian He (Jiangnan University, China) and Zhihua Li (Jiangnan University, China)
A Modified AODV Routing Protocol Using in WSN Based on Ant Colony Algorithm
A Modified Particle Swarm Optimization for the Applications of Electromagnetic Devices 91 Rehan Ali Khan (Zhejiang University, China), Shiyou Yang, Shah Fahad (Zhejiang University, China), Shafiullah Khan (Islamia College University, Pakistan), and Javed Ali Khan (Department of Software Engineering, University of Science & Technology Bannu, Pakistan)
A Network Selection Optimization Algorithm Based on AHP and TOPSIS in Heterogeneous
Network Environment
A Novel 24 / 15 Pole Bearingless Switched Reluctance Motor and Sensorless Speed Control 101 Shangke Han (Shandong University of Science and Technology, China), Peng Zhuang (Shandong University of Science and Technology, China), Hang Yang (Shandong University of Science and Technology, China), Jiaqing Li (Shandong University of Science and Technology, China), and Ning Han (Shandong University of Science and Technology, China)
A Novel Method for ADC Channel Synchronization in Optical Signal Reception Systems 106 Yongjie Zhao (National University of Defense Technology, China), Sida Li (National University of Defense Technology, China), Longqing Li (National University of Defense Technology, China), and Zhiping Huang (National University of Defense Technology, China)
A Parameter-Adaptive Convolution Neural Network for Capturing the Context-Specific Information in Natural Language Understanding
A Precision Clock Synchronization Method of Satellite Constellation Network Based on IEEE  1588 Protocol

A Protocol Conformance Testing Method Based on the FSM for KMIP	128
Jie Wang (China Aerospace Academy of Systems Science and Engineering, China), Xin Yang (China Aerospace Academy of Systems Science and Engineering, China), Jing Yu (Tsinghua University China), Lu Lu (China Aerospace Academy of Systems Science and Engineering, China), and Dong Guo (China Aerospace Academy of Systems Science and Engineering, China)	
A R-ASK OFDM Modulation and Demodulation Scheme Against Vocoder Compression  Botao Chen (Southeast University, China) and Aiqun Hu (Southeast University, Purple Mountain Laboratories, China)	136
A Reproducing-free Chip Power Supply Fault Monitoring Circuit Design	142
A Smart Metasurface Based on Q-Learning Algorithm	147
A Survey of EEG Analysis Based on Graph Neural Network	151
A Systematic Review of Fuzzy Testing for Information Systems and Applications  Quanjiang Shen (State Grid Shanghai Electric Power Research Institute, China), Mi Wen (Shanghai University of Electric Power, China), Lei Zhang (state Grid Shanghai Electric Power Research Institute, China), Liangliang Wang (Shanghai University of Electric Power, China), Leyan Shen (Shanghai University of Electric Power, China), and Jing Cheng (Shanghai University of Electric Power, China)	156
A Tibetan Error Correction Method Based on Syllable-Based Levenshtein Distance Xiaodong Liu (National University of Defense Technology, China), Jie Yu (National University of Defense Technology, China), Qingbo Wu (National University of Defense Technology, China), Zibo Yi (National University of Defense Technology, China), Long Peng (National University of Defense Technology, China), Jun Ma (National University of Defense Technology, China), Bingshan Chang (Kylin Software Co., Ltd., China), Jianfeng Li (Kylin Software Co., Ltd., China), Min Liu (Kylin Software Co., Ltd., China), Tashi Nyima (Tibet University, China), and Duojie Renzeng (Tibet University, China)	163
Acceptance Testing Optimization Method for Continuous Delivery  Peng Hu (Information Engineering University, China), Chaowen Chang (Information Engineering University, China), Yingying Ma (Information Engineering University, China), and Xiaolin Wang (Jiaxing University, China)	168
Adaptive Clustering Feature Matching Algorithm Based on SIFT and RANSAC	174

Adaptive Filter-Based Approach for PHY Fingerprints Extraction of Fast Ethernet Network Sheng Li (Southeast University, China), Aiqun Hu (Southeast University, China), Jiaqi Liu (Southeast University, China), and Jiabao Yu (Purple Mountain Laboratories for Network and Communication Securiy, China)	. 180
An Adaptive Step Size Stokes Space Method for Polarization Demultiplexing	. 186
An air Filtration Performance Prediction Method of gas Turbine Based on Dynamic Neural Network	. 191
An Approach to Improve Distributed Computing	. 196
An Effective Encrypted Traffic Classification Method Based on Pruning Convolutional Neural Networks for Cloud Platform  Zilong Han (State Grid Shanghai Energy Interconnection Research Institute, China), Erxia Li (State Grid Shanghai Energy Interconnection Research Institute, China), Shichao Li (Key Laboratory of Trustworthy Distributed Computing and Service (BUPT), Ministry of Education, China; Beijing University of Posts and Telecommunications, China), Xiaoyong Li (Key Laboratory of Trustworthy Distributed Computing and Service (BUPT), Ministry of Education, China; Beijing University of Posts and Telecommunications, China), Chaoqun Kang (State Grid Shanghai Energy Interconnection Research Institute, China), Ruiwen Deng (Key Laboratory of Trustworthy Distributed Computing and Service (BUPT), Ministry of Education, China; Beijing University of Posts and Telecommunications, China), and Yali Gao (Key Laboratory of Trustworthy Distributed Computing and Service (BUPT), Ministry of Education, China; Beijing University of Posts and Telecommunications, China)	l 206
An Image Access Control Scheme in the Blockchain Environment Xin Zhou (Beijing University of Posts and Telecommunications, China), Zhaowen Lin (Beijing University of Posts and Telecommunications, China), and Junfei Huang (Beijing University of Posts and Telecommunications, China)	. 212

An Intelligent Selection Method Based On Electronic Component Quality Data System
An PM2.5-Driven Parametric Adaptive ESDD Prediction Model
An Self-Supervised Learning & Self-Attention Based Method for Defects Classification on  PCB Surface Images
An Unsupervised Hybrid Model Based on CNN and ViT for Multimodal Medical Image Fusion 235 Shishuang Yu (Yunnan University, China), Min He (Yunnan University, China), Rencan Nie (Yunnan University, China), Chenchao Wang (Yunnan University, China), and Xue Wang (Yunnan University, China)

Analysis Framework of Pollution Related Factors in Power Grid Based on Aprior Algorithm 241 Guochao Qian (Electric Power Research Institute, Yunnan Power Grid Company ltd, China), Yifan Wang (Electric Power Research Institute, Yunnan Power Grid Company ltd, China), Qingjun Peng (Electric Power Research Institute, Yunnan Power Grid Company ltd, China), Jing Peng (Electric Power Research Institute, Yunnan Power Grid Company ltd, China), Fangrong Zhou (Electric Power Research Institute, Yunnan Power Grid Company ltd, China), Gang Wen (Electric Power Research Institute, Yunnan Power Grid Company ltd, China), Zhidong Li (Beijing Institute of Spacecraft System Engineering, China), and Peng Kong (Beijing Institute of Spacecraft System Engineering, China)	
Analysis Model of Epidemic Speech Based on BiLSTM and MCNN Structure245  ChenChen Gong (Hangzhou Normal University, China) and Ge Yu (Hangzhou  Normal University, China)	
Analysis of Artificial Intelligence Industry Based on Grey Correlation – A Case Study of	
Fianjin	
Answer-Agnostic Question Generation in Privacy Policy Domain using Sequence-to-Sequence and Transformer Models	
Anti-Occlusion and Anti-Deformation Hand Tracking Based on Kernel Correlation Filter 262 Xiaolu Guo (Chang'an University, China), Li'nan Jiao (Chang'an University, China), Youquan Liu (Chang'an University, China), and Xiao Hu (Chang'an University, China)	
Application of Cryptography Based on Elliptic Curves	
Artificial Intelligence Based Architecture and Implementation of Wireless Network	
Aspect Level Sentiment Classification with Multi-scale Information	
Attribute Attack Graph Generation Method Based on Attack Stage	

Automated Detection of COVID-19 with Chest CT Scans using 3D Deep Learning Model 29 Fubao Zhu (Zhengzhou University of Light Industry, China), Zelin Zhu (Zhengzhou University of Light Industry, China), Jinyu Zhao (Zhengzhou University of Light Industry, China), Zequan Zhang (Zhengzhou University of Light Industry, China), Wei Chen (Zhengzhou University of Light Industry, China), and Neng Dai (Zhongshan Hospital, Fudan University, Shanghai Institute of Cardiovascular Diseases, National Clinical Research Center for Interventional Medicine, China)	2
Auxiliary Teaching Design for Knowledge Points Labeling by Education Data Analysis	8
Bi-Directional Joint Embedding of Encyclopedic Knowledge and Original Text for Chinese  Medical Named Entity Recognition	4
Blind Chromatic Dispersion Estimation for Coherent Optical Communication Based on Amplitude Spectrum	0
Blind Equalization Algorithm Based on Brainstorming Algorithm	5
Bridge Relation Extraction: New Chinese Dataset and Model	0
Research on Security Apparel Recognition Technology Based on Multiple Scene Perception 32  Cong Qu (Hainan University, China), Caimao Li (Hainan University,  China), Chengrong Lin (Hainan University, China), and Qiuhong Chen  (Hainan University, China)	6
Capital System vs. Information and Communications Technology: A Perspective of Civilization Development	1
Case Recommendation Algorithm of Discipline Inspection and Supervision Based on Knowledge Graph	
(Inner Mongolia Discipline Inspection and Supervision Big Data Laboratory, China)  Case Study: Predicting Future Forex Prices using MLP and LSTM Models	3
Cellular Automata Based Adaptive Clustering Approach	7

Chaotic Separation Constellation Scrambling Scheme to Enhance the Security of PDM CO-OFDM/OQAM Systems	352
Chinese Knowledge Graph Completion Based on Improved BERT Model  Liu Liu (National University of Defense Technology, China), Hao Tian (Nanjing University of Information Science and Technology, China), Xiaoxiong Zhang (National University of Defense Technology, China), Shanshan Liu (National University of Defense Technology, China), and QinQin Yang (Nanjing University of Information Science and Technology, China)	357
Chinese Opinion Target Extraction Based on MRC Framework  Zhenghan Li (Communication University of China, China), Nanchang Cheng (Communication University of China, China), Ming Yan (Communication University of China, China), and Wenchao Song (Communication University of China, China)	362
Chinese Text Classification Based on ERNIE-RNN	368
Chromatic Dispersion Monitoring for Long Haul 28 GBaud PDM-QPSK Optical Signal Based CNN  Shen Fangqi (National University of Defense Technology, China), Li Longqing (National University of Defense Technology, China), Li Sida (National University of Defense Technology, China), Zhao Yongjie (National University of Defense Technology, China), Wu Zicheng (National University of Defense Technology, China), Huang Zhiping (National University of Defense Technology, China), and Zhou Jing (National University of Defense Technology, China)	on 373
Civil Aviation Data Monitoring System Based on Encryptable Consortium Blockchain	378
Clock Domain Crossing Verification Challenges	383

Coherent Signals Adaptive Beamforming Algorithm Based on Eigenvalue	188
Colloidal PbS QDs Heterostructure Photodete Ctor Based on High-Quality Graphene	94
Combining Minimal Surface Model with DGCNN for Natural Language Understanding 3 Mingkai Zha (University of Electronic Science and Technology of China, China), Gongqi Lin (University of Electronic Science and Technology of China, China), Hongguang Fu (University of Electronic Science and Technology of China, China), Yunhao Liu (Chengdu Institute of Computer Application, Chinese Academy of Sciences, China), and Lei Huang (University of Electronic Science and Technology of China, China)	99
Contrastive Visual Representation Learning Enhanced with Knowledge Embedding for Reinforcement Learning	107
Coverless Steganography Method Based on the Source XML File Organization of OOXML	
Documents	:13
CPKD: Concepts-Prober-Guided Knowledge Distillation for Fine-Grained CNN Explanation 4 Lei Chen (Nankai University, China), Yu Qiu (Nankai University, China), Junan Zhao (Nankai University, China), Jing Xu (Nankai University, China), and Ao Liu (Nankai University, China)	:21
Deep Reinforcement Learning-Based Vaccine Distribution Strategies	:27
Design and Implementation of an Experimental Platform for Online Monitoring of Mine Water Based on the Internet of Things	:37

Design and Implementation of an Intelligent Classification and Reliability Prediction Tool  Based on Cloud Platform
Jieyu Chen (Key Laboratory of Industrial Equipment Quality Big Data, The 5th Electronics Research Institute, MIIT, China), Qiuxiang Wang (Key Laboratory of Industrial Equipment Quality Big Data, The 5th Electronics Research Institute, MIIT, China), Yadong Ling (Key Laboratory of Industrial Equipment Quality Big Data, The 5th Electronics Research Institute, MIIT, China), Shizhang Liang (Key Laboratory of Industrial Equipment Quality Big Data, The 5th Electronics Research Institute, MIIT, China), and Meixian Li (Key Laboratory of Industrial Equipment Quality Big Data, The 5th Electronics Research Institute, MIIT, China)
Design and Research of Low Noise Receiving System with Hybrid Antenna
Design of Low Profile High Gain Antenna Loaded with Artificial Magnetic Conductor 452 Zhao Jin (Chang'an University, China), Lu Li (Chang'an University, China), Xuan Zhang (Chang'an University, China), and Luowen Qin (Chang'an University, China)
Design of Low-Power Video Acquisition and Display System Based on ZYNQ
Design of Maritime Unmanned Detection System Based on Multi-mode Communication 464 Shuiliu Fang (Yunnan Normal University, China), Ruiting Hao (Yunnan Normal University, China), Longgang Zhang (Yunnan Normal University, China), Jihui Peng (Yunnan Normal University, China), Jinheng Yu (Yunnan Normal University, China), and Changming Pan (Yunnan Normal University, China)
Design of Scintillation Counter Circuit Based on STM32 Counting 472 Yuping Jiang (Fujian Normal University, China), Wenzao Shi (Fujian Normal University, China), Yuan Situ (Computer and Information Engineering, Guangzhou Huali College, China), and Ge Gao (Tianjin University of Science and Technology, China)
Design of Test Instrument for Executing Components in a Certain Aircraft Weapon Control  System
Design of Ultrasonic Range Finder Based on STM32 Single Chip Computer
Design of Vehicle Intelligent Distributor Based on Solid-State Power Distribution

Designing Evaluation Indices for Joint Operation Systems Base on Random Forest with  Generalized Linear Regression Algorithm
Development and Validation of a new Sampling Method to Eliminate Septal Artifacts to Improve the Accuracy of Quantitative Analysis
Development of PCB Board Coding Equipment Based on New Digital Signing Technology 504 Xiaochen Liu (Nanjing University of Science and Technology & Beijing Hangxing Machinery Co., Ltd, China), Kai Wu (Beijing Hangxing Machinery Co., Ltd, China), Song Zhou (Beijing Hangxing Machinery Co., Ltd, China), Chao Wang (Beijing Hangxing Machinery Co., Ltd, China), and Kai Wu (Nanjing University of Science and Technology, China)
Discussion on Operational Reliability Test Scheme and Evaluation Method of Underwater Complex System
Disruptive Information on Social Media: A Perspective of Information and Communications  Technology Processing
Diversity Enhanced Image Captioning with Adversarial Learning

Domain Adversarial Entity Alignment Model Between Knowledge Graphs	25
Eco-Driving Speed Optimization Model of Urban Intelligent Connected Vehicle Platoon  Considering Driver's Comfort Level	32
Efficient Dynamic Spectrum Sharing for LTE-NR Networks	38
Efficient Hardware Implementation of Error Correcting Codes Classification Algorithm 5 Sida Li (National University of Defense Technology, China), Fangqi Shen (National University of Defense Technology, China), Yongjie Zhao (National University of Defense Technology, China), and Zhiping Huang (National University of Defense Technology, China)	44
Employing Gated Mechanism to Incorporate Symbolic Features into Chinese Event Coreference Resolution	549
Enhanced Wafer Level Variability Improvement by Customized Wafer dose Patterning by Shot in DRAM	55
Estimating the Number of Communities in Complex Network	60
Explicitly Represent the Boundary of ReLU NN as a Classifier and Measure Its Robustness 5  Yangyi Hu (National University of Defense Technology, China)	65
Factoring Gaussian Integers: A Quantum Algorithm	77
Distributed Communication of Inter-Satellite Link Based on Time Reversal Method	82

FasterBERT with Double Loss Function Based on Batch Data Preprocessing	588
~	594
Boyang Yu (Jilin University, China), Zhaonian Cai (Jilin University, China), and Jingbo He (Jilin University, China)	
Fine-grained Fashion Clothing Image Classification and Recommendation  Amitha Nayak (PES University, India), Jigya Shah (PES University,  India), Ayush Kuruvilla (PES University, India), Akshaya J (PES  University, India), and Sandesh B J (PES University, India)	600
FlexIPS: A Keep Tracking Scalable Network Function Design and Implementation	607
Further Improvement of NR RRC Inactive for Small Data Transmission	614
Game Model in Multi-target Jamming Task Allocation	620
Generating Emotional Coherence and Diverse Responses in a Multimodal Dialogue System Yunfei Huang (Beijing Institute of Technology, China), Kan Li (Beijing Institute of Technology, China), Zhuo Chen (Nanjing Three-eye Spirit Information Technology Co., Ltd, China), and Lipeng Wang (Nanjing Three-eye Spirit Information Technology Co., Ltd, China)	625
GLRT for Adaptive Array Signal Detection in the Presence of Spatial Steering Vector Uncertainties	631
Dian Jin (University of Science and Technology of China, China) and Jun Liu (University of Science and Technology of China, China)	001
Hardware Acceleration Scheme of Compressed Position Report Based on FPGA  Jiaming Chen (University of Electronic Science and Technology of China, China), Li Li (University of Electronic Science and Technology of China, China), Sheng Tao (University of Electronic Science and Technology of China, China), Yao Chen (University of Electronic Science and Technology of China, China), Haoxi Yang (University of Electronic Science and Technology of China, China), and Qifan Su (University of Electronic Science and Technology of China, China)	636
Homomorphic Proxy Re-Signcryption Scheme and Its Application in Edge Computing-Enhance IoT	

Improvement of Output Voltage Quality of Power Conversion System Based on Specific Harmonic Elimination
Improving Discriminative Entity Retriever with Generative Tasks
Improving Performance of Log Anomaly Detection with Semantic and Time Features Based on BiLSTM-Attention
Indoor Elderly Fall Recognition System Based on Target Detection and Self-Attention Model 667 Min Liu (Tianhua College, Shanghai Normal University, China), Xufeng Ling (Tianhua College, Shanghai Normal University, China), and Jie Yang (Shanghai Jiaotong University, China)
Influence of Migration Sites on Electronic Structure of N, O, P and S Doped Graphene Nano-Flake Systems
Information Hiding Algorithm Based on Depth Projection of 3D Model
Innovative Teaching Combined with 3D Printing Teaching Aids and OBE Teaching Philosophy 687  Bin Ren (Chengdu Medical College, Big health and Intelligent Engineering academy, China), Kang Li Lei (Chengdu Medical College, Big health and Intelligent Engineering academy, China), and Ting Zhang (Chengdu Medical College, Big health and Intelligent Engineering academy, China)

Hongqi Yang (China Electronic Product Reliability and Environmental Testing Research Institute (CEPREI) ;Key Laboratory of Industrial	
resting Research institute (CLFRL1), Rey Laboratory of Industrial	
Equipment Quality Big Data, MIIT, China), Bin Diao (China Electronic	
Product Reliability and Environmental Testing Research Institute	
(CEPREI); Key Laboratory of Industrial Equipment Quality Big Data,	
MIIT, China), Lihao Yang (China Electronic Product Reliability and	
Environmental Testing Research Institute (CEPREI) 2; Key Laboratory of	
Industrial Equipment Quality Big Data, MIIT, China), Guojian Nie	
(China Electronic Product Reliability and Environmental Testing	
Research Institute (CEPREI) ;Key Laboratory of Industrial Equipment	
Quality Big Data, MIIT, China), Yong Pan (China Electronic Product	
Reliability and Environmental Testing Research Institute (CEPREI) ;Key	
Laboratory of Industrial Equipment Quality Big Data, MIIT, China),	
Xiangwei Wu (China Electronic Product Reliability and Environmental	
Testing Research Institute (CEPREI) ;Key Laboratory of Industrial	
Equipment Quality Big Data, MIIT, China), and Yujie Liu (China	
Electronic Product Reliability and Environmental Testing Research	
Institute (CEPREI) ;Key Laboratory of Industrial Equipment Quality Big	
Data, MIIT, China)	
Integrated Reliability and Performance Design Method of Hybrid Systems	699
Xiao-xi Liu (CEPREI; National Joint Engineering Research Center of	
Reliability Test and Analysis for Electronic Information Products;	
Guangdong Provincial Key Laboratory of Electronics Information	
Products Reliability Technology), Xiao-ping Zhu (Beijing Aviation	
Engineering Technology Research Center), Dou-hui Wang (CEPREI;	
National Joint Engineering Research Center of Reliability Test and	
Analysis for Electronic Information Products; Guangdong Provincial Key	
Laboratory of Electronics Information Products Reliability	
Technology), Jin Li (CEPREI; National Joint Engineering Research	
Center of Reliability Test and Analysis for Electronic Information	
Products; Guangdong Provincial Key Laboratory of Electronics	
Information Products Reliability Technology), and Zi-gang Cai (CEPREI;	
National Joint Engineering Research Center of Reliability Test and	
Analysis for Electronic Information Products; Guangdong Provincial Key	
Laboratory of Electronics Information Products Reliability Technology)	
Intelligent Diagnosis of Pipeline Defects Based on Extreme Learning Machine	704
Jingyi Xiong (College of Safety and Ocean Engineering, China	
University of Petroleum (Beijing), China), Wei Liang (College of	
Safety and Ocean Engineering, China University of Petroleum (Beijing),	
China), Yu Ding (Jiangsu Xukuang Energy CO.LTD, China), and Junming	
Yao (College of Safety and Ocean Engineering, China University of	
Petroleum (Beijing), China)	
, ,	- 700
Journal Profile Based on Feature Words Extracting and Feature Co-Occurrence Analyzin	g 709
Xiang Li (McGill University, Canada)	
Knowledge map Reasoning Algorithm Based on Weight	714
Tianbao Sun (Beijing University of Posts and Telecommunications,	
China) and Jianfeng Li (Beijing University of Posts and	
, juniperty of League of Leave with	

k-Space Based Reconstruction Method for Wave Encoded bSSFP Sequence  Che Wang (Chongqing University of Technology, China), Sen Jia (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China), Zhonghong Yan (Chongqing University of Technology, China), Yuxin Yang (Chongqing University of Technology, China), Shaonan Liu (Inner Mongolia University. Inner Mongolia, China), Haifeng Wang (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China), Dong Liang (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China), and Yanjie Zhu (Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China)	. 720
LDA-LPA: A Community Detection Method Based on Topic Model	. 726
Lung Nodule Detection Method Based on Improved YOLOv4  Zhongqiu Zhang (Shandong University of Science and Technology, China),  Min Li (Shandong University of Science and Technology, China), and  Shoushan Liu (Shandong University of Science and Technology, China)	. 732
Medical Consultation System Based on Python Web Crawler	. 737
MMC Equivalent Modeling Method of AC/DC Hybrid System Based on Model-Data Hybrid D	
Jingsen Zhou (Chongqing Electric Power Research Institute, State Grid Cooperation of China, China), Yongtao Chen (Chongqing Electric Power Research Institute, State Grid Cooperation of China, China), and Li Ran (Chongqing University, China)	.742
Mobile Intelligent Terminal Privacy Continuous Protection System Based on Usage Habits Yunhan Yang (Harbin Institute of Technology, China), Hengji Dong (Harbin Institute of Technology, China), Xiongtao Wu (Harbin Institute of Technology, China), Tianxing Guo (Harbin Institute of Technology, China), Xue Zhang (China Mobile Communications Group Co., Ltd., China), and Mingfeng Li (Harbin Institute of Technology, China)	. 749
Modeling Semantic Inspired by Quantum Composite System	. 755
Multiple UAVs Forest Fire Fighting using a Hierarchical Task Planning Method	760
Multi-sensor Image Fusion Based on low-rank Feature and Joint Convolutional Dictionary Minghui Wu (Wuhan University, China) and Yongming Gao (Institute of Space Intelligent Application Technology, Tsinghua Innovation Center, China)	, 766
Multi-user Computation Offloading Algorithm for Mobile Edge Computing	. 771

Numerical Simulation of Car-Following Model Considering Multiple-Velocity Difference and	77
Changes with Memory	1
University, China), Zijun Liu (Chang'an University, China), Zhewei	
Dong (Chang'an University, China), and Si Wei (Chang'an University,	
China)	
One-Class Temporal Graph Attention Neural Network for Dynamic Graph Anomaly Detection $\dots$ 783	
Bin Huang (Shanghai Jiao Tong University, China), Xuhong Wang	
(Shanghai Jiao Tong University, China), Ping Cui (Shanghai Jiao Tong	
University, China), Wenjian Jiang (Shanghai Jiao Tong University,	
China), Yupu Yang (Shanghai Jiao Tong University, China), and Qifu Fan	
(Shanghai Jiao Tong University, China)	
Opinion Analysis and Emotion Prediction Based on Review Mining of New Energy Vehicle Industry	1
Industry	'1
University of Technology, China)	
Optimal Design of SD Card Storage Performance Based on MCU	)7
JunHui Lu (Institute of Intelligent Manufacturing, Jianghan	
University, China), XiaoFei Yu (Institute of Intelligent	
Manufacturing, Jianghan University, China), MingQiao Zheng (Institute	
of Intelligent Manufacturing, Jianghan University, China), and LiJuan	
Shi (Institute of Intelligent Manufacturing, Jianghan University,	
China)	
Outlook and Direction of AI Tour Guide Services $-$ From the Lifelong Machine Learning View $$ 802	
Shuai Wang (Universiti Sains Malaysia, Malaysia), Xianbin Hong (Xi'an	
Jiaotong-Liverpool University, China; The University of Liverpool,	
UK), Noorliza Karia (Universiti Sains Malaysia, Malaysia), Sheng-Uei	
Guan (Xi'an Jiaotong-Liverpool University, China; The University of	
Liverpool, UK), Prudence W.H. Wong (The University of Liverpool, UK),	
Ka Lok Man (Xi'an Jiaotong-Liverpool University, China; The University	
of Liverpool, UK), and Dawei Liu (De Montfort University, Gateway House)	
	יי דיו
Patient Similarity Measuring with Graph Embedded Learning and Triplet Network	,,
University, China), and Yifan Wang (Donghua University, China)	
PCRLB for Multiple Target Tracking Based on Symmetric Measurement Equation with Pd<1 81	4
Wen-qiang Ye (63768 Unit of PLA, China), Hong-xiao Song (63768 Unit of	
PLA, China), Peng Liu (63768 Unit of PLA, China), Chen-jing Li (63768	
Unit of PLA, China), and Yu Zhong (93574 Unit of PLA, China)	
Performance Analysis of Diversity Combining Techniques over Nakagami-m Fading Channels 820	
Su-Tzu Hsieh (Sanda University), Chin-Ta Chen (Zhaoqing University),	
and Xiao-Qiu Wang (Zhaoqing University)	
Performance Comparison of ECDH and ECDSA	25
Martin Koppl (Ślovak University of Technology, Slovakia), Dmytro	
Siroshtan (Slovak University of Technology, Slovakia), Milos Orgon	
(Slovak University of Technology, Slovakia), Stefan Pocarovsky (Slovak	
University of Technology, Slovakia), Antonin Bohacik (Brno University	
of Technology, Czech Republic), Karel Kuchar (Brno University of	
Technology, Czech Republic), and Eva Holasova (Brno University of	
Technology, Czech Republic)	

Performance Evaluation for Smart Electricity Meters using Machine Learning
Position Control of XY Precision Planar Motion Table Based on Input Shaping Filter
Precise and Scalable Evaluation on the Robustness Metric of Neural Networks as Classifiers 840 Yangyi Hu (National University of Defense Technology, China)
Privacy-Preserving Hamming Distance Protocol and Its Applications
Probabilistic Dialogue Model Combined with VAE For Task-Oriented Dialogue System 854 Xulei Xing (Beijing University of Posts and Telecommunications, China) and Zelong Wang (Beijing University of Posts and Telecommunications, China)
QINR: A Quantum-Inspired Network for Interpretable Review-Based Recommendation
QoE Assessment of Angle Perception with Haptics for Networked Virtual Environments 867 Ma Jianlin (Nagoya Institute of Technology, Japan), Yutaka Ishibashi (Nagoya Institute of Technology, Japan), Pingguo Huang (Gifu Shotoku Gakuen University, Japan), Yuichiro Tateiwa (Nagoya Institute of Technology, Japan), and Kostas E. Psannis (University of Macedonia, Greece)
READ-CSRL: Relation Entities Augmented Datasets for Conversational Semantic Role Labeling 873  Yinyan Wu (Sun Yat-sen University, China), Chenhao Jin (Sun Yat-sen
University, China), and Congduan Li (Sun Yat-sen University, China)  Reading Method of Physical Characteristic Data of RFID Radio Frequency for Wireless
Perception

Real-Time Transmission and Configuration Strategy of Measurement Data Based on Newton's Law of Cooling
Recognizing Sentences Concerning Research Methods of Citation from the Full Text of JASIST. 889 Bin Tang (Nanjing University of Science and Technology, China), Si Shen (Nanjing University of Science and Technology Nanjing, China), and Dongbo Wang (Nanjing Agricultural University, China)
Reliability Evaluation of Distribution Grid Considering Flexible Grid Connection of Distributed Photovoltaic
Reliability Simulation Technology Research and Interface Development Based on Multiphysics Coupling and Physics of Failure
Remote Sensing Images Object Detection Based on Channel Aware Attention Networks 906 Shuanghui Ding (Chang'an University, China)
Research and Application of Corporate Sustainable Value Assessment Based on Discounted Cash Flow Method and MCDM Method
Research and Realization of Radar Active Masking Jamming Technology
Research on Application of Data Compression in Signal Correlation Processing
Research on Automatic Generation Method of Innovative Enterprise Evaluation Text
Research on Bus Passenger Flow Statistics Based on Video Images

Research on Classification of Kazakh Questions Integrate with Multi-feature Embedding 943 Gulizada Haisa (Xinjiang University; The Base of Kazakh and Kirghiz Language of National Language Resource Monitoring and Research Center on Minority Languages; Xinjiang Laboratory of Multi-language Information Technology, P.R.China), Gulila Altenbek (Xinjiang University; The Base of Kazakh and Kirghiz Language of National Language Resource Monitoring and Research Center on Minority Languages; Xinjiang Laboratory of Multi-language Information Technology, P.R.China), Hayinaer Aierzhati (University of Science and Technology of China, P.R. China), and Kaden Kenzhekhan (Almaty University of Power Engineering and Telecommunications, Kazakhstan)
Research on Construction and Application Methods of Semantic Library in the Field of Quality and Reliability
Research on Data Link State Awareness Based on Buried Point
Research on Intelligent Inspection Technology Based on Active Collaboration of Intelligent Sensors
Research on Keypoint-Based Object Detection
Research on Kill Chain Analysis Method Based on Template-Bayesian Network
Research on Link Load-Balancing Between Marine LEO Satellite Constellations Based on SDN 977  Peng Liu (China Ship Research and Development Academy, China), Jun Liang (China Ship Research and Development Academy, China), Xinghua Qian (China Ship Research and Development Academy, China), and Yijiang Xu (China Ship Research and Development Academy, China)

Research on Metaverse: Concept, Development and Standard System
Research on Military Internet of Things Technology Application in the Context of National Security
Research on MIMO-SAR Imaging Based on Millimeter Wave Integrated System
Research on Modeling Method of System Reliability Digital Twin
Research on Network Security Situation Prediction Based on Improved and Optimized BP Neural Network
Research on New Energy Vehicle Sales Forecast and Product Optimization Based on Data Mining
Research on Optimal Scheduling Problem of Mine Water Based on Swarm Intelligence

Research on Performance Prediction of gas Turbine air Filtration System Based on Transformation-Gated LSTM Method
Jiachi Yao (Tsinghua University, China), Chao Liu (Tsinghua University, China), Jiangang Hao (HuaDian Electric Power Research Institute Co., Ltd., China), Haizhou Huang (HuaDian Electric Power
Research Institute Co., Ltd., China), Gaofeng Deng (State Key Laboratory of Building Safety and Environment, China Academy of Building Research, China), and Dongxiang Jiang (Tsinghua University, China)
Research on Prediction of Link Embedding in Maritime Knowledge Graph
Research on Reliability Optimization Design for Airborne Fire-Detecting System
Research on Speaker Identification Models Based on CNN and Additive Angular Margin Loss  1046  Xuan Xi (Chinese Fashion Science & Technology Research Institute, Beijing Institute of Fashion Technology, China), Runping Han (Chinese Fashion Science & Technology Research Institute, Beijing Institute of Fashion Technology, China), and Baiyong Ding (Chinese Fashion Science & Technology Research Institute, Beijing Institute of Fashion Technology, China)
Research on the Application of Health Detection Technology in Intelligent Elderly Care 1051  Jinhuang Lin (Xiamen University of Technology, China), Ronghui Liu (Xiamen University of Technology, China), Qingquan Jiang (Xiamen  University of Technology, China), and Honggang Huang (Xiamen  University of Technology, China)
Research on the Construction Method of Zhuang Word Embedding Evaluation Set
Research on the Current Situation of new Digital Infrastructure Construction in Shandong Province
Research on the Development Mode of Fashion Select Shop Under the new Retail Format: Take LABELHOOD as an Example

Model	075
Bing Li (University of Electronic Science and Technology of China) and Yuanhao Huang (University of Electronic Science and Technology of China)	.07
Research on the Structure of Heterogeneous Combat Network Based on Improved Hete_M Community Detection Algorithm	1080
Liang Guo (College of Information and Communication, National University of Defense Technology, China), Yunjun Lu (College of Information and Communication, National University of Defense Technology, China), Kebin Chen (College of Information and Communication, National University of Defense Technology, China), Lvjun Zhao (College of Information and Communication, National University of Defense Technology, China), and Qichao Peng (College of Information and Communication, National University of Defense Technology, China)	.000
Research on Two-Dimensional Sum-Difference Network of Phased Array Antenna	.085
Research on Visualization of Cable Laying Process of 3D Digital Platform  Pingping Bai (Economic and Technological Research Institute, State Grid Henan Electric Power Company, China), Chen Chen (Economic and Technological Research Institute, State Grid Henan Electric Power Company, China), Pingxian Dong (Economic and Technological Research Institute, State Grid Henan Electric Power Company, China), Xiaofan Song (Economic and Technological Research Institute, State Grid Henan Electric Power Company, China), Fang Guo (Economic and Technological Research Institute, State Grid Henan Electric Power Company, China), Yanzhou Li (Chongqing University, China), and Qi Li (Chongqing University, China)	.092
Resource Allocation Based on IMPALA Algorithm	.101
SAR Repeater Jamming Detection Method Based on Circle Frequency Filter	.108
Scorpio: an Automated Penetration Testing Tool and Its Integration with a Cyber Range 1 Wenqiang Pan (China Academy of Engineering Physics, China), Xihua Liu (China Academy of Engineering Physics, China), Jun Han (China Academy of Engineering Physics, China), Wenqi Zheng (China Academy of Engineering Physics, China), and MingYong Yin (China Academy of Engineering Physics, China)	.113

Security Classification of Bank Data Based on NLP
Security Modules for Securing Industrial Networks
Semantic Similarity Calculation Based on Adaptive Semi-Supervised Method
SETOKEN: A Secure Protection Mechanism Based on Service API for 5G Network Access Token . 1139  Yiming Zhang (National Digital Switching System Engineering and Technological Research Center, China), Caixia Liu (National Digital Switching System Engineering and Technological Research Center, China), Shuxin Liu (National Digital Switching System Engineering and Technological Research Center, China), and Fei Pan (National Digital Switching System Engineering and Technological Research Center, China)
Source Code Vulnerability Detection Based on SAR-GIN
Spatial-Temporal Graph Convolutional Networks for Action Recognition with Adjacency Matrix Generation Network
Speed and Quality of Optimization Algorithms
SSA-CFS:An Effective Feature Selection Method for Intrusion Detection System
Stackless KD-Tree Traversal For Ray Tracing
Station Distribution Optimization Algorithm of TDOA Passive Location Based on Adaptive Matching Reconnaissance Area

The Research of Text Retrieval Based on DeepCT and Conv-KNRM
The Use of Cloud Firestore for Handling Real-time Data Updates: An Empirical Study of Gamified Online Quiz
Yuda Sukmana (Bandung Institute of Technology, Indonesia) and Yusep Rosmansyah (Bandung Institute of Technology, Indonesia)
Threat Intelligence Disclosure Trend Analysis Model Based on Time Series
TPSO Based Multi-parameter ADC Background Calibration Algorithm
Trajectory Optimization of Interceptor Missile Based on Hybrid Genetic Algorithm
Urban Road Checkpoints Traffic Flow Prediction Model of Hyper-Parameter Based on PSO Optimization LSTM
Using Occupant's Data for Electricity Load Prediction Based on Machine Learning
Visualized Intelligent Management and Control Platform for Distribution Network
Vulnerability Assessment Based on Fuzzy Bayesian Network
Weighted Mapping of Contaminated Areas Based on Satellite