JOURNAL OF COMPUTERS

ISSN: 1991-1599 Volume 35 Number 5 October 2024

CONTENTS

PIPE-ID: Pipelined Innovative Teaching Architecture for Interdisciplinary
Design in Vocational Education using Information and Communication
Technology1
Dong Li and Ying Huang
Multimodal Image Fusion Algorithm Based on Two-stage Multiscale
Decomposition15
Lei Zhang, Yi-Yuan Cheng, Jing Li, Zhi-She Wang, Lin-Na Ji, and Wei Liu
Fault Detection Method of Oil-immersed Transformer Based on Thermal
Imaging35
Xi Song, Mingdong Zhang, Weidong Xie, Shaorong Cao, and Chaochao Gao
Diagnosis Bearing Faults Based on the Triplet Optimized Embedding Models
47
Xinyang Chen
Machine Learning-Based Algorithms Applied to Identifying Drug Smuggling
via Postal and Express Delivery Channels61
Mingyue Qiu, Xueying Zhang, Linsheng Jiang, and Xinmeng Wang
SERDA: Secure Enhanced and Robust Data Aggregation Scheme for Smart
Grid73
Yiming Chen, Hongjun Duan, Dong Wang, Yining Liu, and Chin-Chen Chang
Proving Linearizability of Concurrent Queues91
Jie Peng, Tangliu Wen, and Dongming Jiang
Robust Scheduling Strategy for Renewable Energy Storage Systems
Considering Uncertainty105
Mei Han, Jun-Kai Zhang, Xiao-Yan Jiang, Xiao-Yang Zhang, and Yan Zhou
Energy-Efficient Optimization of Multi-UAV Assisted Smart Grids Networks
Zhongyuan Nian, Jingxue Tian, Xu Lu, Hua Wang, Heli Zhang, Chunfang Mu, and Yang Li

Research on Railway Train Space Position Correction Algorithm Based on	
GNSS Correction Model	
WenBin Liu and XiaoLei Xu	
An Average Temperature Feedback based PID Controller for Multi-Channel	
Balanced Heating in Thermal Vacuum Test149	
Xin Chang, Bo Zang, Peng Gao, Xiaoke Li, Zongmin Zhao, and Ao Ye	
Trajectory Planning Method for Welding Pipe Parts Using Industrial Robots	
Based on 3D Vision169	
Rui Fan, Jian Gao, Chun-Ying Zhu, and Qing-Chuan Liu	
Design of a Machine Vision Based Image Acquisition and Detection System for	r
Surface Defects of Metal Bars187	
Xiang-Yun Yi, Rui-Da He, Juan-Hong Jing, Wei-Tao Jia, Wen-Ya Shi,	
and Tao Zhang	
Design of Electrical System Teaching Platform Based on PLC and	
Implementation of Virtual Simulation Training System203	
Jing Wang and Zuo-Zeng Liu	
Research on the Design and Application of a Rapid Inspection System and	
Method for Ship Curved Plate Forming Based on Binocular Vision221	
Zhi-Fei Guo and Feng Yang	
Intelligent Driving Decision-Making Strategy for New Energy Vehicles Based	
on Lightweight Reinforcement Learning Model237	
Wen-Tao Li, Zhi Zhang, Xiang-Yu Yi, Xiao-Bo Dong, Liang-Gui Zhang,	
and Li-Yun Yang	