

The 15th International Conference on Genetic and Evolutionary Computing (ICGEC 2023)

October 6-8, 2023, Kaohsiung, Taiwan (Kaohsiung Software Technology Park)

Conference Program

(Onsite/Online Hybrid)

Time Zone for the Conference Program: GMT +08:00 Please visit https://voovmeeting.com/ for VooV Meeting clients

ICGEC 2023 Official Website: https://icgec23.github.io/

Conference Program

Time	October 6, 2023 (Friday)	
08:30 09:00	Registration (Conference Room 301, 3F)	
09:00 09:10	Opening (Conference Room 301, 3F) (Onsite Live VooV Meeting ID: 196-004-889)	
09:10 10:00	Keynote Speech (I) Prof. Seyedali Mirjalili (Conference Room 301, 3F) (Onsite Live VooV Meeting ID: 196-004-889)	
10:00 10:20	Break	
10:20 12:00	Session A01 (Conference Room 301, 3F) (Onsite Live VooV Meeting ID: 152-084-590)	On-line Session B01 (VooV Meeting ID: 688-012-931)
12:00 13:30	Lunch (B1F NEW HOUSE Restaurant)	
13:30 15:30	Visit KO-IN	On-line Session B02 (VooV Meeting ID: 227-085-595)
15:30 17:30		On-line Session B03 (VooV Meeting ID: 644-007-649)
18:00	Welcome Reception (43F, Grand HiLai Hotel, HARBOUR Restaurant)	

Conference Program

Time	October 7, 2023 (Saturday)	
08:30 09:00	Registration (Conference Room 301, 3F)	
09:10 10:00	Keynote Speech (II) Prof. Peng Shi (Conference Room 301, 3F) (Onsite Live VooV Meeting ID: 462-054-417)	
10:00 10:20	Break	
10:20 12:00	Session A02 (Conference Room 301, 3F) (Onsite Live VooV Meeting ID: 428-002-619)	On-line Session B04 (VooV Meeting ID: 891-019-555)
12:00 13:30	Lunch (1F, Nango Cafe Restaurant)	
13:30 15:30	Session A03 (Conference Room 301, 3F) (Onsite Live VooV Meeting ID: 162-051-424)	On-line Session B05 (VooV Meeting ID: 477-029-566)
15:30 17:30		On-line Session B06 (VooV Meeting ID: 326-012-440)
18:00	Banquet (7AF, Han-Hsien International Hotel, VIP Rooms - Premier Suite)	

Conference Program

Time	October 8, 2023 (Sunday)
09:00 10:30	On-line Session B07 (VooV Meeting ID: 972-088-765)
10:30 12:00	On-line Session B08 (VooV Meeting ID: 578-049-402)
12:00 13:30	Break
13:30 15:30	On-line Session B09 (VooV Meeting ID: 441-070-432)

Keynote Speech

Keynote Speech (I): Combining Performance and Stability: The Art of Robust Optimization

Speaker: Prof. Seyedali Mirjalili, Torrens University, Australia.

Date: October 6, 2023 (Friday)

Time: 09:10-10:00 **Room**: 301, 3F

Onsite Live VooV Meeting ID: 196-004-889

Session Chair: Prof. Shi-Huang Chen, Shu-Te University, Taiwan

Keynote Speech (II): Cyber-physical systems: Analysis and Design

Speaker: Prof. Peng Shi, School of Electrical and Electronic Engineering University of Adelaide,

Australia.

Date: October 7, 2023 (Saturday)

Time: 09:10-10:00 **Room**: 301, 3F

Onsite Live VooV Meeting ID: 462-054-417

Session Chair: Chin-Shiuh Shieh, National Kaohsiung University of Science and Technology, Taiwan

Paper Presentation

Session A01: Hybrid Computing and Applications

Date: October 6, 2023 (Friday)

Time: 10:20-12:00 **Room**: 301, 3F

Onsite Live VooV Meeting ID: 208-037-384

Session Chair: Prof. Shih-Pang Tseng, Changzhou College of Information Technology, China

(1) Paper ID: ICGEC-2023-B56

Paper Title: Prediction and analysis of stroke risk based on Ensemble learning Author(s): Xiuji Zuo, Xin Guo, Zilong Yin, Shih-Pang Tseng

(2) Paper ID: ICGEC-2023-A31

Paper Title: Automobiles Driving Data Recording Method Based on Internet of Vehicles and Blockchain Technologies

Author(s): Chuan-Sheng Hung, Shi-Huang Chen, Chun-Hung Richard Lin

(3) **Paper ID: ICGEC-2023-B61**

Paper Title: Chewing Behavior Detection Based on Facial Dynamic Features

Author(s): Cheng-Zhe Tsai, Chun-Chih Lo, Lan-Yuen Guo, Chin-Shiuh Shieh, Mong-Fong Horng

(4) **Paper ID: ICGEC-2023-B62**

Paper Title: Unknown DDoS Attack Detection using Open-Set Recognition Technology and Fuzzy C-Means Clustering

Author(s): Hao Kao, Thanh-Tuan Nguyen, Chin-Shiuh Shieh, Mong-Fong Horng, Denis Miu

(5) Paper ID: ICGEC-2023-B63

Paper Title: Dairy cow behavior recognition technology based on machine learning classification Author(s): Che-Wei Chou, Chang-Ang Lee, Shu-Wei Guo, Chin-Shiuh Shieh, Mong-Fong Horng

(6) Paper ID: ICGEC-2023-B64

Paper Title: PSO-based CI Agent with Learning Tool for Student Experience in Real-World Application

Author(s): Chang-Shing Lee, Mei-Hui Wang, Chih-Yu Chen, Che-Chia Liang, Sheng-Chi Yang, Mong-Fong Horng

(7) Paper ID: ICGEC-2023-B65

Paper Title: A GA-based Scheduling Algorithm for Semiconductor-Product Thermal Cycling Tests Author(s): Yeong-Chyi Lee, Tzung-Pei Hong, Yi-Chen Chiu, Chun-Hao Chen

Session A02: Artificial Intelligence and Applications (I)

Date: October 7, 2023 (Saturday)

Time: 10:20-12:00 **Room**: 301, 3F

Onsite Live VooV Meeting ID: 962-076-156

Session Chair: Prof. Kuan-Chun Huang, Chung Yuan University, Taiwan.

(1) Paper ID: ICGEC-2023-B40

Paper Title: An Optimal Inventory Replenishment Strategy with Cross-docking System and Time Window Problem

Author(s): Yen-Deng Huang, Simon Wu, Xue-Fei Yuan

(2) Paper ID: ICGEC-2023-B72

Paper Title: Design and implementation of campus pedestrian detection using YOLO rapid object detection

Author(s): Yuh-Chung Lin, Ta-Wen Kuan, Shih-Pang Tseng, Xinhang Lv

(3) **Paper ID: ICGEC-2023-A30**

Paper Title: Integrating Virtual and Real System Platforms based on IIoT Technology - A Case Study of PLC and Automation Studio

Author(s): Kuan-Chun Huang, Wen-Yen Huang

(4) **Paper ID: ICGEC-2023-A16**

Paper Title: Parallel and Distributed MOEA/D with Virtual Overlapping Zone and Exclusively Evaluated Mating

Author(s): Xinyuan Zhu, Yuji Sato, Mads Midtlyng, Mikiko Sato, Jia Guo

(5) **Paper ID: ICGEC-2023-B70**

Paper Title: Application of Entropy – TOPSIS method in service quality assessment Author(s): Tien-Chin Wang, Thuy Thi Thu Nguyen

(6) **Paper ID: ICGEC-2023-B75**

Paper Title: The Effect of Wooden Floor Processing Procedures on Product Quality Author(s): Tien-Chin Wang, Tzu-Lien Hung, Jiunn-Ming Yu

(7) Paper ID: ICGEC-2023-B76

Paper Title: The Effect of Heat Treatment on the Quality Characteristics of Metal Materials Author(s): Tien-Chin Wang, Shun-Tung Wu, Jiunn-Ming Yu

Session A03: Digital Transformation Technologies and Artificial Computing

Date: October 7, 2023 (Saturday)

Time: 13:30-17:30 **Room**: 301, 3F

Onsite Live VooV Meeting ID: 187-066-741

Session Chair: Prof. Thi Thi Zin, University of Miyazaki, Japan.

(1) Paper ID: ICGEC-2023-B41

Paper Title: Proposal of a DDoS Attack Detection Method Using the Communication Interval Author(s): Kosei Iwasa, Shotaro Usuzaki, Kentaro Aburada, Hisaaki Yamaba, Tetsuro Katayama, Mirang Park, Naonobu Okazaki

(2) Paper ID: ICGEC-2023-B42

Paper Title: Study of an image-based CAPTCHA that is resistant to attacks using image recognition systems

Author(s): Sojiro Nishikawa, Shotaro Usuzaki, Kentaro Aburada, Hisaaki Yamaba, Tetsuro Katayama, Mirang Park, Naonobu Okazaki

(3) Paper ID: ICGEC-2023-B43

Paper Title: Blind Image Quality Assessment Using Standardized NSS and Multi-Pooled CNN Author(s): Nay Chi Lynn, Yosuke Sugiura, Tetsuya Shimamura

(4) **Paper ID: ICGEC-2023-B44**

Paper Title: Abnormal Activity Detection based on Place and Occasion in Virtual Home Environments

Author(s): Swe Nwe Nwe Htun, Shusaku Egami, Duan Yijun, Ken Fukuda

(5) Paper ID: ICGEC-2023-B45

Paper Title: Proposal of Fill in the Missing Letters CAPTCHA Using Associations from Images Author(s): Hisaaki Yamaba, Muhammad Nur Firdaus Bin Mustaza, Shotaro Usuzaki, Kentaro Aburada, Masayuki Mukunoki, Mirang Park, Naonobu Okazaki

(6) Paper ID: ICGEC-2023-B46

Paper Title: Digital Transformation (DX) Solution for Monitoring Mycoplasma Infectious Disease in Calves: A Worldwide Health Challenge

Author(s): Cho Nilar Phyo, Pyke Tin, Hiromitsu Hama, Thi Thi Zin

(7) **Paper ID: ICGEC-2023-B47**

Paper Title: AI Driven Movement Rate Variability Analysis Around the Time of Calving Events in Cattle

Author(s): Wai Hnin Eaindrar Mg, Pyke Tin, Masaru Aikawa, Ikuo Kobayashi, Yoichiro Horii, Kazuyuki Honkawa, Thi Thi Zin

Session B01: Artificial Intelligence and Algorithms

Date: October 6, 2023 (Friday)

Time: 10:20-12:00

VooV Meeting ID: 688-012-931

Session Chair: Prof. Trong-The Nguyen, Fujian University of Technology, China

(1) **Paper ID: ICGEC-2023-B18**

Paper Title: Recent Evolutionary Computing Algorithms and Industrial Applications: A Review Author(s): Shu-Chuan Chu, Thi-Kien Dao, Thi-Minh-Phuong Ha, Truong-Giang Ngo, Trong-The Nguyen

(2) **Paper ID: ICGEC-2023-B22**

Paper Title: An Optimal Power System Operation Planning Based on Enhanced Cuckoo Search Algorithm

Author(s): Jeng-Shyang Pan, Trong-The Nguyen, Trinh-Dong Nguyen, Thi-Xuan-Huong Nguyen, Thi-Kien Dao

(3) **Paper ID: ICGEC-2023-A13**

Paper Title: Emotional Visualization Analysis Based on Online Book User Comments Author(s): Jingxiu Xu, Albert A. Vinluan

(4) **Paper ID: ICGEC-2023-A25**

Paper Title: Pattern Mining Local Search Heuristics for Dynamic Pickup Delivery Problems Author(s): Connor Little, Salimur Choudhury, Kai Salomaa

(5) Paper ID: ICGEC-2023-A27

Paper Title: Application of Genetic Algorithm to Optimize Bicycle Lighting Order Scheduling Taking Company E as an Example

Author(s): Kevin Huang, Guan Dazhong, Zhang Yinqi

(6) Paper ID: ICGEC-2023-A29

Paper Title: Research on the Application of Taguchi Theory to Verify the Improved Bamboo Forest Growth Optimization Algorithm

Author(s): Yin-Chi Chang, Kevin Huang, Da-Zhong Guan

(7) Paper ID: ICGEC-2023-A01

Paper Title: Analysis on the Influence of Regional Agricultural Planting Factors on Grain Yield Based on Genetic Feedback Process Neural Network

Author(s): Yuan Tian, Yongquan Liang

(8) Paper ID: ICGEC-2023-A02

Paper Title: Analysis of the coordination of highway network in urban agglomerations based on fractal theory

Author(s): Meng-Jun Mei, Ding Chen, Zhe-Ming Lei, Bin Hu

Session B02: Unmanned Aerial Vehicles and Object Detection

Date: October 6, 2023 (Friday)

Time: 13:30-15:30

VooV Meeting ID: 227-085-595

Session Chair: Prof. Chao-Yang Lee, National Yunlin University of Science and Technology, Taiwan

(1) Paper ID: ICGEC-2023-B49

Paper Title: Lane following strategy for autonomous Drones with Concurrent Features Fusion Attention Deep Learning Networks

Author(s): Chao-Yang Lee, Abida Khanum

(2) **Paper ID: ICGEC-2023-B13**

Paper Title: Robust Target Detection and Localization for UAV Autonomous Landing with Partially Occluded Targets

Author(s): Mingmei Shao, Yanyan Liu, Jiaze Tang, Huanyu Liu, Junbao Li

(3) **Paper ID: ICGEC-2023-A06**

Paper Title: UAV Path Planning Based on Improved QUATRE Algorithm in Different Environments

Author(s): Xin Zhang, Gengfeng Zheng, Haolong Chen, Song Chen

(4) **Paper ID: ICGEC-2023-A03**

Paper Title: Path Planning Based on YOLOX and Improved Dynamic Window Approach Author(s): Xin Zhang

(5) **Paper ID: ICGEC-2023-B48**

Paper Title: Channel-wise Pruning via Learn Gates&BN for Object Detection Tasks Author(s): Min-Xiang Chen, Po-Han Chen, Chia-Chi Tsai

(6) **Paper ID: ICGEC-2023-A14**

Paper Title: Multi-Scale Convolution Kernels and Residual Components for Deciduous Leaves Detection

Author(s): Ta-Wen Kuan, Xiaodong Yu, Shunnian Luo, Yuh-Chung Lin, Ying Chen, Yanze Wang

(7) **Paper ID: ICGEC-2023-A15**

Paper Title: Yolo v3 for Market MBFVS Food Materials Detection

Author(s): Ta-Wen Kuan, Xiaodong Yu, Qi Wang, Yihan Wang

(8) Paper ID: ICGEC-2023-A23

Paper Title: Deep learning-based speed limit information recognition

Author(s): Xu Luo, Fumin Zou, Sijie Luo, Feng Guo

(9) Paper ID: ICGEC-2023-B52

Paper Title: Design of license plate recognition system based on machine vision Author(s): Ming Hui Zhang, Xu Yang, Ming Chao Zhang

(10) Paper ID: ICGEC-2023-A26

Paper Title: Hierarchy Affective Knowledge Enhanced Emotion Recognition Model Author(s): Sufen Chen, Xiaofang Nie, Xueqiang Zeng

Session B03: Computing for Smart Living and Learning

Date: October 6, 2023 (Friday)

Time: 15:30-17:30

VooV Meeting ID: 644-007-649

Session Chair: Prof. Yuh-Chung Lin, Sanda University, China

(1) **Paper ID: ICGEC-2023-A18**

Paper Title: Research on Value-added Evaluation of University Teachers based on University functions

Author(s): Lin Li, Shi wei, Ta Wen Kuan

(2) Paper ID: ICGEC-2023-B51

Paper Title: Research on the Influence Mechanism of College Students' Learning Satisfaction Based on the Chain Mediation Model

Author(s): Xin Guo, YiChen Yang, Zilong Yin, Ying Chen, Yujia Wu

(3) Paper ID: ICGEC-2023-B53

Paper Title: Construction and application of knowledge graph in the field of medical food supplements

Author(s): Ming Hui Zhang, Wei Hong Yu, Ming Chao Zhang

(4) Paper ID: ICGEC-2023-B54

Paper Title: Practice and exploration of discrete mathematics teaching in applied undergraduate colleges under the background of new engineering

Author(s): Ming Chao Zhang, Ming Hui Zhang

(5) **Paper ID: ICGEC-2023-B38**

Paper Title: Research on Innovative Social Service Training Mode in Higher Vocational Colleges under the New Situation

Author(s): Wei Zong, Dawei Luo

(6) Paper ID: ICGEC-2023-B39

Paper Title: Research on the Precise Teaching Path of Higher Vocational Colleges under the Concept of OBE in the Digital Era

Author(s): Juan Luo

(7) Paper ID: ICGEC-2023-A09

Paper Title: Exploring the Integration of Neural Networks in Quality-Oriented Education for Undergraduates: Evolutionary Computing-Based Personalized Learning Path Recommendation Author(s): Xiaoyu Dong, Miaomiao Zhao

(8) Paper ID: ICGEC-2023-B57

Paper Title: The Users' purchase Behavior Research of Buying Clothing of Live Streaming eCommerce on Tiktok

Author(s): Hang Zheng, Zhiqiang Zhu

(9) **Paper ID: ICGEC-2023-B58**

Paper Title: Exploration on the Evaluation Index System of E-commerce Application Talents' Literacy for Industry Needs

Author(s): Zhiqiang Zhu

(10) Paper ID: ICGEC-2023-B59

Paper Title: Research on Cosmetics Consumer Behavior Analysis and Marketing Strategy Optimization on E-Commerce Platform "Xiaohongshu"

Author(s): Xuwei Zhang, Zhiqiang Zhu

Session B04: Optimization Algorithms and Applications (I)

Date: October 7, 2023 (Saturday)

Time: 10:20-12:00

VooV Meeting ID: 891-019-555

Session Chair: Prof. Pei Hu, Shandong University of Science and Technology, China

(1) **Paper ID: ICGEC-2023-B01**

Paper Title: Binary Growth Optimizer: for Solving Feature Selection Optimization Problems Author(s): Shu-Chuan Chu, Zhi-Chao Dou, Jeng-Shyang Pan, Lingping Kong, Tien-Szu Pan

(2) **Paper ID: ICGEC-2023-B02**

Paper Title: A New Coati Optimization Algorithm for Binary Optimization Author(s): Gui-Ling Wang, Shu-Chuan Chu, Jeng-Shyang Pan, Dongqiang Yang, Chin-Shiuh Shieh

(3) Paper ID: ICGEC-2023-B03

Paper Title: Bamboo Forest Growth Optimization Algorithm for Night Image Enhancement Author(s): Hao-Jie Shi, Jeng-Shyang Pan, Shu-Chuan Chu, Lingping Kong, Václav Snášel

(4) Paper ID: ICGEC-2023-B05

Paper Title: Application and effectiveness evaluation of BP neural network model based on Rafflesia Optimization Algorithm optimization in daily average temperature prediction Author(s): Zhen Zhang, Shu-Chuan Chu, Jeng-Shyang Pan, Wei Li, Hongmei Yang

(5) **Paper ID: ICGEC-2023-B11**

Paper Title: Gannet optimizer-based clustering scheme for wireless sensor networks Author(s): Longkang Yue, Jeng-Shyang Pan, Shu-Chuan Chu, Shi-Huang Chen, Junzo Watada

(6) Paper ID: ICGEC-2023-B16

Paper Title: A parallel Slime Mould Algorithm with Boundary rebound and Knowledge-sharing mechanism

Author(s): HongYe Fan, Shu-Chuan Chu, Xiao Sui, Jeng-Shyang Pan

(7) **Paper ID: ICGEC-2023-B07**

Paper Title: Overview of Reversible data hiding for JPEG images Author(s): Tiancong Zhang, Wei Chen, Chunyu Zhang, Shu-Chuan Chu

(8) Paper ID: ICGEC-2023-B12

Paper Title: Parallel Artificial Rabbits Optimization Algorithm for Image Watermarking Author(s): Han Gao, Weimin Zheng, Minghui Zhu

Session B05: Intelligent Transportation Systems

Date: October 7, 2023 (Saturday)

Time: 13:30-15:30

VooV Meeting ID: 477-029-566

Session Chair: Prof. Yen-Deng Huang, Changzhou College of Information Technology, China

(1) Paper ID: ICGEC-2023-A12

Paper Title: An ETC missed transaction data restoration approach for expressways considering multiple scenario features

Author(s): Zhaoyi Zhou, Fumin Zou, Qiqin Cai

(2) Paper ID: ICGEC-2023-A24

Paper Title: Vehicle identification model of expressway service area based on ETC transaction data Author(s): Fumin Zou, Yi You, Qiqin Cai, Feng Guo

(3) **Paper ID: ICGEC-2023-B24**

Paper Title: Vehicle traveling speed prediction based on LightGBM algorithm

Author(s): Nan Li, Fumin Zou, Feng Guo

(4) **Paper ID: ICGEC-2023-B26**

Paper Title: Short-time driving style classification and recognition method on expressway Author(s): GuangHao Luo, FuMin Zou, Feng Guo, ChenXi Xia

(5) Paper ID: ICGEC-2023-B27

Paper Title: Expressway Short-term Traffic Flow Prediction Based on CNN-LSTM

Author(s): Ting Ye, Fumin Zou, Feng Guo

(6) Paper ID: ICGEC-2023-B28

Paper Title: Expressway Traffic Speed Prediction Method Based on KF-GRU model via ETC data Author(s): ChenXi Xia, FuMin Zou, Feng Gou, GuangHao Luo

(7) **Paper ID: ICGEC-2023-B29**

Paper Title: Dynamic Brightness Adjustment of Tunnel Lighting Based on ETC Transaction Data Author(s): Shilong Zhuo, Fumin Zou, Feng Guo, Xinrui Zhao

(8) Paper ID: ICGEC-2023-B30

Paper Title: Short-time traffic flow prediction of highway toll station based on combined GRU-MLP model

Author(s): Wenyu Chen, Fumin Zou, Feng Guo

(9) Paper ID: ICGEC-2023-B31

Paper Title: Real-time carbon emission monitoring and prediction method of expressway based on LSTM

Author(s): Xinrui Zhao, Fumin Zou, Feng Guo, Sirui Jin

(10) Paper ID: ICGEC-2023-B74

Paper Title: Barnacle Growth Algorithm (BGA): A new bio-inspired metaheuristic algorithm for solving optimization problems

Author(s): Ankang Shao, Shu-Chuan Chu, Yeh-Cheng Chen, Tsu-Yang Wu

Session B06: Information Technology and Applications (I)

Date: October 7, 2023 (Saturday)

Time: 15:30-17:30

VooV Meeting ID: 326-012-440

Session Chair: Prof. Liang-Cheng Shiu, National Pingtung University, Taiwan

(1) **Paper ID: ICGEC-2023-A22**

Paper Title: Modeling of Drama Performance Intelligent Evaluation Driven by Multimodal Data Author(s): Zhen Song, Yufeng Wu, Longfei Zhang, Wenting Tao, Lijie Li, Gangyi Ding

(2) Paper ID: ICGEC-2023-B35

Paper Title: Research on the Detection Method of Sybil Attacks on Wireless Terminals in Power Internet of Things

Author(s): Daming Xu, Kelin Gao, Zhongbao Hou, Li Zhang, Zhipei Wei, Qi Li, Yuzhu Ding

(3) **Paper ID: ICGEC-2023-B66**

Paper Title: Power Internet of Things Security Evaluation Method Based on Fuzzy Set Theory Author(s): Yuman Wang, Hongbin Wu, Yilei Wang, Zixiang Wang, Xinyue Zhu, Kexi-ang Qian

(4) **Paper ID: ICGEC-2023-B67**

Paper Title: A Q-Learning Based Power-Aware Data Dissemination Protocol for Wireless Sensor Networks

Author(s): Neng-Chung Wang, Chao-Yang Lee, Ming-Fong Tsai, Hsu-Fen Fu, Wei-Jung Hsu

(5) **Paper ID: ICGEC-2023-B14**

Paper Title: Image Captioning with Global Information Enhanced Image Representation Author(s): Xun Wang, Yanyan Liu, Huanyu Liu, Dan Guo, Jia Zhai, Junbao Li

(6) Paper ID: ICGEC-2023-B19

Paper Title: Intellectual Property Protection of Image Processing Models with Watermarking Author(s): Yuxuan Du, Linlin Tang, Qing Liao, Yang Liu, Shuhan Qi, Jiajia Zhang

(7) **Paper ID: ICGEC-2023-A19**

Paper Title: The implementation of the graduation thesis topic selection Author(s): Xiumei Tian, Yanhong Jiang

(8) Paper ID: ICGEC-2023-A17

Paper Title: A study on the Application of Immersive Technology in the Art Exhibition Exploring Shan Hai Jing'

Author(s): Qian Jiang

(9) Paper ID: ICGEC-2023-B17

Paper Title: Design technology of multi-AGV Warehouse Intelligent Scheduling Optimization Control System

Author(s): YanPeng Pan, XueTing Zhang, FuQuan Zhang, LiLi Tan, LiJie Yang, Jun Ma

Session B07: Optimization Algorithms and Applications (II)

Date: October 8, 2023 (Sunday)

Time: 09:00-10:30

VooV Meeting ID: 972-088-765

Session Chair: Prof. Thi-Kien Dao, Fujian University of Technology, China

(1) Paper ID: ICGEC-2023-B21

Paper Title: A multi-objective wolfpack algorithm based on randomized wandering and hierarchical learning

Author(s): Wenfei Dong, Runxiu Wu, Feng Lv, Jia Zhao

(2) Paper ID: ICGEC-2023-B23

Paper Title: Dynamic Detection of multi-forked Tree Gantry Anomaly Based on Isolated Forest Algorithm

Author(s): Yue Xing, Fumin Zou, Feng Guo

(3) Paper ID: ICGEC-2023-B34

Paper Title: A novel crossover operator based on Grey Wolf Optimizer applied to feature selection problem

Author(s): Wenbo Guo, Yue Sun, Xinping Pang, Lin Yang, Lei Yu, Qi Zhang, Ping Yang, Jeng-Shyang Pan, Chaoyang Pang

(4) **Paper ID: ICGEC-2023-B37**

Paper Title: Improving BFGO with Apical Dominance-Guided Gradient Descent for Enhanced Optimization

Author(s): Hao-Jie Shi, Feng Guo, Yang-Zhi Chen, Lin Xu, Ruo-Bin Wang

(5) Paper ID: ICGEC-2023-B36

Paper Title: Probability Vector Enhanced Tumbleweed Optimization Algorithm Author(s): Yang-Zhi Chen, Ruo-Bin Wang, Hao-Jie Shi, Rui-Bin Hu, Lin Xu

(6) **Paper ID: ICGEC-2023-B60**

Paper Title: DOA Estimation of Special Non-uniform Linear Array Based on Quantum Honey Badger Search Algorithm

Author(s): Yaqing Zheng, Hongyuan Gao, Yulong Qiao

(7) Paper ID: ICGEC-2023-B71

Paper Title: Machine Learning Algorithm-based Prediction of Hyperglycemia Risk after Acute Ischemic Stroke

Author(s): Yating Hao, Xuan Zhang, Lihua Dai

(8) Paper ID: ICGEC-2023-B73

Paper Title: Fick's law algorithm with Gaussian mutation: design and analysis

Author(s): Haonan Li, Shu-Chuan Chu, Saru Kumari, Tsu-Yang Wu

Session B08: Artificial Intelligence and Applications (II)

Date: October 8, 2023 (Sunday)

Time: 10:30-12:00

VooV Meeting ID: 578-049-402

Session Chair: Dr. Xiaopeng Wang, VSB-Technical University of Ostrava, Czech Republic

(1) **Paper ID: ICGEC-2023-A05**

Paper Title: A New Membrane Algorithm based on Quasi-Affine TRansformation Evolution for Optimization Problems

Author(s): Xiaopeng Wang, Václav Snášel, Seyedali Mirjalili, Shu-Chuan Chu, Hisham A. Shehadeh

(2) Paper ID: ICGEC-2023-B55

Paper Title: Research on Production Line Balance Optimization Based on Improved PSO-GA Algorithm

Author(s): PEI Zhijian, DENG Zhihui, SHI Xinmin

(3) **Paper ID: ICGEC-2023-B32**

Paper Title: PSR-GAN: Unsupervised Portrait Shadow Removal Using Evolutionary Computing Author(s): Tianlong Ma, Longfei Zhang, Xiaokun Zhao, Zixian Liu

(4) **Paper ID: ICGEC-2023-A04**

Paper Title: The Role of Reputation—Aspiration in the Evolution of Cooperation Author(s): Xin Ge, Yue Liu, Lili Li

(5) **Paper ID: ICGEC-2023-A20**

Paper Title: Class Incremental Learning Method for Hyperspectral Images Based on Real Data Playback Mechanism and Classification Network Optimization

Author(s): Xiaodong Liu, Siqi Wang, Huanyu Liu, Junbao Li

(6) **Paper ID: ICGEC-2023-A08**

Paper Title: Efficient Weighted Sequence Pattern Mining Author(s): Shaotao Chen, Jiahui Chen, Shicheng Wan

(7) Paper ID: ICGEC-2023-A10

Paper Title: Evaluation of Deep Clustering for Assessing Undergraduate Understanding in Ideological and Political Education: Data-Driven Analytics

Author(s): Miaomiao Zhao, Xiaoyu Dong

(8) Paper ID: ICGEC-2023-A11

Paper Title: Lightweight Dialog State Tracking Methods Based on RoBERTa for Resource Constrained Dialog Systems

Author(s): Dapeng Li, Shuliang Wang, Boxiang Zhao, Zhiqiang Ma, Xin Xin

Session B09: Information Technology and Applications (II)

Date: October 8, 2023 (Sunday)

Time: 13:30-15:30

VooV Meeting ID: 441-070-432

Session Chairs: Dr. Lingping Kong, VSB-Technical University of Ostrava, Czech Republic

Dr. Zhonghai Bai, VSB-Technical University of Ostrava, Czech Republic

(1) **Paper ID: ICGEC-2023-A07**

Paper Title: A Hybrid Algorithm ACS-GA for Solving the Traveling Salesman Problem Author(s): Zhonghai Bai, Václav Snášel, Vo Bay, Lingping Kong, Xiaopeng Wang

(2) Paper ID: ICGEC-2023-B04

Paper Title: Generalization of Relay Node Deployment Problem for Wireless Sensor Network on jMetal

Author(s): Lingping Kong, Petr Gajdos, Jeng-Shyang Pan, Václav Snášel

(3) Paper ID: ICGEC-2023-B33

Paper Title: Chebyshev Inequality and the Identification of Genes Associated with Alzheimer's Disease

Author(s): Lei Yu, Xueli Tan, Delin Luo, Lin Yang, Xinping Pang, Zhengchao Shan, Chengjiang Zhu, Jeng-Shyang Pan, Chaoyang Pang

(4) **Paper ID: ICGEC-2023-A21**

Paper Title: Student-t Process Prior Variational Autoencoder for Anomaly Detection in Time Series Author(s): Xiaowei Fu, Lei Bao

(5) **Paper ID: ICGEC-2023-B10**

Paper Title: Research on the Structure Design of Body Clothing for Elderly Women Author(s): Tian-tian Xu, Ke-ke Sun

(6) Paper ID: ICGEC-2023-B15

Paper Title: Analysis of half-space acoustic radiation in 3D based on fast multipole boundary element method

Author(s): Bing-rong Zhang

(7) Paper ID: ICGEC-2023-B20

Paper Title: SE(3)-Diffusion: An Equivariant Diffusion Model for 3D Point Cloud Generation Author(s): Yong Peng, Linlin Tang, Qing Liao, Yang Liu, Shuhan Qi, Jiajia Zhang

(8) Paper ID: ICGEC-2023-B25

Paper Title: A Feature Matching Method based on Rolling Guided Filter and Collinear Triangular Matrix Optimal Transport

Author(s): Liu Xiaoming, Yuan Yizhao, Li Qiqi, Zhao Huaqi

(9) Paper ID: ICGEC-2023-B50

Paper Title: Prediction of Sepsis Mortality Risk Based on Ensemble Learning Algorithm FBTV Author(s): Xuan Zhang, Lixin Huang, Teng Fu, Yujia Wu

(10) Paper ID: ICGEC-2023-B09

Paper Title: Structural Analysis of Contact System of High-Voltage DC Relay under Electrical-Thermal-Structural Coupling

Author(s): Chao Liang, Guo-Fei Yu, Jin-Liang Jiang, Jun-Xiong Liu