PROCEEDINGS OF SPIE

Third International Conference on Electronic Information Engineering and Data Processing (EIEDP 2024)

M. A. Jabbar
Pascal Lorenz
Editors

15–17 March 2024
Kuala Lumpur, Malaysia

Organized by
Nanchang University (China)

Sponsored by
AEIC—Academic Exchange Information Centre (China)

Published by
SPIE

Volume 13184

Part One of Two Parts

Proceedings of SPIE 0277-786X, V. 13184

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Third International Conference on Electronic Information Engineering and Data Processing (EIEDP 2024),
edited by M. A. Jabbar , Pascal Lorenz, Proc. of SPIE Vol. 13184, 1318401
© 2024 SPIE · 0277-786X · doi: 10.1117/12.3037182

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at SPIEDigitalLibrary.org.

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:
Author(s), "Title of Paper," in *Third International Conference on Electronic Information Engineering and Data Processing (EIEDP 2024)*, edited by M. A. Jabbar , Pascal Lorenz, Proc. of SPIE 13184, Seven-digit Article CID Number (DD/MM/YYYY); (DOI URL).

ISSN: 0277-786X
ISSN: 1996-756X (electronic)

ISBN: 9781510680531
ISBN: 9781510680548 (electronic)

Published by
SPIE
P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time)
SPIE.org
Copyright © 2024 Society of Photo-Optical Instrumentation Engineers (SPIE).

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of fees. To obtain permission to use and share articles in this volume, visit Copyright Clearance Center at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher.

Printed in the United States of America by Curran Associates, Inc., under license from SPIE.

Publication of record for individual papers is online in the SPIE Digital Library.

SPIE. DIGITAL LIBRARY
SPIEDigitalLibrary.org

Paper Numbering: A unique citation identifier (CID) number is assigned to each article in the Proceedings of SPIE at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

- The first five digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B … 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

xvii *Conference Committee*

Part One

ELECTRONIC DEVICE DESIGN AND PERFORMANCE SIMULATION

13184 02 **Utilizing active sound sources to locate submarine cable routes** [13184-236]

13184 03 **Detection for missing small sized parts based on machine vision** [13184-31]

13184 04 **Design and research of an improved regular hexagonal planar UWB antenna** [13184-328]

13184 05 **Design of a dual synchronous buck controller** [13184-211]

13184 06 **Research on the reliability of electronic components for coal mining machines** [13184-40]

13184 07 **Scheduling algorithm for fidelity of quantum gate circuits** [13184-164]

13184 08 **Simulation analysis and optimization research on airflow organization in typical ship meeting rooms** [13184-128]

13184 09 **A digital oscilloscope based on the principle of equivalent sampling** [13184-311]

13184 0A **Research on welding quality prediction methods** [13184-341]

13184 0B **Bearing fault diagnosis method based on improved DenseNet with small samples** [13184-314]

13184 0C **Frequency-invariant beamforming for sparse arrays based on principal component analysis** [13184-331]

13184 0D **Research on a linear fiber optical sensor used for leakage detection of aircraft duct** [13184-110]

13184 0E **Research on indoor Bluetooth positioning based on transformer** [13184-117]

13184 0F **Life prediction for power transformers with truncated odd Weibull distribution family** [13184-65]

13184 0G **Research on fault diagnosis of nonlinear system based on iterative learning** [13184-212]

13184 0H **Tracking the photovoltaic maximum power point using an enhanced whale algorithm and a BP neural network** [13184-85]

13184 0I **Short-term prediction of photovoltaic power generation based on sand cat group optimization** [13184-78]

13184 0J **Onboard remote high-definition collaborative troubleshooting and flight decision-making assistance device** [13184-297]

13184 0K **Design of ceiling light with air quality monitoring and heat dissipation structure based on duct technology** [13184-13]

13184 0L **Research and design of a miniaturized tri-notched ultra-wideband antenna** [13184-260]

13184 0M **High-precision, miniaturized FBG gas flow sensor** [13184-184]

13184 0N **Research on new power business threat modeling method based on Bayesian networks** [13184-324]

13184 0O **Research on an optical fiber sensor for real-time monitoring of gas pressure inside Lithium batteries** [13184-83]

13184 0P **Design and implementation of a low-cost and small-size underwater Acoustic modem** [13184-75]

13184 0Q **The application research of the reliability growth model in the step-down storage life assessment of assembly-level products** [13184-34]

13184 0R **Research and verification of the reliability of spacecraft stored harness** [13184-216]

13184 0S **Research on aluminum profile surface defect detection based on an improved YOLOv5 algorithm** [13184-120]

13184 0T **A denoising method for acoustic emission signals based on discrete wavelet transform in WEDM** [13184-59]

13184 0U **Research on digital twin simulation of prefabricated steel structure substation** [13184-30]

13184 0V **Design and performance analysis of permanent magnet damping chair** [13184-118]

13184 0W **Pit leakage detection based on the ground-space electromagnetic method** [13184-66]

13184 0X **Optimization of production and processing of ship fittings based on improved Cuckoo search algorithm** [13184-251]

13184 0Y **Research on transformer fault diagnosis method based on feature selection and random forest** [13184-133]

13184 0Z **An analog circuit soft fault diagnosis method based on Boruta feature selection and LightGBM model** [13184-223]

13184 10 **Demodulation algorithm based on Fibonacci and cross-correlation for Fabry-perot sensor** [13184-7]

13184 11 **Design of wide dynamic range current measurement card** [13184-5]

13184 12 **UAV tracking and recognition method of transmission tower surface defects based on edge computing** [13184-274]

13184 13 **The influence of square structure loading on the low frequency performance of the electric field probe antenna** [13184-183]

13184 14 **Extraction and research of human acupoint outliers based on bioelectrical impedance** [13184-227]

13184 15 **Accelerometer signals denoising without clean training data based on Noise2Noise approach** [13184-27]

13184 16 **FPGA-based high throughput LK optical flow acceleration design** [13184-46]

13184 17 **Research on a novel strategy of vibration isolation for time-variant payload** [13184-57]

13184 18 **Modeling and real-time simulation interaction of PV station based on CPU-FPGA** [13184-278]

13184 19 **Vibration suppression of linear motor platform based on input shaping** [13184-146]

13184 1A **Design of energy storage converter based on i_p-i_q current detection algorithm and adaptive trap** [13184-196]

13184 1B **Enhancing expressway electromechanical device maintenance through a quantitative AHP-based decision-making model** [13184-288]

13184 1C **Time-domain waveform reproduction test method based on energy spectrum** [13184-283]

13184 1D **Open microstrip resonant ring sensor for measuring density-independent moisture content of rapeseed** [13184-219]

ELECTRONIC INFORMATION RECOGNITION AND SIGNAL PROCESSING

13184 1E **A text classification model based on BERT and TextCNN** [13184-96]

13184 1F **Temporal GCN-based emotional recognition with EEG series in graduate employment pressure music therapy** [13184-147]

13184 1G **Using the equal sentiment enhancement with distribution (ESED) algorithm in text sentiment analysis: predicting customers purchasing intention (CPI) for IT services on freelance platforms** [13184-98]

13184 1H **Research on fine-grained image recognition method based on mutiscale information fusion** [13184-63]

13184 1I **Task quality optimization in budget-limited spatial crowdsourcing** [13184-60]

13184 1J **A new fully convolutional neural network architecture with text kernel for offline handwritten Chinese text recognition** [13184-16]

13184 1K **Network rumor propagation model based on the Logistic model** [13184-201]

13184 1L **RVTS: retrieval-based text-to-speech** [13184-125]

13184 1M **S2RU: scene semantic reconstruction for unmanned ground vehicle virtual-real integration** [13184-55]

13184 1N **Urban gas pipeline NER: leveraging semantic similarity for knowledge extraction** [13184-18]

13184 1O **A backbone network mixed with PVT and mixer for cross-view image geo-localization** [13184-24]

13184 1P **A video inpainting method based on deep flow estimation** [13184-168]

13184 1Q **A stereo matching method applied in blind spot detection of the field of view** [13184-281]

13184 1R **Interactive segmentation based on deformable convolution and context feature calibration** [13184-26]

13184 1S **Incremental learning for human action recognition in Doppler radar** [13184-189]

13184 1T **Research on real-time fusion of 2D raster maps based on feature point matching** [13184-298]

13184 1U **Improvements in natural language understanding using deep learning** [13184-321]

13184 1V **Research on interactive multimodel ICKF doppler-based localization methods** [13184-272]

13184 1W **Cantonese speech separation based on cross-modal feature fusion** [13184-121]

13184 1X **Research on large model table question answering method based on thought of chain and vector matching filtering** [13184-208]

13184 1Y **CNN-BiLSTM model based on multilevel and multiscale feature extraction for sentiment analysis on social platforms** [13184-302]

13184 1Z **Edge guidance unetr for malignant tumor segmentation in breast ultrasound image** [13184-10]

13184 20 **Clustering ensemble based on multiscale cluster reliability** [13184-144]

13184 21 **Personalized lane change decision model based on long short-term memory network** [13184-76]

13184 22 **Denoising 1SPP Monte Carlo renderings based on human visual perception** [13184-56]

13184 23 **Research on the propagation characteristics of UWB radar signal in coal and human target positioning method** [13184-52]

13184 24 **An improved cylinder fitting method** [13184-22]

13184 25 **Research on student behavior portrait and early warning based on campus big data** [13184-104]

13184 26 **Research on recommendation algorithm for geographical location points of interest based on deep learning** [13184-243]

13184 27 **Research on intelligent perception of computer vision environment for autonomous driving in complex environment based on cloud computing and improved Bayesian algorithm** [13184-37]

13184 28 **Chinese complaint text classification method based on pre-trained language model** [13184-174]

13184 29 **Tolerance optimization method based on solidworks** [13184-115]

13184 2A **Multimodal sentiment analysis of heterogeneous bimodal interactions** [13184-205]

13184 2B **Identifying fast moving consumer goods based on deep learning** [13184-257]

13184 2C **Lightweight improvement and global channel pruning tomato seedling grading model based on lightweight improvement and global channeling** [13184-263]

13184 2D **Technical talent training effectiveness: vocal versus visual feedback** [13184-220]

13184 2E **Research on automatic construction of a multiresolution 3D design knowledge graph for maritime vessels** [13184-178]

13184 2F **Research on image features extraction and classification based on transformer model** [13184-124]

13184 2G **Research on practice and correction methods for splicing errors of point clouds in ground mounted 3D scanners** [13184-237]

13184 2H **Deep space inter-satellite laser communication using compressive interferometry measurement** [13184-284]

13184 2I **Grassland plant identification based on unmanned aerial vehicle imagery and improved YOLOv8 network** [13184-12]

13184 2J **Research on transmission method of information freshness based on PLC** [13184-176]

13184 2K **The book recommendation algorithm based on knowledge graph and collaborative filtering** [13184-307]

13184 2L **Visual attention estimation and cascade region enhancement detection strategy for intelligent vehicles** [13184-50]

13184 2M **Fine-grained classification of ship images based on attention mechanism and contrast learning** [13184-255]

13184 2N **Research on sentiment analysis of Chinese online comments based on BERT-BiLSTM-DPCNN model** [13184-72]

13184 2O **Ontology mapping-based feedback evaluation method for medical information** [13184-294]

13184 2P **Augmented reality campus navigation for both indoor and outdoor spaces based on ARCore** [13184-215]

13184 2Q **IMLRLS: a method for ship collision avoidance by integrating meta-learning with reinforcement learning** [13184-154]

13184 2R **Research topic heterogeneous information aggregation processing method based on cloud computing** [13184-275]

13184 2S **Channel insensitive RFFI scheme designed for LTE-V2X** [13184-300]

13184 2T **An efficient parallel optimization method for large model based on cloud computing** [13184-186]

13184 2U **An open CV-based approach to mood regulation** [13184-191]

13184 2V **Overview of image segmentation methods based on deep learning** [13184-247]

13184 2W **A novel knowledge graph construction method of coal mine safety equipment domain** [13184-193]

ADVANCED ALGORITHMS AND DATA MANAGEMENT ANALYSIS

13184 2X **Visual analysis of Chinese pharmacovigilance studies based on clustering algorithm** [13184-48]

13184 2Y **A dynamic data access control model supporting multi-link transfer and multilevel inheritance** [13184-240]

13184 2Z **Reducing redundancy of skills in hierarchical reinforcement learning with offline data** [13184-79]

13184 30 **Detection and estimation of gas hydrates using FWI and inversion with seismic data processing** [13184-19]

13184 31 **Design and simulation of an algorithm for evaluating the acceptance effect of online literature based on data mining technology** [13184-330]

13184 32 **Dynamic template-based data processing system for database table changes** [13184-20]

13184 33 **Zero-shot data-to-text generation via dual learning** [13184-327]

13184 34 **Cosine distance measure in Dempster-Shafer evidence theory based on fractal entropy** [13184-179]

13184 35 **Introduction of high-speed data acquisition system scheme based on FPGA** [13184-29]

13184 36 **Genetic algorithm-based fMRI group-constrained independent component analysis** [13184-6]

13184 37 **Distance education database management based on WEB content recommendation algorithm** [13184-280]

13184 38 **Design of SOPC system for data acquisition card used in high-power laser aging** [13184-195]

13184 39 **Back analysis of rock mechanical parameters of underground caverns based on multilayer perceptron regression algorithm** [13184-244]

13184 3A **Research on the application of data mining technology in the evaluation and decision of network security level protection** [13184-61]

13184 3B **Selection algorithm of excellent talents in large enterprises based on entropy weighted clustering mining** [13184-214]

13184 3C **Optimization strategy modelling based on data analysis and linear programming** [13184-161]

13184 3D **Research on bridge review guideline algorithm based on vector method and collaborative filtering method** [13184-17]

13184 3E **Research on multicast routing algorithms** [13184-82]

13184 3F **Differential privacy protection of telematics data based on federated and augmented learning** [13184-149]

13184 3G **Radar pulse sequence search method based on multiparameter decision** [13184-285]

13184 3H **Federated continual learning based on weight self-optimization algorithm in non-IID** [13184-49]

13184 3I **Reinforcement learning obstacle avoidance algorithm for autonomous driving considering driving risks** [13184-210]

13184 3J **Research on English distance education network resource management system based on big data mining technology** [13184-293]

13184 3K **Research on quick access recorder data preprocessing based on kernel extreme learning machine and wavelet transform** [13184-203]

13184 3L **Lidar SLAM algorithm based on bag of words loop detection** [13184-239]

Part Two

13184 3M **Slender object detection algorithm based on improved YOLOv8 for intelligent driving scenarios** [13184-309]

13184 3N **Visual-feature-preserved triangular mesh simplification algorithm** [13184-74]

13184 3O **Research on AIS data analysis application in port management** [13184-69]

13184 3P **Application of HarmonyOS in wind tunnel data collection system** [13184-292]

13184 3Q **Crack detection algorithm ES-YOLOX in complex backgrounds** [13184-109]

13184 3R **Research on action recognition algorithm of aging square dance app based on image deep learning** [13184-139]

13184 3S **Optimal allocation of risk probability based on improved PSO algorithm** [13184-90]

13184 3T **A bibliometric analysis of patents on CNC machining technology** [13184-106]

13184 3U **Dynamic verification of data integrity on cloud based on Chameleon hash algorithm** [13184-155]

13184 3V **Adaptive data compression for power line carrier services** [13184-286]

13184 3W **Research on braking intention recognition algorithm for pure electric vehicles based on adaboost** [13184-233]

13184 3X **Big data analytics in Bibliometric investigations: unraveling consumer intentions for electric vehicles from 2010 to 2023** [13184-245]

13184 3Y **Research and implementation of cooperative computing and simulation results management platform for electromagnetic transients** [13184-234]

13184 3Z **Construction cost prediction and optimization algorithm based on big data analytics and machine learning** [13184-175]

13184 40 **Origin-based experimental data processing for Newton's ring measurement of lens radius of curvature** [13184-188]

13184 41 **Quantitative analysis of collective earthquake evacuation behavior in large cities post-earthquake** [13184-308]

13184 42 **The study on the illumination data processing of cruise ship cabin based on lumen method and point-by-point method** [13184-47]

13184 43 **Unveiling the predictive power: intelligent peel strength prediction using structured data model** [13184-8]

13184 44 **A self-extraction method for carbon emission spatial pattern differences based on incremental learning and electricity big data** [13184-295]

13184 45 **Algorithm for carbon emission peak prediction and emission reduction potential analysis based on convolutional neural network and multidimensional power big data** [13184-282]

13184 46 **Simulation of medium and long term vector data partition scheduling in power selling side based on improved weighted rough set** [13184-270]

13184 47 **Research on data quality governance technology for power edge resources based on smart IoT** [13184-273]

13184 48 **Modeling of flood data in upstream reservoirs of substations based on attentional long and short-term memory deep networks** [13184-200]

13184 49 **Study on data acquisition and storage with Nand flash technique in spacecraft** [13184-253]

13184 4A **Asset wall risk assessment based on fault trees and Bayesian networks** [13184-94]

13184 4B **The training and inference performance optimization of Resnet50 on CUDA RTX 4090 GPU using DALI and AMP** [13184-131]

COMPUTER SIMULATION AND INTELLIGENT SYSTEM DESIGN

13184 4C **Design and implementation of mobile storage scanner based on RFID technology** [13184-107]

13184 4D **Preliminary design of dynamic electronic fence and auxiliary collision avoidance system for key ships** [13184-185]

13184 4E **The further fully convolutional networks for medical image segmentation** [13184-21]

13184 4F **Multiview attention-based graph convolutional networks for course recommendation in MOOCs** [13184-156]

13184 4G **3D hand feature occlusion network based on deep learning** [13184-127]

13184 4H **Impossible differential properties of Rijndael-like cipher** [13184-248]

13184 4I **Retina vessel segmentation based on dual encoder and edge detection** [13184-279]

13184 4J **2048 game implementation on RISC-V** [13184-9]

13184 4K **Design of spark movie recommendation system based on Latent factor model** [13184-23]

13184 4L **Research on the design and construction of urban landscape ecological environment monitoring platform under distributed verification technology** [13184-181]

13184 4M **ISSA-TCNformer-based server anomaly detection** [13184-130]

13184 4N **Research on operations and maintenance behavior audit based on DRL** [13184-171]

13184 4O **Web service fault diagnosis based on graph convolutional networks** [13184-100]

13184 4P **Design and implementation of a 5G signaling parsing system using HTTP/2 protocol** [13184-304]

13184 4Q **Cooperation network analysis of strength training for physical health in older adults** [13184-262]

13184 4R **Dynamic optimization approach for service composition in cloud manufacturing amidst stochastic disturbances** [13184-313]

13184 4S **CWEInject: build fuzzer benchmark through bug templates** [13184-122]

13184 4T **Design and implementation of fine-grained dimming system based on convolutional neural network** [13184-123]

13184 4U **Masg: masked auto-encoder for signed graph** [13184-95]

13184 4V **Decomposed gate attention graph convolutional networks for skeleton-based action recognition** [13184-301]

13184 4W **Image denoising network based on involution kernel** [13184-249]

13184 4X **Stage division of research evolution based on scientific change theory and science mapping software** [13184-209]

13184 4Y **Design and research of electric vehicle DC charging pile monitoring system based on LabVIEW** [13184-204]

13184 4Z **A fuzz testing technique based on determining valid fields** [13184-97]

13184 50 **Research and practice on large-scale electromagnetic transient task scheduling platform technology based on supercomputing** [13184-2]

13184 51 **Modeling and optimal dispatch of park-level energy systems considering renewable energy uncertainties** [13184-15]

13184 52 **Research on optimized scheduling of cloud-edge collaboration resources for industrial internet platform in home appliance industry** [13184-89]

13184 53 **TL-GRN: triplet loss-grouped reversible network** [13184-39]

13184 54 **Multivehicle cooperative combined navigation system based on GNSS visual inertia** [13184-276]

13184 55 **Design of USV-based information control system for a certain large-scale high-speed USV** [13184-84]

13184 56 **Design and implementation of a multipoint temperature acquisition system based on WiFi** [13184-213]

13184 57 **Development of the calculation system for gear test parameters based on MATLAB GUI** [13184-332]

13184 58 **Design of an optimized car parking finder system utilizing Dijkstra's algorithm** [13184-119]

13184 59 **Intelligent aircraft combat game machine design using Cortex-M0 on field programmable gate array** [13184-153]

13184 5A **Real-time detection system for load variation of DC brushed motor based on deep learning** [13184-145]

13184 5B **Research on motion path planning of manipulator based on fast search random tree algorithm** [13184-250]

13184 5C **Synchronous of higher-order networked multiagents systems with negative relative delay** [13184-194]

13184 5D **A model design of learner state change in E-learning platform based on finite state machine** [13184-142]

13184 5E **Prediction of Olympic medal count for USA based on robust time series model and computer implementation** [13184-165]

13184 5F **Social network analysis based on social networks journal co-authorship** [13184-108]

13184 5G **Research on binocular camera ranging system based on FPGA** [13184-169]

13184 5H **E-commerce recommender system based on sentiment multilabel classification** [13184-53]

13184 5I **OFDM performance optimization based on indexed modulation** [13184-172]

13184 5J **Design of remote health monitoring system based on narrow band Internet of Things** [13184-310]

13184 5K **Reliability index analysis of subway drainage system based on fault tree method** [13184-232]

13184 5L **Improved high-resolution network for palmprint principal line extraction** [13184-150]

13184 5M **The application of VR panoramic technology in B&B design strategies taking the B&B in Southern Anhui as an example** [13184-116]

13184 5N **Research on automatic translation of proper nouns in college English using machine aided technology** [13184-4]

13184 5O **Design of intelligent elderly care robot system based on ROS** [13184-103]

13184 5P **Design of impedance measurement control and calibration software for 128 channels** [13184-192]

13184 5Q **Design of a deep-learning-based holographic diagnosis and treatment electromechanical vision system for traditional Chinese medicine** [13184-87]

13184 5R **Design of parking assist system based on FPGA** [13184-54]

13184 5S **Design of real time monitoring and intelligent analysis system for fiber optic sensor networks driven by big data** [13184-269]

13184 5T **Dynamics and synchronization of a fractional-order hyperchaotic financial system** [13184-3]

NEURAL NETWORK APPLICATION AND INTELLIGENT MEASUREMENT AND CONTROL

13184 5U **Momentum prediction model based on BP neural network** [13184-111]

13184 5V **Prediction and optimization of drilling loss based on GABP neural network** [13184-114]

13184 5W **Photovoltaic power prediction based on optimized BP neural network** [13184-112]

13184 5X **Annular gap width measurement based on sub-pixel edge fitting** [13184-206]

13184 5Y **Research on insitu monitoring method for ceramic additive manufacturing process based on YOLOv3** [13184-32]

13184 5Z **PCB defects detection model based on YOLOv8n-SM** [13184-138]

13184 60 **State-only imitation learning via generative adversarial and inverse dynamics model** [13184-81]

13184 61 **Automatic detection of wood cracks based on improved YOLOv8 algorithm** [13184-202]

13184 62 **Simulation and prediction study based on Lotka-Volterra model and grey neural network** [13184-143]

13184 63 **L1-TSFW: attention-based CNN AND BI-LSTM model for network intrusion detection** [13184-198]

13184 64 **Research on pedestrian detection method for commercial vehicles of blind zone based on improved YOLOv5s** [13184-221]

13184 65 **Intelligent spraying equipment design based on Markerbot structure** [13184-224]

13184 66 **Research on feature surface thickness prediction based on transformer deep-learning-networks** [13184-170]

13184 67 **A lightweight intrusion detection method for intelligent substations** [13184-158]

13184 68 **An optimization method for enterprise user anomaly detection based on FCM** [13184-141]

13184 69 **Research on multidimensional evaluation and prediction modelling** [13184-166]

13184 6A **FOD-DETR: improved DETR-based foreign object detection for coal mine conveyor** [13184-113]

13184 6B **Contrastive learning based on dual-path models** [13184-187]

13184 6C **Dam surface crack detection based on SE-YOLOv7** [13184-299]

13184 6D **Dynamic process model optimization method based on concept drift detection** [13184-199]

13184 6E **Tempofusion: advancing 3D object detection with temporal-spatial multimodal fusion** [13184-261]

13184 6F **Recognition and prediction of SMT solder joint defects based on YOLOV5** [13184-36]

13184 6G **PRWSF-ABSBL: a fast direction of arrival estimation method based on sparse Bayesian learning and partial relaxation approach** [13184-132]

13184 6H **FF-LSTM: phenotype prediction based on feature fusion** [13184-67]

13184 6I **Worldlight: mastering regional traffic signal control with discrete world models** [13184-126]

13184 6J **Smart contract fuzzy testing vulnerability detection method based on MDP and simulated annealing** [13184-256]

13184 6K **Network traffic prediction based on feature fusion spatio-temporal graph convolutional network** [13184-102]

13184 6L **WOA-XGBoost-based financial statement fraud detection** [13184-152]

13184 6M **Small traffic sign detection method based on improved YOLOv8m** [13184-45]

13184 6N **Cross-modal deep learning for predicting material performance: example of thermal conductivity in thermal barrier coatings** [13184-242]

13184 6O **Performance comparison and optimization of deep learning models based on transfer learning** [13184-80]

13184 6P **A model for forecasting flight advance booking demand with competition effect** [13184-157]

13184 6Q **Tool wear prediction based on hybrid feature selection** [13184-41]

13184 6R **Research on multistation collaborative passenger flow control strategy of urban rail transit** [13184-14]

13184 6S **Improved lightweight vehicle detection algorithm based on YOLOv5s** [13184-91]

13184 6T **Research on deformation detection algorithm of cold water pipe based on improved point cloud registration** [13184-296]

13184 6U **Design of smart home service robot based on STM32F103** [13184-148]

13184 6V **Advanced detection of malicious transactions in Ethereum unraveling complex asset transfer patterns** [13184-182]

13184 6W **Prescribed-time formation control of multiple underactuated autonomous surface vehicles bearing-only and single distance measurement** [13184-222]

13184 6X **Bearing-only formation control for nonholonomic multiagent systems within prescribed setting time** [13184-231]

13184 6Y **A training strategy to optimize the performance of target detection model** [13184-92]

13184 6Z **Design of monocular vision field-assisted positioning for a kid-sized humanoid soccer robot** [13184-93]

13184 70 **Strip surface defect detection algorithm with improved YOLOv5** [13184-217]

13184 71 **White-light endoscopic colorectal lesion detection based on improved RT-DETR** [13184-62]

13184 72 **Research on manipulators controlling and planning based on transfer learning** [13184-317]

13184 73 **Wafer defect detection based on improved YOLOv8** [13184-228]

13184 74 **YOLOv7-based defect detection of automotive aluminium alloy lined carbon fibre fully winding hydrogen storage composite cylinder** [13184-42]

13184 75 **U2Net pipeline crack detection method with improved self-attention** [13184-305]

13184 76 **A new railway foreign object intrusion detection method** [13184-258]

13184 77 **Improving the underwater object detection algorithm for YOLOv5** [13184-68]

13184 78 **Conceptual modeling of equipment support command and control process based on unified modeling language** [13184-134]

13184 79 **Bilateral branch network-based academic performance prediction** [13184-35]

13184 7A **FFTC: a DDoS attack detection and defense mechanism based on flow feature and threshold control in SDN** [13184-151]

Conference Committee

General Conference Chairs

Valentina Emilia Balas, Aurel Vlaicu University of Arad (România)
Junfeng Qu, Clayton State University (United States)
Chunquan Li, Nanchang University (China)

Publication Chairs

M. A. Jabbar, Vardhaman College of Engineering (India)
Pascal Lorenz, University of Haute Alsace (France)

Technical Program Committee Chairs

Jingshan Huang, University of South Alabama (United States)
Ke-Lin Du, Concordia University (Canada)
Angela Lee Siew Hoong, Sunway University (Malaysia)

Organizing Committee Chairs

Haisheng Li, Beijing Technology and Business University (China)
Por Lip Yee, Universiti Malaya (Malaysia)
Yunjun Yu, Nanchang University (China)

Technical Program Committee Members

Burra Venkata Durga Kuma, Xiamen Universiti Malaya (Malaysia)
Imran Ahmed, IMSciences Peshawar (Pakistan)
Shuanghua Yang, Southern University of Science and Technology (China)
Xiangbin Yu, Nanjing University of Aeronautics and Astronautics (China)
Shuren Zhu, Guangdong University of Finance and Economics (China)
Zhongjun Ma, Guilin University of Electronic Technology (China)
Hejin Xiong, Wuhan University of Technology (China)
Ali Ukasha, Sebha University (Libya)
Bin Zi, Hefei University of Technology (China)
Zhanwen Liu, Chang'an University (China)
Zhaoxia Guo, Sichuan University (China)
K.P.N Jayasena, Sabaragamuwa University of Sri Lanka (Sri Lanka)
Naruephorn Tengtrairat, Payap University (Thailand)
Koh You Beng, Universiti Malaya (Malaysia)
Eyad M. ALazam, Yarmouk University (Jordan)
Zeyneb Kurt, Northumbria University (United Kingdom)

V. Rossano, University of Bari (Italy)

Organizing Committee

Joe Marie Dormido, Carlos Hilado Memorial State University (Philippines)
Mingyan Xiao, California State Polytechnic University (United States)
Paulo Batista, University of Aveiro (Portugal)
Georgios Theodoropoulos, Southern University of Science and Technology (United Kingdom)
D.Chimgee, National University of Mongolia (Mongolia)
Jinwei Wang, Nanjing University of Information Science and Technology (China)
Gong Zhang, Nanjing University of Aeronautics and Astronautics (China)
Abdel-Badeeh M. Salem, Ain Shams University (Egypt)
Phaklen Ehkan, Universiti Malaya Perlis (Malaysia)