## **JOURNAL OF COMPUTERS**

ISSN: 1991-1599 Volume 34 Number 2 April 2023

## **CONTENTS**

Image Segmentation Method Based on Improved PSO Optimized FCM
Algorithm and Its Application1
Guo-Long Yu, Zhong-Wei Cui, Qiong-Fang Yuan
Surface Defect Recognition of Wind Turbine Blades Based on Improved
YOLOX-X Model19
Changhao Dong, Chao Zhang, Jianjun Li, Jiaxue Liu
<b>Unrestricted Face Recognition Algorithm Based on Improved Residual</b>
Network IR-ResNet-SE
Hong-Rong Jing, Guo-Jun Lin, Tian-Tian Chen, Hong-Jie Zhang, Long Zhang,
Shun-Yong Zhou
A Deep Reinforcement Learning-Based Approach in Porker Game41
Yan Kong, Yefeng Rui, Chih-Hsien Hsia
Research on Copyright Protection Technology based on MIDI Music
Structural Features
De Li, Jiazheng Gong, Zhaolong Liu, Xun Jin
Air Quality Index Prediction Based on a Long Short-Term Memory Artificial
Neural Network Model69
Chen Wang, Bingchun Liu, Jiali Chen, Xiaogang Yu
Annolog: A Query Processing Framework for Modelling and Reasoning with
Annotated Data81
Haochen Zou, Dejian Wang, Yang Xiao
A Lightweight V2R Authentication Protocol Based on PUF and Chebyshev
Chaotic Map99
Haiyan Wang, Haibing Mu
Research on Rip Currents Detection Method Based on Improved YOLOv5s
113
Rui Qi, Dao-Heng Zhu, Xue Qin

Multi-scale Fusion Residual Network For Single Image Rain Removal129
Jia-Chen He, Ming-Jian Fu, Li-Qun Lin
Optimal Defense Strategy for Data Security Based on Improving Evolutionary
Game Model between Heterogeneous Groups141
Mingxin Yang, Lei Feng
Information Extraction Method of DBH of Individual Trees in Artificial Forest
Based on UAV Image161
Chang-Chao Yan, Hai-Jing Shi, Jia Zeng, Yan-Min Jiang, Wei-Yang Li
Research on Video Encryption Technology Based on Cross Coupled Map
Lattices System
Hao-Qiang Xu, Jian-Dong Liu
A Real-Time Monitoring and Diagnosis Method of Production Line Conveyor
Chain for Digital Twin191
Bo Liu, Ying-Ming Shi
Research on Artificial Intelligence Detection Method of Lithium Battery
Surface Defects for Production Line203
Jian Wang, Dong-Liang Fan, Jin-Ping Du, Lei Geng, Ya-Jin Hou
Research on Dynamic Recognition and Tracking Technology for Complex
Scenes of Automatic Driving215
Shuai-Wu Zhang, Yu-Mei Zhao, Xiang-Lian Yang
Research on The Construction of Digital Campus for Vocational Colleges
Yongjun Wei, Qiumi Qin, Jingling Xiao, Jun Yin, Wufeng Chen, Guangfa Liang
A Computer-Aided Intelligent Fault Diagnosis Method for Axial Hydraulic
Piston Pump233
Yi-Hui Chen