2023 International Conference on Advances in Electrical Engineering and Computer Applications (AEECA 2023)

Dalian, China 18-19 August 2023

Pages 1-467



IEEE Catalog Number:

CFP23W83-POD 979-8-3503-0809-9

Copyright © 2023 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:
 CFP23W83-POD

 ISBN (Print-On-Demand):
 979-8-3503-0809-9

 ISBN (Online):
 979-8-3503-0808-2

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



2023 International Conference on Advances in Electrical Engineering and Computer Applications (AEECA)

AEECA 2023

Table of Contents

Message from General Chairs	xxv
Message from Program Chairs	xxvi
Organizing Committee	xxvii
Program Committee	
Reviewers	xxx
Sponsors	xxxv
Electrical Engineering	
Research and Application of the Primary Harmonic Eliminator for the Thermal Resistor Ying Wei (Power Research Institute of State Grid Ningxia Power Co., China), Bo Niu (Power Research Institute of State Grid Ningxia Power Co., China), and Xiaokang Wang (Wuzhong Power Company of State Grid Ningxia Power Co., China)	e 1
Research on Fault Line Selection Algorithm for Economic Operation of Power Grids Ba Improved Variational Modal Decomposition	
Research on the Detection Method of Core and Grounding Fault of Secondary Cable Bathe Principle of Cable Distribution Capacitor Wenxin Guo (State Grid Jiangxi Electric Power Co., Ltd, China), Liang Ouyang (State Grid Jiangxi Electric Power Co., Ltd, China), Xiaofan Xie (State Grid Jiangxi Electric Power Co., Ltd, China), Xianze Liao (State Grid Jiangxi Electric Power Co., Ltd, China), Zuocai Huang (State Grid Jiangxi Electric Power Co., Ltd, China), and Huabo Chen (State Grid Jiangxi Electric Power Co., Ltd, China)	

An ESRGAN-Based Nest Detection Method for Transmission Lines Gang Cao (Meishan power supply company of State Grid Sichuan Electric Power Company, China), Yong Liu (Meishan power supply company of State Grid Sichuan Electric Power Company, China), Zhi Fan (Meishan power supply company of State Grid Sichuan Electric Power Company, China), Liang Chen (Meishan power supply company of State Grid Sichuan Electric Power Company, China), Hao Mei (Meishan power supply company of State Grid Sichuan Electric Power Company, China), Shaochuan Zhang (Meishan power supply company of State Grid Sichuan Electric Power Company, China), and Junyu Wang (Meishan power supply company of State Grid Sichuan Electric Power Company, China)	1 <i>7</i>
Design of Automobile Turn Light Control System Based on MCU	23
Dynamic Load Balancing Technology Based on Pre-Allocation Applied in Power IoT Scenario 2 Dianjun Yu (NARI Group Corporation (State Grid Electric Power Research Institute), China), Jixin Hou (NARI Group Corporation (State Grid Electric Power Research Institute), China), Qing Liu (NARI Group Corporation (State Grid Electric Power Research Institute), China), Chen Liu (NARI Group Corporation (State Grid Electric Power Research Institute), China), Zidong Wu (NARI Group Corporation (State Grid Electric Power Research Institute), China), and Ying Fan (NARI Group Corporation (State Grid Electric Power Research Institute), China)	29
An Implementation of Power IoT Time Series Data Based on InfluxDB	34
Small Signal Stability Assessment and Preventive Control of Power System Based on Support Vector Regression	40
Research on Multi-Level Coordinated Voltage Control Strategy for Distribution Network Voltage	46
The Research of Boost Converter Based on Switching-Inductors for Smart Campus	54

Genetic Algorithm Distribution Automation Power Line Carrier Communication Networking Method Research
Dali Yang (Wuhan Railway Vocational College of Technology, China) Regional Integrated Energy System Control Strategy Considering Orderly Charging and
Discharging of Electric Vehicles
Capacity Determination Method for Energy Storage Plants in Grid-Connected Microgrid 71 Yingfeng Huang (State Grid Fujian Electric Power Company, China), Yubo Sun (State Grid Fujian Electric Power Company, China), and Hao Liu (North China Electric Power University, China)
An Optimization Method for Short Utterances Speaker Verification Based on Seq2Seq
Design and Application of Integrated Intelligent Error Prevention System Based on Micro-Power Wireless Network Substation Based on the Internet of Things
A New Distributed Power Supply for Distribution Network Considering SOP Access
Time Series-Based Text Sentiment Evolution Model
Self-Organizing Network of Self-Energy Sensors for Transmission Line Status Monitoring 99 Bo Feng (Electric Power Research Institute of Guangxi Power Grid Co., Ltd., China), Wei Zhang (Electric Power Research Institute of Guangxi Power Grid Co., Ltd., China), Xiaofei Xia (Electric Power Research Institute of Guangxi Power Grid Co., Ltd., China), Jie Tang (Electric Power Research Institute of Guangxi Power Grid Co., Ltd., China), and Peng Liu (Guagnxi Power Grid Co., China)
Research on Cloud Edge Interaction Technology for Power IoT Based on HTTP and CoAP Protocol
Yu Yan (NARI Group Corporation (State Grid Electric Power Research Institute), China), Qing Liu (NARI Group Corporation (State Grid Electric Power Research Institute), China), Jie Meng (NARI Group Corporation (State Grid Electric Power Research Institute), China), Zhu Qiao (NARI Group Corporation (State Grid Electric Power Research Institute), China), Jinxin Hou (NARI Group Corporation (State Grid Electric Power Research Institute), China), and Haoqi Zhang (NARI Group Corporation (State Grid Electric Power Research Institute), China)

Organic DN11 Thin-Film Effects on Hysteresis of Transfer Characteristics in Field-Effect Transistor	.3
Haiting Wang (Qingdao University of Science and Technology, China), Zipeng Xu (Qingdao University of Science and Technology, China), Cuizhu Mao (Qingdao University of Science and Technology, China), Qian Ding (Qingdao University of Science and Technology, China), and Yuhang Pan (Qingdao University of Science and Technology, China)	
Control System for Energy Storage System Based on Total Energy-Transform	7
Artificial Intelligence Patrol Technology for Unmanned Aerial Vehicles (UAVs) on the Whole Tower and Line Based on Neural Network	:3
The Application of Digital Twin Technology in Substation Management	.8
An Impedance Spectrum-Based Simulation Method for Lithium-ion Batteries	4
Impact and Analysis of the Large-Scale Distributed Photovoltaic Integration on Regional Distribution Networks	.0
Research on Constant Voltage Frequency Ratio Control of AC Asynchronous Motor Based on DSI 145	Р
Shuqi Shi (Shaoyang University; Central South University, China), Long Ren (Shaoyang University, China), and Li Lin (Shaoyang University, China)	

Research and Implementation of Curve Card Based on Power Grid Control System Xueyong Zhang (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), Yueyan Chen (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), Guanyu Wu (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), Qin Zou (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), Li Zhang (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), Xiao Han (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), Hua Xu (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China), and Meifang Hou (NARI Group Corporation (State Grid Electric Power Research Institute); NARI-TECH Nanjing Control Systems Ltd., China)	49
Simulation Research on Traveling Wave Fault Location Method of 110 kV Transmission Line Based on Matlab	55
Research and Manufacturing of PLC Sensors Based Chip Sorter in Artificial Intelligence Internet of Things Environments for Smart Education	62
Attenuation Compensation Method for Broadband Signal of High - Voltage Power Cables 1 Wei Cai (Zhuhai Power Supply Bureau, China), Jiangjing Cui (Zhuhai Power Supply Bureau, China), Zilong Zhu (Zhuhai Power Supply Bureau, China), Haishen Li (Zhuhai Power Supply Bureau, China), and Wei Qiu (Zhuhai Power Supply Bureau, China)	71
A New Structural Design that Optimizes the Polarization and Mode Characteristics of Vertical Cavity Surface Emission Lasers	76
Analysis of Grid-Connected Oscillation Characteristics Based on Eigenvalue Sensitivity	80
Dynamic Evolution of Copper Impurities in Transformer Oil Under Thermal Induction and Their Effects on Performance	.86

Nanogold modified Titanium Dioxide-based Sensor for Gas Sensing in Transformer Oil
Operation Evaluation of Relay Protection Devices Based on Principal Component Analysis, Improved Entropy-Revised G1 Method and TOPSIS
Photogrammetric Method for Calculating Spatial Coordinates of Transmission Line Galloping 202 Qianyong Lv (Science Institute of Power System of Guizhou Power Grid Co. Ltd.; China Southern Power Grid Co. Ltd., China), Qi Yang (Science Institute of Power System of Guizhou Power Grid Co. Ltd.; China Southern Power Grid Co. Ltd., China), Caijin Fan (CSG Electrical Power Research Institute, China), Huan Huang (Science Institute of Power System of Guizhou Power Grid Co. Ltd.; China Southern Power Grid Co. Ltd., China), Xianyin Mao (Science Institute of Power System of Guizhou Power Grid Co. Ltd.; China Southern Power Grid Co. Ltd., China), and Jun Zhang (Xingyi Power Supply Bureau of Guizhou Power Grid Co., Ltd., China)
Low Voltage Compensation in Distribution Grid with Sparrow Search Algorithm
Temperature Rise Test Study on 10kV Distribution Transformers under Different Overload Currents
Power System Fault Classification and Prediction Based on Intelligent Algorithms

Virtual Power Plant Control Decision Method with Hierarchical Aggregation of Large-Scale Resources Based on Improved Wolf Pack Algorithm
Development of High-Precision Dual Integration AD Converter Based on MCU and FPGA 231 Long Li (National Institute of Measurement and Testing Technology, China), LingZhi Bai (National Institute of Measurement and Testing Technology, China), Peng Xiao (National Institute of Measurement and Testing Technology, China), and ChongJing Dai (National Institute of Measurement and Testing Technology, China)
Early Internal Short Circuit Detection and Quantitative Diagnosis of Lithium-ion Batteries Based on Voltage Correlation Coefficient and Extended Kalman Filter
A Design of a Power Specific Processor Based on RISC-V Architecture
Research on Key Devices for Precise Sampling of High Accuracy Electric Energy Measurement Equipment
Design of Energy Saving Light Control System for Corridor Based on Microcontroller
Research on Three-Phase Extended Phase to Phase Voltage Balance Control Strategy for Cascaded Rectifier Stages
Simulation and Intelligent Fault Diagnosis of Bidirectional LLC Resonant Converter
Design and Implementation of Intelligent Irrigation System Based on STM32 Microcontroller 279 Peng Qian (Anhui Sanlian University, China) and Wei Wang (Anhui Sanlian University, China)

Research on Cost Forecasting Method of Power Grid Transmission Project
Analysis of the Mechanism of Soft Fault in Cables Based on Transmission Line Theory
Identification Mthod of Ajustable Rsource Load Model for Large-Scale Virtual Power Plant Considering Multi-Dimensional Characteristics
On Task Offloading Optimization Method for Edge Computing in Hydropower Plants
Research on Grid-Based Environmental Monitoring System in Tibetan Region Based on CAT1 and RT-Thread
Rapid Position Determination Method for Internal Faults in Power Transformer Bushing
Short-Term Photovoltaic Power Prediction Based on Similar Daily Clustering and ISSA Optimized Neural Network
Design and Implementation of a Power Grid Fault State Analysis System Based on Deep Learning

Research on Energy Storage Planning Method and Energy Storage Optimization Distribution Method Adapted to Power Supply Structure	.328
Zewei Liao (Guizhou University, China), Qingsheng Li (China Southern Power Grid Company Limited, China), Chuan Yang (Guizhou University, China), and Chengfeng Li (Guizhou University, China)	
Research on Hardware and Algorithm Optimization of Smart Container	337
Research on Load Transfer Scheme Optimization with Considering the Distribution Topology Recognition Based on Graphical Model	342
State of Charge Estimation of Lithium-ion Batteries for Whole Life Cycle Based on Dual Adaptive Extended Kalman Filter Algorithm Jiayong Li (Henan New Taihang Power Source Co., LTD., China), Shaochun Xu (Harbin Institute of Technology, China), and Chao Lyu (Harbin Institute of Technology, China)	. 348
A New Hierarchical Control Strategy of Distribution Network for the Consumption of Distributed Resources with High Permeability and Energy Self-Balance	354
Study on the Magnetic Field Characteristics of Three-Phase Cables and Efficient Energy Extraction Methods	. 360
Optimal Design of Three-Phase Induction Motor Based on MATLAB Genetic Algorithm	. 370

Analysis of Influencing Factors of Transformer Vibration	75
Thermal Characterization of Integrated Circuit Package Considering the Influence of Heat Source Distribution and Heat Sink Package Structure	31
Computer Applications	
A CNN-LSTM-Based Dual-Task Neural Network for Power Operator Activity Detection 38 Xinchao Chen (State Grid of Qingdao Power Supply Company, China), Meng Li (State Grid of Qingdao Power Supply Company, China), Dong Wang (State Grid of Qingdao Power Supply Company, China), Renzhuo Wang (Shandong University, China), Jiaqi Zeng (Shandong University, China), and Zhikai Xu (Shandong University, China)	38
A Fast Algorithm to Find Computer-Aided Translation Tools View in Native XML Corpus Semantic Cache)3
Research on Quantum Phase Diagram of t-J Model Based on Machine Learning Tensor Network Algorithm) 7
Research on Obstacle Avoidance and Image Registration Technology Based on Binocular Vision	
Zihong Chen (Anhui Sanlian University, China) and Xing Zhang (Anhui Sanlian University, China)	
Femperature Prediction of Once-Through Steam Generator Tubes Based on Neural Network 40 Rui Chen (Suzhou Nuclear Power Research Institute Co., LTD., China))8
An Autonomous Exploration Method Integrating Local Multi-Point TOF Data and Edge Following	13
Cloud Edge Interaction Protocol Detection System for Distribution IoT Based on Metadata Definition	20

Analysis of Metal Mine Car Positioning and Safety Monitoring System Based on UWB
Research on Smoke Fire Alarm Prediction Model Based on XGBoost Algorithm
Research on YOLOv4 Object Detection Based on K-Means Algorithm and Fusion Attention Mechanism
Substation Immunity Improvement Strategy Based on Dynamic Credible Knowledge Graph 445 Liqin Shi (Research Institute, Qian Technologies, China), Zheng Yao (Research Institute, Qian Technologies, China), Tao Ruan (Research Institute, Qian Technologies, China), Tao Hong (Electric Power Division, Qian Technologies, China), and Haibo Zuo (Electric Power Division, Qian Technologies, China)
Segmentation of Multi-Center Cardiac Magnetic Resonance Images Based on Improved DeepLabV3+
Design of an Unmanned Platform Electro-Optical Tracking System Based on YOLO_v4 and OpenCV Image Recognition Algorithm
Conversation Generation Model Based on Attention Mechanism and Emotion Dictionary 464 Yulin Feng (Northwest Minzu University, China), Hailong Gai (Northwest Minzu University, China), Hongzhi Yu (Northwest Minzu University, China), and Fucheng Wan (Northwest Minzu University, China)
Design and Implementation of a Motion Training Assistance System Based on Body Sensing Recognition Technology
Binocular Vision Three-dimensional Measurement in Metrology
An Efficient Multi-Modal and Hyper-Parametric Autonomous Driving HvDetFusion Algorithm 478 Wenxing Chen (MAXIEYE, China) and Jianhe Liu (MAXIEYE, China)

Research on Feature Extraction of Power Grid Technical Transformation Project Based on NLP-LSTM
and Technology, China) Research on Component Extension Technology for Power System Configuration Software 488 Yueyan Chen (NARI-TECH Nanjing Control Systems Ltd., China), Qing Zou (NARI-TECH Nanjing Control Systems Ltd., China), and Xueyong Zhang (NARI-TECH Nanjing Control Systems Ltd., China)
A Drug Sales Forecasting Method Based on Multiple Models and Parameter Optimization 495 Dawei Liu (Wuhan University of Science and Technology, China) and Tao Li (Wuhan University of Science and Technology, China)
Badminton Action Recognition and Detection Using Artificial Intelligence and Neural Network Technology
Research on Path Planning for Automatic Parking Based on RRT* Algorithm
Classifying Authentic and Fake Anger Based on High-Performance LSTM Networks Model, Fuzzy Logic Model and Fully Connected Neural Network
Intelligent Prediction of Coal Mine Gas Emission Based on Deep Neural Network
Iris Recognition Based on Convolutional Neural Network and Active Iterative Optimization 523 Lijun Zhou (Northwest Minzu University; Sichuan University, China), Shuying Jiang (Sichuan University, China), Shengguo Zhang (Northwest Minzu University, China), and Xingli Zhang (Northwest Minzu University, China; University of Louisiana at Lafayette, USA)
Phase Information Recovery Using Non-Interference Technology
Optimization of the Prediction Model of Display Advertisement Width and Depth Click Rate . 535 Huansong Yang (Hangzhou Normal University, China), Youyou Zhang (Hangzhou Normal University, China), and Yani Wang (Hangzhou Normal University, China)
Research on a Modified MMMU-BA Framework for Multimodal Sentiment Analysis
Co-Simulation Design of RF Front-End Based on Three-Dimensional Vertical Interconnection of BGA
Yudi Zhong (Beijing Institute of Technolog, China), Lixin Xu (Beijing Institute of Technolog, China), and Jiajie Yang (Beijing Institute of Technolog, China)
Robot Path Planning Based on A* Algorithm

Research and Application of Improved Ant Colony Algorithm in Tourism Path Planning55 Qingbin Nie (Southwest Jiaotong University Hope College, China)
A Load Prediction Method of Air Conditioning System in Buildings Based on Deep Neural Networks with Error Retraining Strategy
Crack Detection Method for Asphalt Pavement Combining Multi-scale Features and Attention Mechanism
CT Image Classification of Pulmonary Nodules Based on Deep Transfer Learning and Inception-Res-V2
Cross-Domain Few-Shot Learning for Chinese Herbal Recognition
Demand Forecast for Shared New Energy Vehicles
Leveraging Profiling for Facial Recognition Optimization
An Optimization of K-Mean Algorithm for Feature Extraction Based on Computer Programming 599 Bailin Luan (Xi 'an University of Architecture and Technology, China)
Intelligent Infrared Thermometer of Transmission Line UAV Based on Multi-Sensor Cooperative Detection
Dual Channel Attention Mechanism for Apple Localization Detection and Segmentation 60 Jialin Zhang (Harbin University of Commerce, China), Yuxin Pan (Harbin University of Commerce, China), Yuhang Zhang (Harbin University of Commerce, China), and Huiyuan Sun (Harbin University of Commerce, China)

Chinese Restaurant Industry Review Sentiment Analysis Method Based on Integration Model . Rong Chen (Lanzhou Vocational Technical College, China), Mingyuan Liu (Liaoning Technical University, China), Li Pan (Lanzhou Vocational Technical College, China), and Yingchao Niu (Lanzhou Vocational Technical College, China)	614
GCC Toolchain Design Scheme Supporting PSPCore Coprocessor Instruction Jun Liu (Beijing Smartchip Microelectronics Technology CO., LTD, China.), Liang Liu (Beijing Smartchip Microelectronics Technology CO., LTD, China), Hui Wang (Beijing Smartchip Microelectronics Technology CO., LTD, China), Xige Zhang (Beijing Smartchip Microelectronics Technology CO., LTD, China), Yufeng Sun (Beijing Smartchip Microelectronics Technology CO., LTD, China.), Cuiping Zhang (Beijing Smartchip Microelectronics Technology CO., LTD, China.), and Song Jiang (State Grid Jiangsu Electric Power CO., LTD., China.)	619
Mongolian Text Sentiment Analysis Based on Multi-Scale CNN and mLSTM Mode	625
An Improved Recommendation Algorithm Based on Attention Mechanism	632
Wildlife Monitoring and Identification Based on Faster R-CNN	638
Pipeline Leakage Detection Method Based on Convolutional Neural Network Weixiang Tian (Chongqing Special Equipment Inspection and Research Institute; National Compressed Natural Gas (CNG) Cylinder Quality Inspection and Testing Center, China), Lin Mei (Chongqing Special Equipment Inspection and Research Institute; National Compressed Natural Gas (CNG) Cylinder Quality Inspection and Testing Center, China), Peng Jiang (Chongqing Special Equipment Inspection and Research Institute; National Compressed Natural Gas (CNG) Cylinder Quality Inspection and Testing Center, China), and Chengdong Fu (Chongqing Special Equipment Inspection and Research Institute; National Compressed Natural Gas (CNG) Cylinder Quality Inspection and Testing Center, China)	643
Design of Garbage Intelligent Recognition and Automatic Classification Device Jiaqi Wu (Shenzhen Polytechnic, China), Yuhao Zhang (Shenzhen Polytechnic, China), Haibo Yi (Shenzhen Polytechnic, China), Weiping Deng (WeBank, China), and Tao Qu (Guangzhou Urban Blockchain Industry Association, China)	648
Design and Optimization of a Dynamic Train Image Acquisition System Utilizing Line Scan Camera Technology	653

CNN-Based Parameter Decision for R-Lambda Model for VVC Intra Rate Control
Study of Transformer Model Based on ConvNeXt Network for Identification of Potato Leaf
Diseases
Clustering Method of Daily Load Curve Based on Dimension Reduction of Distribution Dynamic
Characteristic Index
Deep Random Forest Prediction Algorithm Based on LSTM and GRU Improvement and Application Research
Shanfang Feng (Beijing Technology and Business University, China), Jue Chen (Beijing Technology and Business University, China), Li Wang (Beijing Technology and Business University, China), Lang Zheng (Beijing Technology and Business University, China), Xuebo Jin (Beijing Technology and Business University, China), Xiaoyi Wang (Beijing Institute of Fashion Technology, China), Jiabin Yu (Beijing Technology and Business University, China), Yuting Bai (Beijing Technology and Business University, China), and Zhiyao Zhao (Beijing Technology and Business University, China)
A Globally Optimal Multi-Constrained Point Cloud Registration Algorithm
Pedestrian Detection with Bi-Directional Feature Pyramid and Channel-Spatial Attention Modules
Fault Diagnosis of Rolling Bearing Based on CNN-GRU
An Improved Seagull Optimization Algorithm for Solving Engineering Optimization Problems 705 Binbin Tu (Shenyang University, China), Fei Wang (Shenyang University, China), Yan Huo (Shenyang University, China), and Xiaotian Wang (Shenyang University, China)
Research on Object Detection Algorithm Based on Anchor-Free

Research on Street View Image Classification Based on CNN-Transformer
Improved Painting Image Style Classification of ResNet Based on Attention Mechanism 72 Lingquan Zeng (Donghua University, China)
A Study of Bert-Based Improvements in Multi-Party Conversational Machine Reading Comprehension
Classification of Ethnic Dress Based on ResNet
Digital Construction of Intelligent Laboratories Based on the Internet of Things and Improved YOLOv4 Algorithm
Design and Implementation of a Small Plant Scene Interactive Animation System Based on Delta3D Game Engine
Wavelet Neuron Network for Short-Term Mixed Traffic Flow Prediction
Short Term Passenger Flow Forecast of Urban Rail Transit Based on PSO-LSTM
A Method for Charging Holes Identifying in Electric Vehicle Automatic Charging System 76 Wei Luo (Nanjing University of Science and Technology Zijin College, China) and Zequn Xu (Nanjing University of Science and Technology Zijin College, China)
Refined Meta-Learning Approach Leveraging Residual Networks for Enhanced Performance76 Yihan Wang (Beijing Institute of Technology, China), Bo Wu (Beijing Institute of Technology, China), and Hongchen Guo (Beijing Institute of Technology, China)
Personnel Feature Modeling and Application Based on Deep Neural Network Technology77 Jianling Wu (State Grid Zhejiang Electric Power Co., Ltd., China), Hongjian Wu (State Grid Lishui Power Supply Company, China), Cancan Wang (State Grid Lishui Power Supply Company, China), Xiangsheng Ni (State Grid Zhejiang Electric Power Co., Ltd., China), and Junjie Wang (State Grid Lishui Power Supply Company, China)

Research on Comprehensive Identification and Classification Technology for Latent Faults	
in High-Voltage Switchgear Based on Machine Learning	.777
Bin Tang (Guangxi Power Grid Co., Ltd, China), Qinqin Liang (Guangxi	
Power Grid Co., Ltd, China), Fangyuan Han (Guangxi Power Grid Co.,	
Ltd, China), Min Yu (Guangxi Power Grid Co., Ltd, China), Longfei	
Zhang (Guangxi Power Grid Co., Ltd, China), Zongchang Luo (Guangxi	
Power Grid Co., Ltd, China), Chuansheng Luo (Guangxi Power Grid Co.,	
Ltd, China), Mengzhu Hu (Guangxi Power Grid Co., Ltd, China), Jialin	
Wang (Guangxi Power Grid Co., Ltd, China), and Liping Zhu (Guangxi	
Power Grid Co., Ltd, China)	
Multi-View Stereoscopic 3D Reconstruction Based on Adaptive Feature Fusion	. 783
Runbo Lu (No. 1 Substation Management Office of Dongguan Power Supply	
Bureau of Guangdong Power Grid Co., Ltd, China), Bitao Liang (No. 1	
Substation Management Office of Dongguan Power Supply Bureau of	
Guangdong Power Grid Co., Ltd, China), Yingguang Li (No. 1 Substation	
Management Office of Dongguan Power Supply Bureau of Guangdong Power	
Grid Co., Ltd, China), and Shanqiang Feng (Southern Power Grid Power	
Technology Co., Ltd, China)	
Attitude Stabilization Control Method of Hovering Aircraft Based on Internet of Things	
Technology	790
Dechen Wei (Binzhou University, China), Hao Yu (Binzhou University,	
China), Yuanyuan Jiao (Binzhou University, China), and Xiaoyang Zhao	
(Binzhou University, China)	
Edible Oil Spectral Image Classification Method Based on Double Branch Residual Neural	
Network	796
Yiqing Peng (Xi`an Polytechnic University, China), Xiaoqi Yan (Xi`an	
Polytechnic University, China), Xiaoling Ren (Xi`an Polytechnic	
University, China), and Charan Kumar Gatenda (University of Parma,	
Italy)	
Improvement of Particle Swarm Optimization Algorithm and Its Application in Power Data	
Mining	802
Hongbin Hu (Inner Mongolia Power Research Institute; Inner Mongolia	
Enterprise Key Laboratory of Smart Grid Simulation of Electrical Power	
System, China), Yifan Zhang (Inner Mongolia Power Research Institute;	
Inner Mongolia Enterprise Key Laboratory of Smart Grid Simulation of	
Electrical Power System, China), Junfei Han (Inner Mongolia Power	
Research Institute; Inner Mongolia Enterprise Key Laboratory of Smart	
Grid Simulation of Electrical Power System, China), Yuqiang Wang	
(Inner Mongolia Power Research Institute; Inner Mongolia Enterprise	
Key Laboratory of Smart Grid Simulation of Electrical Power System,	
China), Ming Zhong (Inner Mongolia Power Research Institute; Inner	
Mongolia Enterprise Key Laboratory of Smart Grid Simulation of	
Electrical Power System, China), Qianjin He (Inner Mongolia Tianda	
Tiancai Information Technology Co., Ltd., China), and Longlong Zhang	
(Inner Mongolia Tianda Tiancai Information Technology Co., Ltd.,	
China)	
Citim)	

Automatic Generation Technology of Regional Energy Optimization Strategy Based on Graph Neural Network
Hanyuan Huang (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), Haiping Yu (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), Jing Jin (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), Hao Zhu (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), Yuan Li (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), Yan Zhou (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), Yaqin Kuang (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China), and Yiguo Chen (NARI Group (State Grid Electric Power Research Institute) Co., Ltd., China)
Research on Brake Pad Surface Defect Detection Method Based on Deep Learning
Comparative Study of Sentient Anlysis Using Modified Pre-Trained Deep Learning Models for Chinese App Market Comment Texts
Ship Fuel Consumption Prediction based on MFO-BP
The Researches on Improved Speech Augmentation Algorithm Based on NMF Technique and OMP Algorithm
A Data Mining Method Based on Natural Language Processing and Machine Learning
A Movie Recommendation Algorithm Combining Time Weight GRU and Attention
Sports Video Analysis Algorithm Based on Image Multiple Processing Technology
Photovoltaic Power Prediction Based on Cluster Analysis and Fitting Residual Random Forest Ensemble Model
Multi-Label Classification Model for Consumer Product Defect Clues Based on BERT-GCN 856 Jingjing Tian (China National Institute of Standardization, Beijing 100191, China), Xueqiang Lv (Beijing Information Science & Technology University, China), and Xinhao Feng (Beijing Information Science & Technology University, China)

A Load-Balancing Strategy Based on Multi-Task Learning in a Distributed Training Environment
Yinqi Huang (Univerisity of Science and Technology Beijing, China), Wenjiang Zhou (China Academy of Information and Communications Technology, China), Liang Li (Univerisity of Science and Technology Beijing, China), Ting Lyu (Univerisity of Science and Technology
Beijing, China), and Haitao Xu (Univerisity of Science and Technology Beijing, China)
Research on Multi-Motor Cooperative Control Method Based on Hybrid Particle Swarm Algorith 869
Mingjun Li (Heilongjiang Institute of Construction Technology, China), Jihao Li (Heilongjiang Institute of Construction Technology, China), and Qiong Wu (Heilongjiang Institute of Construction Technology, China)
A Design of an Energy Regulation Network Framework of Central Air Conditioning System Based on LSTM Prediction Model
Embedded Zero-Shot Learning Algorithm Based on Semantic Attributes
PPO Based Reinforcement Learning Horizontal Pods Auto-Scaling-A Case Study in Simulation Environment
Detection and Location of Litchi Fruit Based on Object Detector and Depth Image
Decoupling Control Method of Temperature and Humidity in Long Storage Environment Based on Particle Swarm Optimization PID Algorithm 902 Rui Li (Xi'an Institute of Electromechanical Information Technology, China), Qingfeng Kong (Xi'an Institute of Electromechanical Information Technology, China), Jie Ma (Xi'an Institute of Electromechanical Information Technology, China), and Ke Liang (Xi'an Institute of Electromechanical Information Technology, China)

No-Reference Image Sharpness Assessment via Multi-Scale Texture Naturalness
Research on Prediction and Identification Method of Latent Fault Characteristic Gas in High Voltage Switchgear Based on Neural Network
Modular Mathematical Modeling Based on BP Neural Network and Cluster Analysis
Research on Three Parking Methods Based on Autonomous Driving

Author Index