

2022 15th International Conference on Computer and Electrical Engineering (ICCEE 2022)

Journal of Physics: Conference Series Volume 2320

Online
24-26 June 2022

ISBN: 978-1-7138-6040-2
ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 3.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2023)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Preface	
Peer Review Statement	
Design and Implementation of AGV Calling System Based on Android	1
<i>Ouwen Zhu, Yuli Zhao</i>	
The Determination of Reward Function in AGV Motion Control Based on DQN.....	8
<i>Yubin Chen, Dancheng Li, Huagang Zhong, Ouwen Zhu, Ziqi Zhao</i>	
Research and Analysis of Small Current Grounding Line Selection System	17
<i>Jiang Xinzheng, Jiang Nan</i>	
Negative Damping Mechanism Analysis of Power System Stabilizer Based on Damping Torque.....	24
<i>Xueqin Zhu, Yiqiang Yang, Jiangtao Fu, Wenrui Bai, Xiaolin Su</i>	
Lithium-Ion Batteries RUL Prediction Based on Temporal Pattern Attention	37
<i>Haochen Qin, Xuexin Fan, Yaxiang Fan, Ruitian Wang, Fengyuan Tian</i>	
VSC-HVDC Incorporated Corrective Security-Constrained Optimal Power Flow.....	45
<i>Cong Fu, Yashan Zhong, Pingping Zhang, Xiangzhen He, Yun Yang, Jian Zuo</i>	
Electric Vehicle Charging Station Load Prediction Based on IWOA-LSSVM Combined Model with Improved Variational Mode Decomposition.....	56
<i>Feng Ru, Xiaoqian Yang, Haoquan Zou, Lina Zhang, Xianfeng Xu</i>	
The Method for Automatic Adjustment of AGV's PID Based on Deep Reinforcement Learning	64
<i>Yubin Chen, Dancheng Li, Huagang Zhong, Ruihang Zhao</i>	
Magnetic Field Crosstalk Suppression Method on Superconducting Quantum Chips	73
<i>Yan Ye, Jiangtao Liu, Xiaoqiang Hou, Jianqiong Zhang, ZhiZhuo Huang</i>	
Design and Implementation of AGV Scheduling System Based on Spring	84
<i>Ruihang Zhao, Wei Zhang</i>	
Redundancy Strategy of Cascaded Energy Storage System Based on Model Prediction Control.....	91
<i>Bo Yang, Wencheng Tang</i>	
Study of Electromagnetic Characteristics of Silicon Steel Sheet and Transformer Vibration Under Different Tension/Compression Stress	102
<i>Chu Houguang, Li Longfei, Liu Lei, Zhang Fei, Zhu Sirui, Zhou Libing, Du Zhaoguang, Wen Jintao</i>	
Development and Application of Infrared Video Intelligent Diagnosis Device for Substation Equipment Based on Edge Calculation	109
<i>Guangwei Liu, Ka Mu, Boyan Liu, Xinsheng Ma, Zhen Hao, Jixian Ma</i>	
Resilience Assessment of an Expressway Microgrid Considering Network Reconfiguration	116
<i>Boyuan Cheng, Xinshou Tian, Limin Jia</i>	
Adaptive Restraint Coefficient-Based Differential Protection for Main Transformers in Wind Farms.....	123
<i>Zhi Zhang, Yang Sun, Zhiyan Li</i>	

Study of the IPOS DC/DC Converter for DC Offshore Wind Farm.....	132
<i>Huaxing Ding, Guibin Zou, Ning Ding, Chuanjie Wang</i>	
Research of the Loss of Power Transformer Structure	140
<i>Liu Lei, Li Longfei, Chu Houguang, Zhang Fei, Jin Ming, Zhang Weining, Ge Zhijie, Du Zhaoguang</i>	
Simulation Modeling of Switching Over Current of Circuit Breaker in Intercity Train.....	147
<i>Weinan Cao, Ning Sun, Yong Wang, Meng Li</i>	
Scenario Generation for Wind Power Using Generative Adversarial Networks	155
<i>Shi Tiancheng, De Gejirifu, Cong Hao, Guo Wenzhang, Zhong Yalin, Qian Long</i>	
Lightning Transient Analysis Comparison and Wind Turbine Models Using PSCAD/EMTDC Circuit Simulator	162
<i>Tserensambuu Chinges, Qingmin Li, Jiyao Zhao</i>	
Road Extraction Using High Resolution Satellite Images Based on Receptive Field and Improved Deeplabv3+	170
<i>Yun Wang, Suye Wang, XueBin Hong</i>	
One-Shot Face Recognition Through a Region Inception ResNet with Modified Triplet Loss	178
<i>Bo Sun, Ao Luo, Bojie Rong, Jun He, Lejun Yu</i>	
Deep Supervised Cross-Modal Hashing for Ship Image Retrieval.....	188
<i>Jiaen Guo, Haibin Wang, Bo Dan, Yu Lu</i>	
An Image Encryption Scheme Based on Adaptive Bit-Plane Division	196
<i>Jun Gu, Feng Xu, Tao Zeng, Xin Lyu</i>	
Detection of Self-Explosive Insulators in Aerial Images Based on Improved YOLO V4.....	210
<i>Li Yi, Li Jinguo, Zhai Yongjie, Meng Ping</i>	
Lossless Compression and Optimization Method of Data Flow Efficiency of Infrared Image Depth Learning Model of Substation Equipment.....	223
<i>Guangwei Liu, Zhen Hao, Zheng Niu, Ka Mu, Jixian Ma, Wenzhe Zhang</i>	
Image Point Set Registration: Phased Gaussian Mixture Model	230
<i>Xin Hu, Hao Qin</i>	
Transmission Line Foreign Body Fault Detection Using Multi-Feature Fusion Based on Modified YOLOv5	237
<i>Qianyue Wang, Gangquan Si, Kai Qu, Jiahui Gong, Lele Cui</i>	
A Water Gauge Scale Capturing Method in Tidal Well Based on Image Recognition	245
<i>Hai Guo, Yanyan Wang, Yifei Zhang</i>	
Cloud Resource Scheduling Method Based on Markov Process and the Cuckoo Search	253
<i>Bin Qi, Pan Zhang, Hong Wu, Miao Yan</i>	
Hybrid Model Compression for Multi-Task Network	261
<i>Min Xie, Weize Sun, Lei Huang</i>	
Photovoltaic Output Prediction Method Based on Weather Forecast and Machine Learning	269
<i>Kaikai Zhang, Guibin Zou</i>	

Author Index