

2024 International Conference on Consumer Electronics - Taiwan (ICCE-Taiwan 2024)

**Taichung, Taiwan
9-11 July 2024**



**IEEE Catalog Number: CFP24CCC-POD
ISBN: 979-8-3503-8685-1**

**Copyright © 2024 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP24CCC-POD
ISBN (Print-On-Demand):	979-8-3503-8685-1
ISBN (Online):	979-8-3503-8684-4
ISSN:	2575-8276

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
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

A Master-Slave Flip-Flop with Double-Node-Upset Self-Recovery and Soft Error Tolerance Around Clock Edges.....	1
<i>Song Wang, Kazuteru Namba</i>	
Effect of RESET Operation of CiM with PCM on Recognition Accuracy.....	3
<i>Kento Yano, You Yin, Kazuteru Namba</i>	
A Fault-Tolerant Routing Method Without Creating Faulty Regions for Three-Dimensional Mesh NoCs.....	5
<i>Yota Kurokawa, Tsubasa Endo, Masaru Fukushi</i>	
Fault-Tolerant Adaptive Routing Algorithm for Mesh Network Based on the Turn Model.....	7
<i>Yasuyuki Miura, Naohisa Fukase, Tsukasa-Pierre Nakao</i>	
SievingNet: Ternary-Coded Binary Based Approximate Sieving for Neural Network.....	9
<i>Chia-Yu Chou, Tzu-Yi Hung, Tsung-Chu Huang</i>	
FloSIT: Float/Posit Coarchitecture Exploiting Value Location in Neural Network.....	11
<i>Yu-Liang Chen, Ren-Xiang Liu, Tsung-Chu Huang</i>	
Color Reproduction for Electronic Paper with Printed Color Filter Array.....	13
<i>Wen-Chung Kao, Po-Han Huang, Chi-Mao Hung</i>	
Data Compression for Advertising Billboards with Color Electronic Paper.....	15
<i>Wen-Chung Kao, Yu-Cheng Yu, Po-Han Huang, Hsiang-Yuan Cheng, Chiu-Kuei Huang</i>	
Motion-STUDIo : Motion Style Transfer Utilized for Dancing Operation by Considering Both Style and Dance Features.....	17
<i>Yuki Era, Ren Togo, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
Improved Shadow Removal by Generative Video Inpainting with Texture Refinement.....	19
<i>Yi-Wei Chang, Shih-Hsuan Yang</i>	
Speed Up H.266/VVC Inter-Coding by Background Analysis and Learning Models.....	21
<i>Yi-Chen Lo, Jiann-Jone Chen, Jui-Chen Lo</i>	
Influence Analysis of the Acoustic Radiation Characteristics of Circular Hole in Headphone Using Specific Flow Resistance.....	23
<i>Tzu-Hsuan Lei, Shu-Chien Wu, Kuang-Che Lo, Shu-Chi Liu, Yu-Cheng Liu</i>	
Innovative Interactive Display System for Exploring the Ancient Design Ingenuity of Chinese Porcelain Reflux Pots Via Hands-On Interaction.....	25
<i>Ming-Shu Tsai, Nan-Ching Tai, Kuang-Ting Huang</i>	
User Experience Evaluation of a Spherical Video-Based Virtual Reality Dementia Educational Program Among Older Adults with Mild Cognitive Impairment.....	27
<i>Lou-Hui Kuo, Ching-Hao Chang, Su-Fei Huang, Hsiu-Chun Chien, Chiu-Mieh Huang, Jong-Long Guo</i>	
An Adaptive Foreground Segmentation Based on Texture and Intensity Features.....	29
<i>Tsung-Han Tsai, Chun-Sheng Zheng</i>	

A Primer Study on Digital Hoarding Behavior in Cloud Storage.....	31
<i>Yi-Ting Huang, Yu-Chen Chen</i>	
Factors Influencing Purchase Intention in Social Media Live Shopping.....	33
<i>Yi-Ting Huang, Yu-Chiao Huang</i>	
Optimization of User-Centric Step Indicator for Digital Banking Interface.....	35
<i>Yi-Ting Huang, Tzu-Hsuan Wang, Cian-Yu Lin</i>	
Weather Sensor Data Manipulation Detection.....	37
<i>Sin-Man Wong, Cheng-Shian Lin, Chien-Chang Chen</i>	
Compressing Generative Adversarial Networks Using Improved Early Pruning.....	39
<i>Yi-Jyun Lin, Shih-Hsuan Yang</i>	
An Effective Respiratory Disease Diagnosis System Based on Dynamic Ratio Oversampling.....	41
<i>Xiang-Yuan Deng, Wai-Chi Fang</i>	
Hierarchical Federated Learning Using Client Clustering Under Non-IID Data	43
<i>Hiroto Iwata, Hiromichi Yajima, Shota Ono, Taku Yamazaki, Takumi Miyoshi</i>	
Courtroom Transcription: A Deep Learning Approach to Legal Terminology and Speaker Identification	45
<i>Syu-Jhih Jhang, Hsiang-Chuan Chang, Qiao-Yun Zhang, Chih-Yung Chang</i>	
Research of Image Generation Based on Knowledge Graph.....	47
<i>Ssu-Chi Kuai, Yao-Yu Liu, Ching-Tzu Lin, Wen-Hwa Liao</i>	
Recommendation System Using Knowledge Graphs	49
<i>Wen-Hwa Liao, Hsin-Fa Wen, Ssu-Chi Kuai</i>	
Improving Track Fastener and Rail Crack Detection Based on Data Enhancement of Defect Images	51
<i>Ming-An Chung, Pu-Chun Chen</i>	
Condition Monitoring System for Conveyor Belts Based on the Industrial Internet of Things	53
<i>Che-Min Lin, Shu-Hsien Chou, Po-Fong Li</i>	
Age of Information Minimization in UAV-Assisted Cluster-Based Data Collection for Internet of Things Networks*	55
<i>Yu-Ting Chou, Tzung-Shi Chen, Bo-Yuan Hsu, Zong-Ying Li</i>	
Platform for Road Defect Detection Based on Edge Computing Devices.....	57
<i>Jia-Yan Lin, Feng-Cheng Lin</i>	
High-Accuracy 3D Object Reconstruction by Video-Frame Selection	59
<i>Taiki Watanabe, Yasuyuki Miura</i>	
Board Design of Digital Chirp Generator for Earth Observation	61
<i>Yoshiaki Saito, Kazuteru Namba, Josaphat Tetuko Sri Sumantyo</i>	
A Research on Action Recognition Using Pose Estimation and the Parametric Eigenspace Method	63
<i>Hiroya Sakima, Yasuyuki Miura</i>	
Effectiveness Evaluation of Parallel Volunteer Computing.....	65
<i>Keiichi Inohara, Yota Kurokawa, Masaru Fukushi</i>	

Defect Detection with Adjustable Template for Screw Hole Checking.....	67
<i>Lam Tuyen Le, Bo-Shuo Zhang, Jing-Jay Yu, Wen-Pinn Fang</i>	
Research Article Style Transfer and Summarization Using Large Language Model.....	69
<i>Ying-Chun Lo, Jheng-Long Wu, Chiou Sung-Ting</i>	
Deep-Learning-Based Single-Channel Sound Source Separation in Noisy Environments	71
<i>Ken'Ichi Furuya, Iori Miura</i>	
Development of Dynamic Platform with MEMS Microphones Array Embedded for UAV Detection and Tracking	73
<i>Chin-Yi Cheng, Ilham Saputra, Chih-Wei Lin, Shi-Chen En</i>	
Innovative Multi-Channel Sound System Based on Multiple Mobile Devices with Frequency Domain Processing.....	75
<i>Chun-Chieh Yang, Chien-Wen Cheng</i>	
A Novel Electronic Lighting Driver for a UV-C LED Disinfection and Sterilization Lamp Applied to a DC Input Voltage Source	77
<i>Chun-An Cheng, Chien-Hsuan Chang, En-Chih Chang, Hung-Liang Cheng, Wen-Yi Yan, Long-Fu Lan</i>	
Quantum Consumer Technology: Advancements in Coherence, Error Correction, and Scalability.....	79
<i>Wai Yie Leong, Yuan Zhi Leong, Wai San Leong</i>	
Mini-LED Backlight with Novel Structural Film for VR Liquid Crystal Displays.....	81
<i>Bo-Han Cheng, Chung-Wei Huang, Wen-Chun Wang, Chih-Jen Tsang, Chung-Yang Fang, Tzu-Hung Lin, Chung-Jen Ou</i>	
How 5G Applications Are Reshaping the Commercial District: The Relevance of Technologies to Consumer Experiences	83
<i>Chia-Yi Liao, Tien-Yin Chou, Chih-Chung Kao</i>	
An Interactive Somatosensory Detection Application in Revolutionizing Boxing Training	85
<i>Wei-Shen Tai, Kuan-Hsien Liu</i>	
A Novel Nighttime Close-Up and Far-Away Reflection Dataset with Absorption Effects.....	87
<i>U-In Chan, Tsung-Jung Liu, Kuan-Hsien Liu, Chun-An Lin</i>	
Consistent Learning of Multiple Paths Using Frequency-Aware Clues for Face Forgery Detection	89
<i>Oscal Tzyh-Chiang Chen, Wei-Jei Lin, Cheng-Tai Tsai</i>	
Multiple Attention to Weight Fusion Based Network for in-The-Wild Facial Expression Recognition	91
<i>Kuan-Hsien Liu, Wen-Ren Liu, Tsung-Jung Liu, Wei-Shen Tai</i>	
Facial Age Synthesis by StyleGAN2 with Attention	93
<i>Tung-Ke Hsieh, Tsung-Jung Liu, Kuan-Hsien Liu</i>	
Micro-Expression Recognition by 3D-CNN in Combination with GRU	95
<i>Chun-Ting Fang, Tsung-Jung Liu, Kuan-Hsien Liu</i>	
Infrared Image Super-Resolution with Multi-Domain Attention and Spatial-Frequency Processing.....	97
<i>Chun-An Lin, Yu-Chia Chang, Tsung-Jung Liu</i>	

Fusion U and V: Efficient MRI Sampling Via the Fusion of U-Net and Conditional Variational Autoencoder	99
<i>Khristina Pershina, Ching Chun Huang</i>	
Hybrid Suppression and Attention with Online Augmentation for Weakly Supervised Semantic Segmentation	101
<i>Li-An Tseng, Jing-Ming Guo, Zi-Han Lin</i>	
Leveraging the NOMAD and Intelligibility Loss to Improve MP-SENet for Speech Enhancement	103
<i>Yi-Zhen Li, Chung-Wei Chang, Mu-Chin Li, Eric S. Li, Jeh-Weih Hung</i>	
Light-Weight Monocular Depth Estimation by Non-Local Decoder-Squeeze-And-Excitation Network	105
<i>Yz-Heng Lin, Wei-Chung Wan, Hsiu-Wei Su, Tsung-Han Tsai</i>	
Saturation-Enhanced Dynamic Range Network for HDR-Like Image Enhancement	107
<i>Po-Sheng-Huang, Pei-Jun Lee, Trong-An Bui</i>	
Design of Deep Video Compression Model Enabling Variable Bit Rate Coding	109
<i>Hsuan-Hung Liu, He Sun, Huai-Chun Yu, Jiann-Jone Chen</i>	
Cloud-Native Telco Network Functions Based on Kubernetes Cloud	111
<i>Wu-Chun Chung, Yun-Hung Tseng, Guan-Jie Chen, Cheng-Sung Tsai</i>	
Ring-Based Decentralized Federated Learning with Cosine Similarity Grouping	113
<i>Wu-Chun Chung, Yan-Hui Lin, Jau-Ai Luo</i>	
Practical Self-Supervised Model for Continual Learning	115
<i>Wen-Hwa Liao, Chang-Tzu Lin, Ssu-Chi Kuai</i>	
The Application of IoT Cross-Media Q&A System in an Astronomy and Art Festival	117
<i>Shih-Ta Liu, Su-Chu Hsu</i>	
Few Shot Ultra Fine-Grained Visual Classification for Defect Detection	119
<i>Zheng-Wei Chen, Chia-Yu Lin</i>	
Supervised Intrusion Detection with Out-Of-Distribution Detection for Microservices	121
<i>Yong-Syuan Chen, Hsiang-Yin Lien, Jo-Yu Li, Chia-Yu Lin</i>	
Dynamic and Static Features Extraction for Deepfake Detection	123
<i>Hao Teng, Chia-Yu Lin</i>	
Constructing a Parent-Child Friendly Micro-Mobility Environment: A Case Study on Pedelec	125
<i>Guo Yi-Ting, Chen Chun-Ching</i>	
Electric Field Multiplexing Communication Using Software Defined Radio for Car Area Network	127
<i>Hibiki Suda, Hiroto Endo, Mitsuru Shinagawa</i>	
EM Simulation in Shielding Effectiveness of PET and Magnetic Thin Film Multilayer	129
<i>Yuto Yamazaki, Hiroki Onuki, Mitsuru Shinagawa</i>	
Discussions on Performance Improvement of Reinforcement Learning Via Karting Microgame	131
<i>Che-Cheng Chang, Po-Ting Wu, Yee-Ming Ooi</i>	
Lightweight Super-Resolution: Combining FSRCNN and Inception for Efficient Improvement	133
<i>Yee-Ming Ooi, Chiao-Ming Chang, Che-Cheng Chang</i>	

UAV Inspection in Heavy Industry: Preliminary Trial and Challenge	135
<i>Tzu-Chieh Hung, Yang-Rui Li, Chao-Chung Peng</i>	
Enhancing Automotive Safety: Weather-Adaptive Intelligent Headlights with Adjustable Color Temperature.....	137
<i>Yu-Hsin Chen, Bing-You Wu, Li Cho</i>	
Evaluation of a Vision Based UAV Indoor Inspection for a Well-Structured Heavy Industry Environment.....	139
<i>Tzu-Chieh Hung, Rong He, Chao-Chung Peng</i>	
Electric Field Communication Between Transceivers Inside and Outside Vehicle	141
<i>Mako Osawa, Ken Ogasawara, Mitsuru Shinagawa</i>	
An Internal Resistance Measurement Technique for Vehicle Cascade Lead-Acid Battery Packs	143
<i>Che-Yu Lu, Tzu-Ping Cheng</i>	
Dual Transmitter Coils Wireless Power Transfer System with Improved Energy Saving Technique	145
<i>Che-Yu Lu, Kai-Ying Qiu, Tzu-Ping Cheng</i>	
Cloud Sudoku: A Sudoku Application to Collect Game Records by Human Players.....	147
<i>Yu-Chen Lin, Wen-Yan Kuo, Sheng-Wei Wang</i>	
Improving Smartphone Accessibility for the Visually Impaired with a Tactile Assistive Device	149
<i>Asuka Kuwae, Toshiya Takami, Toshiyuki Haramaki</i>	
Tactile Vest: Virtual Reality Interactive Shooting Game Accessory Using Microcontroller and Vibration Motor	151
<i>Chi-Huang Hung, Kuan-Ming Wang, Sheng-En Hsiao</i>	
Designer-GenAI Co-Creation: Exploring the Potential Impact of Micro-Mobility Tool Design Recommendations on Elderly Mobility and Welfare.....	153
<i>Jia-Xian Lin, Chun-Ching Chen</i>	
Interactive Design of Preschool Children’s Picture Book Based on Embodied Cognition	155
<i>Bo Liu, Xiaofang Li, Chih-Ying Chen, Xiangyi Wu</i>	
Maximizing QAOA Potential: Efficient Max-Cut Solutions Through Classical Parallel Searching for Time-Sensitive Applications	157
<i>Chi Chuang, Po-Hsuan Huang, Chia-Heng Tu, Shih-Hao Hung</i>	
QRCI Based Quantum Color Image Encryption	159
<i>Chia-Ho Lin, Chen-Chi Cheng, Chih-Wei Tang</i>	
Key Expansion Based on Elliptic Curve Cryptography for Anonymous Voting	161
<i>Abel C. H. Chen, Chia-Yu Lin</i>	
Is a Blockchain-Based Ticket Without NFTs Useful?	163
<i>Kazumasa Omote</i>	
An Implementation of Blockchain-Based Federated Learning Framework	165
<i>Po-Hsuan Hung, Bing-Siang Wang, Yu-Wei Chang, Ted T. Kuo, Li-Jen Wang, Chia-Yu Lin</i>	
A Data Encryption System Utilizing Physical Unclonable Functions, Pseudorandom Functions, and Ascon.....	167
<i>Yian Chen, Yichiao Chen, Hongzhe Chen, Yeong-Kang Lai</i>	

Enhancement of User Authentication Using Biometrics in Mobile Networks	169
<i>Hyunseok Kim</i>	
RefBot: A Chatbot System for Basketball Referees	171
<i>Wen-Yan Kuo, Yu-Chen Lin, Sheng-Wei Wang, Wen-Wei Hsieh, Ying-Cheng Chen</i>	
Study on the Safety and Health of Faculty at Universities	173
<i>Iyori Homma, Taiki Shiraishi, Ryoza Kiyohara</i>	
LiteMirroring: BT Based Screen Mirroring Solution	175
<i>Sang-Hun Lee, Young-Lok Lee, Bong-Kyu Kim</i>	
IoT2ChatGPT: An Adaptive Communication Mechanism Between IoT Devices and ChatGPT	177
<i>Wei Ren, Huisheng Niu, Kai Zeng</i>	
A Method for Predicting Peak Ground Acceleration Using Graph Neural Networks	179
<i>Zhou Datian, Ma Qianwen, Yang Lin, Gu Kun</i>	
EEG-Based Seizure Prediction Using Squeeze-And-Excitation Feature Fusion Network	181
<i>Yulan Ding, Wenshan Zhao</i>	
A Subject-Specific Time Window Selection Method for Motor Imagery BCI	183
<i>Yibing Zhang, Wenshan Zhao</i>	
Image Line Features Based Motion Blur Optimization in Map Construction for Railway Scene	185
<i>Zejing Xu, Zhihong Huang, Yiqing Liu, Peng Qi</i>	
A Universal Positioning System Based on Multi-Sensor Fusion for Small Mobile Robots	187
<i>Mengran Li, Yangwen Xu, Qinghan Wu, Rui Wang, Dan Tao</i>	
A User-Oriented Quality Assessment Strategy for IoT Cloud Services	189
<i>Peng Qi, Da-Tian Zhou</i>	
Taiwanese Hokkien in AI: Challenges, Approaches, and Language Modeling	195
<i>Jeng-Shin Sheu, Aftab Ahmad, Shun-Yi Xu</i>	
Decoding AI Complexity: SHAP Textual Explanations Via LLM for Improved Model Transparency	197
<i>Chung-Chian Hsu, I-Zhen Wu, Shih-Mao Liu</i>	
Stray Dogs Tracking Based on Drone and AI	205
<i>Hsien-Huang Wu, Hao-Nien Wei, Hsing-Chieh Wang</i>	
End-To-End Automation of ML Model Lifecycle Management Using Machine Learning Operations Platforms	209
<i>Chung-Chian Hsu, Pin-Han Chen, I-Zhen Wu</i>	
Bilingual Speech Recognition for Taiwanese Hokkien and Mandarin: Computational Intelligence in Complex Acoustic Environments	215
<i>Jeng-Shin Sheu, Aftab Ahmad, Jian-Min Li</i>	
Identifying Key Features for Quality Prediction from Production Data	217
<i>Chung-Chian Hsu, Yi-Ling Xiao, Guan-Lin Chen, Arthur Chang, An-Yi Hsu</i>	
AI Fusion with Adaptive Filter for Non-Stationary Data in Parameter Prediction	219
<i>Chun-Hung Sun, Yuan-Jun Su</i>	

Speeding Up the Throughput of an NLMS Adaptive Filter.....	221
<i>Yu-Zhe Huang, Chia-Yu Yao, Ping-Yi Lee</i>	
Automated Quantization Strategy on CIM.....	223
<i>Yu-Shan Huang, Wei-Kai Cheng</i>	
Intelligent Water-Efficient Street Cleaning Vehicle for Road Pollution Identification Applications.....	227
<i>Szu-Hong Wang, Yan-Xin Liao, Liang-Xu Zhang</i>	
Computer Vision for Automated Prawn Cultivation: Density and Growth Estimation	237
<i>Wai Khuen Cheng, Boon Yaik Ooi, Teik Boon Tan, Xiao Wei Chong, Tze Jun John Ling, Chaiw Yee Teoh, Ai Lin Ooi, Yen-Lin Chen</i>	
A Users' Behavior-Aware Data Reduction Framework for Internet of Things (IoT)	239
<i>Wan-Qing Ng, Boon-Yaik Ooi, Soung-Yue Liew, Cheng Wai Khuen, Tan Teik Boon, Jim-Min Lin, Zeng-Wei Hong</i>	
Internet of Things: Perspective Path Based Tests in the Heterogeneity Environment	241
<i>Teik-Boon Tan, Yiqi Tew, Tong-Ming Lim, Wai-Khuen Cheng, Yen-Lin Chen</i>	
An Elementary of Intelligent Farming with Internet of Things Application.....	243
<i>Yiqi Tew, Wai Zhong Wong, Yung Her Chan, Teik-Boon Tan, Wai-Khuen Cheng, Yen-Lin Chen</i>	
Design of Outpatient Visit Assist System Based on Visible Light Communication Techniques	245
<i>Chang-Yi Li, Cheng-Yuan Chang</i>	
Deployment of Threat Detection and Deception System Based on SDN	247
<i>Wun-Yuan Huang, Min-Zhe Zhong, I-Hsuan Kuo, Hsin-Tien Cheng, Lien-I Huang, Bo-Yi Lee</i>	
Toward Resilient LoRa Communication Under Wi-Fi Interference	249
<i>Chenglong Shao, Kazuya Tsukamoto, Yi-Wei Ma</i>	
Development of Multiple-Input Multiple-Output Antenna Systems for Enhanced Capacity and Coverage in Public Wireless Local Area Networks.....	251
<i>Chang-Lun Liao</i>	
Improved Worst-Case Modeling for Energy Balancing Considering Periodic Behavioral Patterns.....	253
<i>Saher Javaid, Mineo Kaneko, Yasuo Tan</i>	
Applying an Agent-Based Distributed AI Framework to Forecast Power for the Mini-Grid Stability.....	255
<i>Iacovos I. Ioannou, Saher Javaid, Vasos Vassiliou, Andreas Pitsillides, Yasuo Tan</i>	
Catalyzing Energy Balance: A Comparative Analysis of Optimization Algorithms in the DAI Framework.....	257
<i>Saher Javaid, Iacovos I. Ioannou, Vasos Vassiliou, Andreas Pitsillides, Yasuo Tan</i>	
Three-Level Energy Sharing Management in Residential Prosumer Multi-Communities	259
<i>Ruengwit Khwanrit, Saher Javaid, Yuto Lim, Chalie Charoenlarnnoppa, Yasuo Tan</i>	
Development of Li-Ion Battery Emulator Focusing on Transient Responses Using Bipolar Amplifier	261
<i>Kota Kojima, Naoto Nagaoka, Minella Bezha</i>	

A Designing Databases Framework for AI Training in Industrial Predictive Maintenance.....	263
<i>Gustavo M. Torres, Andrey R. R. Bessa, José E. B. S. Linhares, Mateus O. Silva, Adriel V. Santos, Myke D. M. Valadão, Vinicius S. Menezes, Edma V. C. U. Mattos, Antônio M. C. Pereira, Agemilson P. Silva, Allan C. Brito, Ruan J. S. Belem, Romulo S. F., Waldir S. S., Celso B. Carvalho</i>	
Implementing Machine Learning Microservices for Predictive Maintenance of Industrial Assets	265
<i>Antônio M. C. Pereira, Mateus O. Silva, Andrey R. R. Bessa, José E. B. S. Linhares, Diego A. Amoedo, Edma V. C. U. Mattos, Agemilson P. Silva, Allan C. Brito, Ruan J. S. Belem, Rômulo S. F., Jean A. O. Nunes, Madson R. Lemos, Maura R. A. Costa, Waldir S. S., Celso B. Carvalho</i>	
Data Enhancement Based on Adding Noise to Improve the Detection of Rail Surface Defects and Sleeper Fractures	267
<i>Ming-An Chung, Jia-Wei Lin</i>	
Asset Administration Shell in Manufacturing: Case Study in Manaus Industrial Complex	269
<i>José E. B. S. Linhares, Gustavo M. Torres, Matheus S. Uchôa, Adriel V. Santos, Myke D. M. Valadão, Diego A. Amoedo, Maria Regina Araújo Souza, Edma V. C. U. Mattos, Antônio M. C. Pereira, Agemilson P. Silva, Allan C. Brito, Allan R. A. Silva, Rômulo S. F., Jean A. O. Nunes, Madson R. Lemos, Maura R. A. Costa, Waldir S. S. Júnior, Celso B. Carvalho</i>	
XGBoost-Based Music Emotion Recognition with Emobase Emotional Features	271
<i>Pyi Bhone Kyaw, Li Cho</i>	
JENet: A JPEG Compliant Image Steganographic Scheme.....	273
<i>Yi-Han C Eng, Po-Chyi Su</i>	
StockQM: A Cross-Frequency Dataset for Stock Prediction and a New Stock Prediction Model	275
<i>Kuan-Hsien Liu, Yu-Shiang Lin, Tsung-Jung Liu, Wei-Shen Tai</i>	
Face-To-Music: Music Generation Based on Facial Emotions	277
<i>Sieun Hyeon, Hyeong-Gi Seong, Nam-Joon Kim, Hyuk-Jae Lee</i>	
Chunking Strategy for Retrieval Augmented Generation in Regulation Documents	279
<i>Amar Fadillah, Nuke Athahirah, Kuan Ting Lai</i>	
Automatic Tool for Translating Sum-Of-Product Expressions into Behavior-Level CIM Circuits.....	281
<i>Ting-Hao Chen, Shih-Hsu Huang, Chuan-Han Cheng, Li-Der Jeng</i>	
Impact of ADC Bits on CNNs in CIM Architecture.....	283
<i>Chia-Hsuan Chang, Wei-Kai Cheng</i>	
Securing Finite State Machines Through Obfuscation Modes and Diverse Flip-Flop Configurations	287
<i>Ya-Cheng Yu, Shih-Hsu Huang</i>	
Genetic Algorithm Based Method for Escaping Routing Congestion in VLSI Circuits.....	289
<i>Junhao Zhou, Dun-Wei Cheng</i>	
On Development of Immune Function for Botnet Defense System	291
<i>Masato Okawa, Shingo Yamaguchi</i>	
Unveiling the Black Box: An XAI-Based Anti-Money Laundering Model	293
<i>Pei-Yi Li, Ting-Ting Chang, Yu-Chiao Kuo, Chia-Yu Lin, Heng-Yu Chang</i>	
A Genetic Algorithm Based Data Dissemination Protocol for Wireless Sensor Networks.....	295
<i>Neng-Chung Wang, Hsu-Yao Chuang, Huang-Ren Chen</i>	

Visualizing Machine Intelligence as Art Installations for Popular Science by Crafting Convolutional Neural Networks.....	297
<i>Chen-Hua Lu, Su-Chu Hsu, Che-Rung Lee</i>	
Comparing the Effectiveness of ChatGPT and Google Search in Assisting Learners to Solve Problems.....	299
<i>Chih-Chien Hu, Imam Yuadi, Ming-Hsien Chen, Hsieh-Chang Huang</i>	
FitBot: A ChatGPT Mobile Application-Based Fitness Tracker for Elderly Users.....	301
<i>Yann Mey Yee, Tzu-Ning Li, Yi-Hsiang Fu, Hans Louis Olinger, Wen-Sheng Chiu</i>	
Integrating Stable Diffusion for Improved Alzheimer's Disease Classification: Insights from MRI Images and YOLOv8.....	303
<i>Junaidul Islam, Elvin Nur Furqon, Isack Farady, John Sahaya Rani Alex, Chia-Chen Kuo, Chih-Yang Lin</i>	
Influence of Negative Pressure and Duration on Skin Thickness in Scar Healing.....	305
<i>Rifki Ramadan, Gilang Titah Ramadhan, Wei-Cheng Shen, Wen-Thong Chang, Hsu-Tang Cheng, Ben-Yi Liao, Yih-Kuen Jan, Ardha Ardea Prisilla, Chi-Wen Lung</i>	
Segmenting Alzheimer's Disease MRI Slices for Hippocampal Volume Calculation.....	307
<i>Hsiao-Chuan Tan, Gilang Titah Ramadhan, Wei-Cheng Shen, Wen-Thong Chang, Chih-Yang Lin, Ben-Yi Liao, Yih-Kuen Jan, Yori Pusparani, Chi-Wen Lung</i>	
Applying Small Object Detection for Bombing UAV in Battle Field Environment.....	309
<i>Dong-Yan Wu, Sheng-Fan Lo, Yu-Wei Liu, Wei-Min Liu</i>	
Utilizing Brain Region Volume Estimations to Enhance Interpretability of Decision Trees for Alzheimer's Disease Classification.....	311
<i>Le Sang, Isack Farady, Chia-Chen Kuo, Po-Chiang Lin, Chih-Yang Lin</i>	
Image Inpainting with GAN Via Visual Knowledge Distillation from Large Text-Image Models.....	313
<i>Zheng-An Zhu, Liang-Yu Chen, Chen-Kuo Chiang</i>	
A Hybrid Approach for Counting Emergency Drugs.....	315
<i>Nian-Yin Wu, Che-Chia Liu, Chia-Hui Liu, Wen-Yin Kuo, Wei-Yang Lin</i>	
ERCNet: Enhancing ReActNet with a Compact ECA Branch.....	319
<i>Yen-Ting Chen, Ching Han Chen</i>	
Deep-Learning Based Classification of Clinical Significance for Prostate Cancer.....	321
<i>Jia-Hao Chen, Shih-Chieh Hsu, Chih-Yu Shen, Gia-Shing Shieh, Chun-Hung Yang, Yung-Ming Kuo</i>	
A Praying Gesture Recognition System Based on TinyML.....	323
<i>Chun-Hung Yang, Hui-Yen Lin, Ting-Kuei Chang, Ping-Chen Tsai, Lih-Yang Wang, Yung-Ming Kuo</i>	
Modification of Deeplab V3+ for Detecting Cracks on Steel Rail Surfaces.....	325
<i>Ming-An Chung, Yi-Xuan Ma</i>	
ReActXGB: A Hybrid Binary Convolutional Neural Network Architecture for Improved Performance and Computational Efficiency.....	327
<i>Po-Hsun Chu, Ching-Han Chen</i>	
Dog Training Assistance System.....	329
<i>Ting-Yu Lai, Hsin-Yu Huang, Min-Jie Chen, Xin-Hua Huang, Hui-Kai Su, Chi-Chia Sun</i>	

Adaptive Cruise Control System Combined with AIoT	331
<i>Jhih-Sian Lin, Yu-Chieh Wang, Ching-Ling Lin, Li-Shan Ma</i>	
Generic Hardware Integrating Multiple Activation Functions for Deep Learning Applications	333
<i>Chu Yu, Yi-Ching Hung</i>	
Constructing a Wi-SUN FAN Based Smart City - A Real Time AI Traffic Event Positioning and Representing System	337
<i>Chi-Yuan Yeh, Yun-Yao Zheng, Yun-Ze Zheng, Jiun-Yu Tu, Chih-Lin Hu</i>	
Forecast of Anomalies in Vacuum Pump Based on HEX@ Sensor Using TSMixer Model.....	339
<i>Myke D. M. Valadão, Mateus O. Silva, Gustavo M. Torres, Matheus S. Uchôa, Andrey R. R. Bessa, Diego A. Amoedo, Vinicius S. Menezes, Edma V. C. U. Mattos, Antônio M. C. Pereira, Agemilson P. Silva, Allan C. Brito, Ruan J. S. Belem, Romulo S. F., Waldir S. S. Junior, Celso B. Carvalho</i>	
A Data Aggregation Scheme with Unequal Clustering for Wireless Sensor Networks	341
<i>Neng-Chung Wang, Ping Wang, Jhen-Cong Luo</i>	
Déjà Vu: Leveraging Environmental Cues for Enhanced Chinese Language Acquisition Through a Situated Learning Mobile App	343
<i>Cheng-Yi Hsieh, Nan-Ching Tai</i>	
Exploring the Influence of Website Knowledge Carriers on College Students' Learning Effectiveness in IoTs Education	345
<i>Yu-Han Kao, Kai-Yi Chin, Huai-Ling Chang</i>	
Automated Checkout System Using Deep Learning to Detect Product Image Classification.....	347
<i>Ming-Hsiang Su, Chun-Yu Lin</i>	
Optimized YOLOv5 and Spatial Pyramid Pooling to Enhance Industrial Defect Detection.....	349
<i>Su Ming-Hsiang, Jian Zhi-Juan</i>	
Privacy-Preserving Diploma Management System Based on Blockchain	351
<i>Wei-Tsung Su, Yan-Lun Chen, Po-Wei Tseng, Yi-Xue Zhuang</i>	
A Serious Game for the Livestock Industry Utilizing a Gesture Interaction Device.....	353
<i>Hsin-Cheng Wu, Sheng-Ming Huang, Tzu-Chuen Lu</i>	
Partial Data, Potential Exposure: Evaluating Privacy Leakage Via GNNExplainer on Social Networks	355
<i>Liang-Jen Huang, Cheng-Te Li</i>	
Artificial Intelligence for EEG Extraction.....	357
<i>Wai Yie Leong, Yuan Zhi Leong, Wai San Leong</i>	
RGB-PD SLAM: Scale Consistent Monocular SLAM Using Predicted Depth	359
<i>Mehbas Nawal, Gayan Brahmanage, Henry Leung</i>	
High Performance 2-Dimensional Systolic Array Design for Edge AI Accelerator.....	361
<i>Wai-Chi Fang, Ching-Jung Lin, Yi-Kai Chen, Jing-Ping Cheng</i>	
Discriminator-Enhanced Music Generation Based on Multitrack Music Transformer	363
<i>Jinlong Zhu, Keigo Sakurai, Ren Togo, Takahiro Ogawa, Miki Haseyama</i>	
Non-Contact Floating Buttons in Post-Pandemic World	365
<i>Shu-Cheng Hsu, Chih-Hao Chuang, Hong-Yi Chien, Ching-Chen Hsu</i>	

A 1.8V Biomedical Signal Receiving with a Common Mode Bulk-Feedback Technique	367
<i>Meng-Ju Tsai, Kuo-Tsun Hung, Chia-Hung Chang, Hsuan-Fu Wang</i>	
Design of a Low Dropout Voltage Regulator Using Nested-Current-Mirror Rail-To-Rail-Output Single-Stage Amplifier	369
<i>Lung-Sheng Tang, Ming-Hong Huang, Po-Yu Kuo, Po-Hui Yang</i>	
Baseball Batting Movement Analysis System	373
<i>Hsiang-Lung Huang, Ming-Da Ke, Pin-Hsuan Kao, Ming-Te Yen, Hsiao-Yun Chang, Ya-Hsin Hsueh</i>	
OTFT-MiniLED with Novel Retardation Film.....	375
<i>Chung-Jen Ou, Chia-Hung Tsai, Bo-Han Cheng, Jing-Yu Wu, Dan Sharkey, Simon Ogier, Wen-Chun Wang, Ching-Nan Chuang</i>	
Tiny Environmental Sensors.....	377
<i>Hsuan-Fu Wang, Rueihung Kao, Ching-Hsiang Chuang, Jia-Ming Xu, Ding-Wei Chung</i>	
The Application of Sports Imaging Technology in the Study of Basketball Free Throw Technique.....	379
<i>Su Ming-Hsiang, Hsu Jui-Che</i>	
Improving Graph-Convolution-Network-Based Action Recognition Through Enhanced Skeletal Joint Features.....	381
<i>Wen-Nung Lie, Oskar Ika Adi Nugroho</i>	
Analyzing the Applicability of Cutting-Edge Point Cloud Registration Techniques Across Diverse Application Domains.....	383
<i>Jia-Sheng Lin, Pei-Hsuan Tsai</i>	
Research on Track Fasteners and Rails Surface Detection Using Image Recognition and Data Management System Technology	385
<i>Ming-An Chung, Chun-Chia Lin</i>	
A Comparative Study of Algorithms for Dynamic Frame Rate Adjustment	387
<i>Pei-Jung Lin, Tsai Meng-Shuan, Chen Yu-Ting, Yang Ting-Hao, Cheng-Yao Ho, Hsiang-Sheng Wang</i>	
Issuer-Hiding Attribute-Based Credentials with Verification of Issuer's Attributes	389
<i>Yuta Hamada, Toru Nakanishi, Teruaki Kitasuka</i>	
An In-Depth Analysis of Kerberos and Blockchain Integration on VANETs' Security and Performance.....	391
<i>Maya Rahayu, Md. Biplob Hossain, Samsul Huda, Md. Arshad Ali, Yuta Kodera, Yasuyuki Nogami</i>	
A Study on a New Pseudorandom Number Generator with Deterministic Maze Construction	393
<i>Takeru Miyazaki, Shunsuke Araki, Satoshi Uehara</i>	
Optimizing CRYSTALS-Dilithium in Rust: Radix-4 NTT and Assembly-Level Comparison with Official C Implementation.....	395
<i>Shunri Kudo, Yasuyuki Nogami, Samsul Huda, Yuta Kodera</i>	
A Study to Improve Calculation Efficiency of CKKS Encoding with Parallelization.....	397
<i>Taichi Saito, He Yixuan, Samsul Huda, Junting Xiao, Yuta Kodera, Yasuyuki Nogami</i>	

Securing Data Transmission in Noisy Channels: A Synergistic Approach Using Kyber and BCH Codes.....	399
<i>Linh Nguyen, Andri Santoso, Samsul Huda, Yasuyuki Nogami, Tuy Tan Nguyen</i>	
Relation Between Recognition Accuracy and Object's Occupancy in CAPTCHA Image Using Weave Filters.....	401
<i>Natsuo Hayashi, Takeru Miyazaki, Shunsuke Araki, Satoshi Uehara</i>	
The FOAM Robot: Finding Objects with Autonomous Movement.....	403
<i>Chi-Feng Chen, Pei-Hsuan Tsai</i>	
A Six-Wheeled Rescue Robot Dog Based on YOLOv7.....	405
<i>Ming-An Chung, Zhi-Xuan Zhang, Jun-Hao Zhang, Chia-Wei Lin, Chia-Chun Hsu, Ming-Chun Hsieh, Shang-Jui Huang, Kai-Xiang Chen, Sung-Yun Chai</i>	
Wireless IoT System of Identification of Erratic Movement in Tambaqui Through Behavioral Image Monitoring.....	407
<i>Rodrigo G. Printes, Giselle L. Marinho, Elias A. S. De Almeida, Andrey R. R. Bessa, Diego A. Amoedo, Edma V. C. U. Mattos, Waldir S. S. Júnior, Celso B. Carvalho</i>	
Fire Scene Multi-Sensing Dynamic Escape Route Planning System Combined with WDTW Algorithm.....	409
<i>Ming-An Chung, Jun-Hao Zhang, Zhi-Xuan Zhang, Chia-Wei Lin, Chia-Chun Hsu, Ming-Chun Hsieh, Shang-Jui Huang, Kai-Xiang Chen, Sung-Yun Chai</i>	
5G FR2-Band PA Performance Degradation in 40-Nm GaN HEMTs with Potential Design Solutions.....	411
<i>Clint Sweeney, Donald Y. C. Lie, Jill Mayeda, Jerry Lopez</i>	
Towards Universal Multimodal Actuator Sensor Chips - UMASCs.....	413
<i>Moustafa Nawito</i>	
Digital Twins for Energy Efficiency Management in Industry 4.0.....	415
<i>Rômulo Fabrício, Raji Sundararajan, Allan Amorim, Orlewilson B. Maia, Eddie B. De Lima Filho</i>	
Automatic Pneumothorax Segmentation in Chest Radiographs Preprocessed by IEDSR Bone Suppression.....	419
<i>Chih-Wen Lin, Chia-Hsiang Ho, Chian C. Ho, Zhi-Wei Wang</i>	
Old Video Quality Enhancement Technology Based on Generative Adversarial Networks.....	425
<i>Shao-Rui Su, Shih-Chang Hsia, Shi-Kai Yang</i>	
Proposal for Hair Cuticle Anomaly Detection Using Metallographic Microscope and Deep Learning.....	427
<i>Hiroyuki Asano, Aika Kuramoto, Kensuke Yotsumoto, Hiroko Kawanobe, Megumi Nakashima, Makoto Hasegawa</i>	
Optimal Positioning of Sensors in a Bed Monitoring System Using RFID.....	429
<i>Ryota Adachi, Yu Yamauchi, Nobuhiro Shimoi, Kazuhisa Nakasho</i>	
Enhancing Medication Adherence for Schizophrenia Patients in Taiwan Through ICT Interventions.....	433
<i>Shu Hui Hung</i>	
Posture Monitoring and Real-Time Feedback System Based on Multiple Pressure Sensors.....	435
<i>Kuang-Hao Lin, Chia-Hsiang Huang</i>	

Prototype of Transcutaneous Electrical Nerve Stimulator Based on Microcontroller	437
<i>Hung-Huan Liu, Po-Han Fang</i>	
Study on the Impact of Subject Variability in a Bed Monitoring System Using RFID	439
<i>Keisuke Soma, Yu Yamauchi, Nobuhiro Shimoi, Kazuhisa Nakasho</i>	
Out-Of-Distribution Awareness Via Domain Generalization for Industrial Production Surveillance Employment	441
<i>Jirayu Petchhan, Muhammad Firdaus Alhakim, Shun-Feng Su</i>	
Enhanced Intrusion Detection in Backbone Networks Using Graph Neural Networks	443
<i>Chung-Wei Lee, Jiunn-Jye Chen, Ming-Chang Liang</i>	
Investigating Relationship Between Data Augmentation Intensity and Model Performance in Natural Language Processing	445
<i>Shouki Wada, Naoyuki Morimoto</i>	
Estimating the Training Performance of Generative Adversarial Networks by Image Quality	447
<i>Kuei-Chung Chang, Ming-Ching Lo</i>	
Design of Retail Product Recognition by Transfer Learning and Fine-Tuning Techniques	449
<i>Kuei-Chung Chang, Wei-Kai Huang</i>	
Advancing Image-To-Image Translation Model Assessment with Clustering Technique	451
<i>Rung-Ching Chen, Chayanon Sub-R-Pa</i>	
Automatic Test Cases Generation Method by Structuring Requirement Specification Using LSTM	453
<i>Yuki Shimizu, Kiyoshi Ueda</i>	
A Cost-Effective Training Scheme for Person Re-Identification in Soccer Matches	455
<i>Yu-Yung Kao, Po-Yung Chou, Cheng-Hung Lin</i>	
Introducing Class Replacement Technique in Class Incremental Learning in Generative Models	457
<i>Taro Togo, Ren Togo, Keisuke Maeda, Takahiro Ogawa, Miki Haseyama</i>	
Colorectal Polyp Detection and Classification Using Deep Learning Techniques	459
<i>Yao-Tien Chen, Nisar Ahmad, Chi-Che Hong, M. David Honesty</i>	
Customized Expertise: Compact Language Models with Enhanced QA for Enterprises	461
<i>Yun-Jui Chang, Yi-Jia Huang, Han-Si Tao, Chih-Yung Chang</i>	
Deer Species and Gender Detection System Based on YOLO V9	463
<i>Jun-Jie Yen, Yu-Hao Pan, Chi-Hung Wang</i>	
Visualization-Oriented Natural Language Interfaces for Grafana Dashboard	465
<i>Bo-Yao Tong, Ted T. Kuo, Chia-Yu Lin</i>	
Improved YOLOv7 Method for Real-Time Obstacle Avoidance in Large Autonomous Vehicles	467
<i>Ming-An Chung, Sung-Yun Chai, Ming-Chun Hsieh, Chia-Wei Lin, Chia-Chun Hsu, Shang-Jui Huang, Kai-Xiang Chen, Zhi-Xuan Zhang, Jun-Hao Zhang</i>	
A Study on Anomalous Sound Detection in Factories for Early Failure Detection Using Wavelet Transform	469
<i>Masaya Ueda, Daisuke Tanaka, Mikiko Sode Tanaka</i>	
Multi-Object Checking Using Double-Recognition Mechanism.....	471
<i>Yi-Chong Zeng</i>	

Perspective-Aware Synthetic Dataset Generation for Unmanned Retail Stores	473
<i>Viduranga Munasinghe, Tae-Ho Lee, Jin-Sung Kim, Hyuk-Jae Lee</i>	
Knowledge Distilled Mask-Rcnn for Image Shadow Detection and Segmentation	475
<i>Swapnil Karbhari Ahire, Duan-Yu Chen</i>	
Using Deep Neural Networks Analyzing Wound Images for Forensic Tool Mark Identification	479
<i>Chun-Ta Wei, Jeff Cheng-Lung Lee, Yu-Guang Chen, Wei-Hung Lin, Hui-Tzu Ting, Chi-Tse Pai</i>	
Implementing an AI-Driven System and a LINE Bot to Enhance EFL University Students' Oral Skills.....	481
<i>Yu-Ting Yang, Chih-Yung Chang</i>	
Navigating Philippine Streets: Implementing YOLOv8 with Ghost Convolutions for Traffic Sign Detection	483
<i>Alec Angelo A. Aquino, Patricia Angela Abu, Raphael Alampay</i>	
3D-PECUT: 3D Point Cloud hiErarchical Fusion-Based Convolutional Transformers for Wire Bonding Inspection.....	485
<i>Shang Li Yuen, Phooi Yee Lau, Chin Wee Wong, Muhammad Hafiz Samsuri, Nur Afiqah Kamarudin, Muhammad Syukri Mohd Talib, Hock Woon Hon</i>	
Electro-Optic Sensor with Current Compensating Circuit for Measuring Low Frequency Noise	487
<i>Takahiro Uchida, Mitsuru Shinagawa, Jun Katsuyama, Yoshinori Matsumoto, Shinichiro Tezuka</i>	
MW Plasma Optical Contactless Monitor Development.....	489
<i>Feng-Tsung Cheng, Peng Yang, Wen-Long Lu, Jen-Kuang Fang, Bao-Ta Jian</i>	
Exposure Correction in Driving Scenes Using the Atmospheric Scattering Model	493
<i>Shyang-En Weng, Shaou-Gang Miaou, Ricky Christanto, Chang-Pin Hsu</i>	
Lightweight Single-Image Depth Estimation Model.....	495
<i>Man-Chen Hsueh, Xiu-Zhi Chen, Yen-Lin Chen</i>	
Development an Web-Based Application for Predict Broiler Chicken Growth with LSTM Model.....	497
<i>Pui Fang Sin, Yu-Chen Yang, Yen-Lin Chen</i>	
An Obstacles Closest Path Planning Algorithm for Automatic Local Routing of Vehicles.....	499
<i>Mao-Yin Wang, Sun-Yen Tan, Yu-Ting Tu, Lih-Jen Kau</i>	
Researching the Rural Revitalization Information Service Platform Base on Aging Population - Guangdong's Rural Areas as an Example	501
<i>Chiu-Chin Chen, Chia-Chun Liao, Zhi-Ling Zhang, Si-Yi Chen, Qin-Ling Liao, Yong-Ran Yang</i>	
Augmented Reality Technology Drives Guizhou Xijiang Qianhu Miao Village Tourism Development	503
<i>Chia-Chun Liao, Chiu-Chin Chen, Wan-Xin Xiao, Zhi-Han Chen, Huan-Ting Liang, Bei-Yi Chen</i>	
CAFANet: Cascade Appearance Flow Assemble Network for Virtual Try-On	505
<i>Liang-Ying Ke, Jocelyn Liao, Chih-Hsien Hsia</i>	
SFANet: Spatial-Aware Feature Aggregation Network for Driver Distraction Detection	507
<i>Liang-Ying Ke, Yi-Hsun Wu, Chih-Hsien Hsia</i>	

Exploring the Effectiveness of Nursing Students Using Digital Board Games for Learning Dementia Care: An Observation Study.....	509
<i>Yi-Chun Shieh, Chiu-Mieh Huang, Su-Fei Huang, Jong-Long Guo</i>	
Developing a Web-Based System to Enhance English Proficiency and Third Language Acquisition Among Non-Native Speakers.....	511
<i>Ssu-Ying Lin, Nan-Ching Tai</i>	
Utilizing AR Glasses for Identifying Smart Appliance Based on Appliance Relative Locations Within Smart Home.....	513
<i>Hua-En Chang, Xin-Mao Huang</i>	
Enhancing Solution Diversity in Arithmetic Problems Using Fine-Tuned AI Language Model.....	515
<i>Chang-Yu Lee, I-Wei Lai</i>	
Body Acupoint Localization and Visualization with Mixed Reality Glasses	517
<i>Wen-Chuan Wu, Ya-Chun Kang</i>	
Nursing Students' Experiences with the Use of a Interactive Response Systems	519
<i>Hsiao-Pei Hsu, Li-Ting Lu, Jong-Long Guo, Chiu-Mieh Huang</i>	
An Adaptive Three-Dimensional Indoor Positioning Using Multi-Anchor UWB Wireless Communications.....	521
<i>Yung-Fa Huang, Guan-Yi Chen, Hsin-Cheng Wu</i>	
Design of D-Band High-Order Modes Bandpass Filter with Dual-Mode Cavities and Bypass Coupling	523
<i>Hung-Chi Chou, Tzong-Dar Wu, Kwong-Kau Tiong, Tung-Yi Wu, Li-Chi Chang</i>	
Compact Waveguide High-Pass Filter Utilizing Waveguide Stub Structure	525
<i>Yan-Jie Wang, Tzong-Dar Wu, Tung-Yi Wu, Kwong-Kau Tiong, Li-Chi Chang</i>	
Deep Learning Object Detection for Vehicle-To-Everything Systems with ROS 2.0 Distributed Communication Architecture.....	527
<i>Chia-Hsin Cheng, Kuo-Ting Huang, Yung-Fa Huang, Yi-Xuan Xu, Kai-Siang Liao</i>	
Fully Connected Neural Network Based Lifting Scheme with Adaptive Split for Image Compression.....	529
<i>Hsi-Chin Hsin, Chien-Kun Su, Cheng-Ying Yang</i>	
Comparison of Circular Polarization Antenna Arrays With/Without Sequentially Rotated Elements.....	531
<i>Jheng-Yong Gao, Ming-Tien Wu, Ming-Lin Chuang</i>	
Design and Operation of MEMS Fabricated No-Moving-Part Valve Micropump	533
<i>Rueihung Kao, Tzongshyng Leu</i>	
Identification of Emergency Vehicle Sirens Based on Deep Learning	535
<i>Shu-Min Tsai, Ming-Lin Chuang, Wen-Pu Yang</i>	
3D-Multi-Hypothesis Tracker for Multi-Object Tracking Applications	537
<i>Minyuan Huang, Henry Leung, King Fai Ma</i>	
The Intersection of Scammers and Artificial Intelligence	539
<i>Wai Yie Leong, Yuan Zhi Leong, Wai San Leong</i>	
Bias Elimination Network and Style Transfer for Facial Expression Recognition.....	541
<i>Yo-Shin Liu, Jian-Jiun Ding</i>	

3D Brain Tumor Segmentation in Multimodal MRI Images	543
<i>Nisar Ahmad, Yao-Tien Chen</i>	
Mask-ElIoU: An ElIoU Based Feature-Guided Association for Person Tracking in Sports Events	545
<i>Yu-Yung Kao, Po-Yung Chou, Cheng-Hung Lin</i>	
Design of Home-Care Based Artery Ultrasonic Transceiver for Diagnosis of Carotid Stenosis	547
<i>Chun-Ting Hsieh, Yun-Yu Hsieh, Wei-Cheng Lin</i>	
Proposal for Cleansing-Free Skin Visualisation Using Deep Learning	549
<i>Aika Kuramoto, Kensuke Yotsumoto, Hiroko Kawanobe, Megumi Nakashima, Makoto Hasegawa</i>	
A Cloud-Edge Integrated Fall Detection System Based on Skeleton Recognition and Machine Learning	551
<i>Ming-An Chung, Yi-Ju Hsieh</i>	
Construction of Elderly Monitoring Platform Using Monitoring Gateway.....	553
<i>Kohichi Ogawa</i>	
Low-Power Optimization Design of 20-Bit Digital Shift Register for Phase-Locked Loop Applications.....	555
<i>Yue-Fang Kuo, Wei-Yang Chen, Su-Wei Chang</i>	
Evaluation of Image Interpolations for AMD Detection on OCT Images Using Mobile-OCT CNN Model	557
<i>Chun-Han Chen, Zi-Heng Lin, Cheng-Hung Dixson Lin, Cheng-Kai Lu, Jia-Kang Wang, Tzu-Lun Huang</i>	
Low Complexity Continuous Rain Density Estimation Using RISTA Technique for Single Image Rain Streak Removal.....	559
<i>Ko-Yang Chao, Yu-Hsuan Lee</i>	
A Low-Area Hardware and Architecture Design of Truncation- And Rounding-Based Approximate Multiplier for Artificial Intelligence Applications	561
<i>Chieh-Wei Wu, Li-Chieh Wang, Wei-Xun Chen, Yu-Xiang Hong, Shu-Yen Lin</i>	
Carrier-Based Switching Analysis of a 3-By-3 Matrix Converter	563
<i>Keng-Yuan Chen, Wen-Chun Kao</i>	
Handshake Intra-Body Communication Using Impedance Adjustment Circuit.....	565
<i>Haruto Kawai, Manae Ono, Mitsuru Shinagawa</i>	
An Implementation of Java Programming Assistant System in University Course.....	567
<i>Soe Thandar Aung, Nobuo Funabiki, Xiqin Lu, Khaing Hsu Wai, Yanhui Jing, Wen-Chung Kao</i>	
On Installation of Java Programming Learning Assistant System Platform in University Course.....	569
<i>Soe Thandar Aung, Nobuo Funabiki, Xiqin Lu, Khaing Hsu Wai, Yanhui Jing, Wen-Chung Kao</i>	
Environment Deployment Using Docker Over P2P Networks: A Building Process Experimentation.....	571
<i>Hirotaka Niitsuma, Shinji Sugawara</i>	
Research on Two-Factor Authentication of Palm Print Image Recognition and Palm Vein Graphic	573
<i>Chi-Hung Wang, Juan-Ling Guo, Yuh-Shyan Hwang</i>	

Multi-Lead Branch Multi-Class Arrhythmias Classification Based on Selective Kernel Block	575
<i>Yu Wang, Tao Yang, Chao-Xin Xie, Ming-Hui Fan, I-Chun Kuo, Xin-Kang Wang, Shih-Lun Chen, Liang-Hung Wang</i>	
Risk Stratification Model of Sudden Cardiac Death	577
<i>Tian-Yun Ji, Chao-Xin Xie, Tao Yang, I-Chun Kuo, Shih-Lun Chen, Liang-Hung Wang</i>	
16-Channel EEG Signal Acquisition Board for SSVEP	579
<i>Hong-Ji Chen, Yan-Yao Lan, Liang-Hung Wang, I-Chun Kuo, Pao-Cheng Huang</i>	
Multi-Classification of Sleep Apnea Syndrome Based on Transfer Learning	581
<i>Pei-Dong Liu, Liang-Hung Wang, Xin Li, Pao-Cheng Huang, Ming-Hui Fan</i>	
Estimating the Privacy Budget for Differential Privacy by Machine Learning	583
<i>Ying-Hsuan Wang, Shih-Hsuan Yang, Yu-Chi Chen</i>	
Investigating Vulnerabilities in RSA-Like Cryptosystems Through Lattice-Based Attacks on Small Exponent Keys	585
<i>Sou Kumagai, Shota Kanzawa, Samsul Huda, Yuta Kodera, Yasuyuki Nogami</i>	
HLS Scheduling Driven Encoded Watermarking for Secure Convolutional Layer IP Design in CNN.....	587
<i>Anirban Sengupta, Vishal Chourasia, Aditya Anshul</i>	
Robust Watermarking of Loop Unrolled Convolution Layer IP Design for CNN Using 4-Variable Encoded Register Allocation	589
<i>Anirban Sengupta, Vishal Chourasia, Aditya Anshul, Nitish Kumar</i>	
A Consideration of Application of Reinforcement Learning to Virtual Network Embedding.....	591
<i>Mizuki Hitosugi, Kouji Hirata</i>	
SRv6-Based Route Shortening for Optimizing Communication Resources in Multi-Homed Environments.....	593
<i>Takeshi Goto, Ryo Yamamoto, Satoshi Ohzahata</i>	
Capacity Map Estimation Method Based on LOS/NLOS Identification in Factory Environments.....	595
<i>Kaito Tanaka, Yoshiaki Nishikawa, Shino Shiraki, Takahiro Matsuda, Eiji Takahashi, Takeo Onishi, Toshiki Takeuchi</i>	
Experimental Study on the Effect of Time Synchronization Errors in VANET	597
<i>Shoma Makimori, Ryo Yamamoto, Satoshi Ohzahata</i>	
Evaluation of Handover Schemes and Switching Between Different Communication Systems by Drone Radio Stations.....	599
<i>Koyo Aoyama, Takefumi Hiraguri, Kakeru Hirata, Takahiro Matsuda, Tomotaka Kimura</i>	
Sensor Response-Based Localization Using the Probability Distribution of Intersensor Distances.....	601
<i>Shino Shiraki, Kouta Okada, Takahiro Matsuda, Shigeo Shioda</i>	
The Development of GPS Trajectory Filter for Agricultural Machinery Application	603
<i>Yung-Hsing Peng, Ying-Hsu Chen, Po-Cheng Huang, Ho-Chun Lin, Szu-Hsuan Wang, Kuo-Chuan Wu</i>	
Spatial Performance Analysis of V2X with Sidelink NOMA with Multiple Interfering Vehicles.....	605
<i>Tomoki Fuchikami, Takeshi Hirai, Naoki Wakamiya</i>	

VM Migration Control Considering Terminal Location in Multi-Stage Information Processing System	607
<i>Hayato Umeki, Kazutoshi Nakane, Yukinobu Fukushima, Celimuge Wu, Yusheng Ji, Tutomu Murase</i>	
Robot Position Control Taking Account of Network Delays on Dual-User Operation of Remote Robot with Force Feedback	609
<i>Pingguo Huang, Mizuki Inui, Yutaka Ishibashi, Yuichiro Tateiwa</i>	
Relay Node Selection Method for Multiple Autonomous Mobile Robots Forming Ad Hoc Networks Considering the Location and Time Limit of Relay Node.....	611
<i>Yuma Hanazawa, Tutomu Murase</i>	
Improved Delay-Phase Hybrid Precoding for THz Massive MIMO-OFDM Downlink Systems	613
<i>Wei-Cheng Huang, Jung-Chieh Chen</i>	
An Efficient Co-Processor Design of Deformable Convolutional Network for Image Semantic Segmentation	615
<i>Kuang-Hung Chen, Reng-Jie Chen, Tai-En Chung</i>	
A Three Reference Voltage 0.5V 10-Bit SAR-ADC Using Merge Split Capacitor Switching Scheme in 40nm CMOS	617
<i>Ko-Chi Kuo, Sin-Cong Huang, Chun-Wei Huang</i>	
Difficulty Analyses of Yoga Poses with Center of Gravity Distribution of Body Area by OpenPose Keypoints Detection	619
<i>Cheng-Liang Shih, Jun-You Liu, Irin Tri Anggraini, Yanqi Xiao, Nobuo Funabiki, Chih-Peng Fan</i>	
Efficient DSP Equalization Algorithm and Architecture Designs for High Speed Serial Links.....	621
<i>Chun-Kai Tseng, Chi-Dong Tseng, Yin-Tsung Hwang</i>	
Social Robot Facial Expressions on MDS.....	623
<i>Chen-Rao Zhong, Chun-Ching Chen, Jin-Long Lin</i>	
The Design of an AI Integrated Service Platform for Infants and Children Care.....	625
<i>Yen-Hsi Cheng, Pei-En Li, Sheng-Ming Wang, Ko-Chiu Wu, Hsiao-Yue Tsao</i>	
Influence of Landmark Pictures and Induced Text on User Selection in Wayfinding Decision	627
<i>Chun-Wei Chang, Pei-Cih Zeng, Ko-Chiu Wu</i>	
Conducting Usability Testing on Consumer Electronics: A Real Experience	629
<i>José E. L. Fernandes, André R. Da Silva Conceição, Orlewilson B. Maia, Eddie B. De Lima Filho, Lorena L. B. De Paula, Mateus V. Said</i>	
Empirical Study on Usability and User Experience of Vehicle-Mounted AR-HUD	631
<i>Jin-Long Lin, Meng-Cong Zheng, Chen-Rao Zhong</i>	
An Unsupervised Machine Learning Scheme for Estimating Layer Thickness Ratio in Bilayer Thin Films.....	633
<i>Ming-Che Chen, Yi-Wen Chen, Min-Yu Lin, Wan-Jung Chang, Ying-Nien Chou, Zhe-Lun Chang</i>	
Research on the Application of Smart Internet of Things in Hemodialysis Treatment of Kidney Disease	635
<i>Jui-Yun Liu, Zhi-Yu Lin, Jian-Chiun Liou</i>	

Grid Generation Using Deep Learning on Pupil Smartphone Images for Dry Eye Self-Medication	637
<i>Ran Wainai, Kaito Okazaki, Makoto Hasegawa</i>	
Designing an Application to Assist Wheelchair Users in Sports Activities Through Image Recognition and Interactive Feedback.....	639
<i>Pei-Jung Lin, Jen-Wei Chang, Kai-Yu Lin</i>	
Modernizing Terrestrial Television Environments with Content Recommendation.....	641
<i>Sergillam Barroso Oliveira, Petrina Kimura, Haydê Machado, Tiago Souza, Eddie B. De Lima Filho</i>	
Acoustic Scene Classification Using Perceptually Weighted Log Mel Spectrogram and Bottom-Up Broadcast Neural Network	643
<i>Riyad Ali Ahmad Abuirbaiha, Chang-Hsing Lee, Cheng Chang Lien</i>	
Research on Three-Dimensional Measurement and Analysis of Spatial Sound Field	645
<i>Po-Chun Ting, Yu-Cheng Liu</i>	
A Closed-Form Estimation Method of Heat Diffusion Time Using Graph Fourier Transform	647
<i>Chien-Cheng Tseng, Su-Ling Lee</i>	
A Graph Signal Denoising Method Using Eigenvector Associated with Minimum Eigenvalue.....	649
<i>Chien-Cheng Tseng, Su-Ling Lee</i>	
Computation of Personalized PageRank Using Cayley-Hamilton Theorem	651
<i>Su-Ling Lee, Chien-Cheng Tseng</i>	
Computing Graph Fourier Transform Centrality with Graph Filter Designed by Hermite Polynomial	653
<i>Chien-Cheng Tseng, Su-Ling Lee</i>	
Explainable AI and Statistical Learning for Enhanced Abnormal Detection in O-RAN Networks.....	655
<i>Chih-Hao Yao, Yu-An Chen</i>	
A Service Architecture for TV Receivers Running Different Operating Systems	657
<i>Ivo Machado, Fabricio Izumi, Daniel Xavier, Eddie B. De Lima Filho, Rômulo Fabricio, Samuel V. Costa</i>	
An Approximate Solution Using K-Shortest Path and Reinforcement Learning for a Load Balancing Problem in Communication Networks	659
<i>Himeno Takahashi, Norihiko Shinomiya</i>	
Distributed Relay Selection Using Spatial Modulation and Its Variants	661
<i>Li-Zhen Hsu, Yinman Lee</i>	
Enhancing 3D Printer Functionality Through HID-Based Control System Development	663
<i>Seung Jun Lee, Woo Bin Lee</i>	
Supplementary AI-Enabled Website to Bilingual Picture Book to Learn English with English.....	665
<i>Lori Tai, Kevin Y. Wang</i>	
Prototype Design of an Intelligent Internet of Things System Combined Green Energy Storage Device.....	671
<i>Ya-Chun Chen, Hsien-Huang Peter Wu, Kuo-Hsien Hsia, Yung-Tsung Cheng</i>	
Implementing Blockchain Technology in Children's Vaccination Process Using Raspberry Pi.....	673
<i>Muh. Fauzan Adithya, Rendy Munadi, Arif Indra Irawan</i>	

Implementation of Embedded Systems for Light and Shadow Installation Art.....	675
<i>Zuo-Yi Yang, Chi-Wen Hsieh</i>	
Integrating NVIDIA Jetson Nano as a Data Server in IIoT Ecosystems: A Case Study.....	677
<i>Adriel Vasques, Andrey R. R. Bessa, José E. B. S. Linhares, Mateus O. Silva, Gustavo M. Torres, Matheus S. Uchôa, Myke D. M. Valadão, Edma V. C. U. Mattos, Antônio M. C. Pereira, Agemilson P. Silva, Allan C. Brito, Rômulo S. F., Waldir S. S., Celso B. Carvalho</i>	
A PUF-Based Mutual Authentication Protocol with Fuzzy Extractors for Biometric Identification.....	679
<i>Wei-Bang Ma, Wai-Chi Fang</i>	
Architecture for Industrial Asset Sensing Using LoRaWAN and Acquisition Microservice.....	681
<i>Andrey R. R. Bessa, José E. B. S. Linhares, Matheus S. Uchôa, Adriel V. Dos Santos, Diego A. Amoedo, Maria R. A. Souza, Edma V. C. U. Mattos, Antônio M. C. Pereira, Agemilson P. Silva, Allan C. Brito, Rômulo S. F., Jean A. O. Nunes, Madson R. Lemos, Maura R. A. Costa, Waldir S. S. Junior, Celso B. Carvalho</i>	
Construction of Cycles with Various Lengths in Dual Cube Extensive Networks	683
<i>Shin-Shin Kao</i>	
A Preliminary Study on the Collaborative Playing Piano Automatic with Deep Learning	685
<i>Varinya Phanichraksaphong, Karuna Yampray</i>	
A Multimodal Learning Approach for Translating Live Lectures into MOOCs Materials.....	687
<i>Tzu-Chia Huang, Chih-Yuan Chang, Hung-I Tsai, Han-Si Tao</i>	
Multifunctional Guide Cane Design System	689
<i>Zhijie Hu, Tianyu Zhang, Chih-Yung Chang, Ruibing Shen</i>	
Leakage Monitoring System of Sewage Discharge Pipe.....	691
<i>Zhijie Hu, Peiyan Chai, Chih-Yung Chang, Ruibing Shen</i>	
Design of Intelligent Medicine Delivery Car in Ward.....	693
<i>Ruibing Shen, Chih-Yung Chang, Zhijie Hu, Jiahao Wu</i>	
Design of Racing Car Based on Image Recognition	695
<i>Ruibing Shen, Chih-Yung Chang, Zhijie Hu, Hongyu Lin</i>	
A 10-Bit 300MS/s Time-Interleaved Successive-Approximation Register Analog-To-Digital Converter with a Binary-Scaled Recombination Weighting Capacitor Array and Fault-Tolerant	697
<i>Ko-Chi Kuo, Hung-Yi Chang, Chun-Wei Huang</i>	
Third-Order One-Bit Switched-Capacitor Sigma-Delta Modulator with CIFF Structure	699
<i>Guo-Ming Sung, Li-Ling Zhou, Yan-Fan Jiang</i>	
A 10-Bit 200-MHz Switched-Current Pipelined Analog-To-Digital Converter for VDSL	701
<i>Guo-Ming Sung, Yu-Min Wu, Ming-Chang Tsai</i>	
A Power-Efficient LVDS Driver with a Bootstrapped Inverter-Based Pre-Driver	707
<i>Saran Natarajan, Hung-Wen Lin, Chi-Ting Ke, Mithun Sriram Challagundla, Akhila Kavassery Krishnakumar</i>	
An Audio Frequency Modulation Wireless Communication-Based Access Control Management System.....	709
<i>Ming-Che Chen, Huai-Jhan Ke, Yi-Kai Fang, Wan-Jung Chang, Liang-Bi Chen</i>	

Evaluation of Energy Efficiency for 5G Millimeter Wave Terminals	711
<i>Shu-Feng Cheng, Che-Wei Yeh</i>	
A Machine Learning Based Positioning Scheme Using Cellular Network Data	713
<i>Yu-An Chen</i>	
Establishing Color Harmony Model for Clothes Matching Based on Deep Learning.....	715
<i>Hung-Chung Li, Liang-Kai Wang, Yu-Kun Chang, Kuei-Yuan Huang</i>	
Leveraging TabNet for Enhanced Customer Churn Prediction in the Telecommunication Industry.....	717
<i>Muhammad Firdaus Alhakim, Jirayu Petchhan, Shun-Feng Su</i>	
Light-Weight Semantic Segmentation Based on Vision Transformer and Self-Supervised Learning	719
<i>Hsiu-Ming Lin, Guo-Shiang Lin, Chuan-Wang Chang, Ku-Yaw Chang, Wei-Cheng Yeh</i>	
Using Object Recognition Technologies for Intelligent Lifting Gear Identification System.....	721
<i>Wan-Yu Liao, Hsiu-Ming Lin, Chuan-Wang Chang, Guo-Shiang Lin</i>	
Explainable AI Based Statistical Learning Scheme for Joint Abnormal Detection and Power Control in O-RAN Architecture	723
<i>Yu-An Chen</i>	
A Secure Decentralized Key Backup and Social Recovery Method	725
<i>Nian-Zu Wang, Ren-Song Tsay</i>	
Smart Sewer Cleaning Machine Design	727
<i>Shih-Yi Yuan, Han-Yu Wang, Hao-Yun Pai, Hong-Xiang Zeng, Wei-Ping Wang</i>	
Dielectrophoresis Biochip for Bacteria Capture Via 3-D TiN Nano-Electrode Arrays	729
<i>Hua-Jung Lu, I-Hsuan Liao, Kuan-Ru Chou, Chun-Lung Lien, Jeng-Huei Shiau, Chao-Min Cheng</i>	
Enhancing Learning Support Functions for Projectile Motion in the VR Application HoloThrow	731
<i>Natsumi Oshiro, Tatsuro Ueda, Kazuhisa Nakasho</i>	
Optimizing 3D Clothing Models for VR: A Deep Learning Approach to Triangle Count Reduction	733
<i>Surasachai Doungtap, Varinya Phanichraksaphong, Jenq-Haur Wang</i>	
An Immersive 3D Navigation System Using 3D Gaussian Splatting.....	735
<i>Ming-Yi Chen, I-Cheng Chang, Jin-Wei Chen, Bing-Hua Yang, Cun-Fang Wun</i>	
Design and Evaluation of Virtual Reality Chinese Calligraphy-Based Rehabilitation Exercise for Neck Pain	739
<i>Ching-Chih Chou, Chung-Ming Own, Chun-Yen Cheng</i>	
Exploring the Differences Among Experiential Risk, Cognitive Imagery and Travel Attitude Via VR and 3D Stimulation Methods	741
<i>Lu Ming-Ying, Tsai Cheng-Jie, Lai Cheng-Hao, Chen Yu-Yun, Sung Nai-Wen, Lin Cheng-Yi</i>	
Exploring the Experience of Augmented Reality Applied to Children's Book-Finding App.....	743
<i>Ping-Chen Huang, Chun-Ching Chen</i>	
MistNet: A Decentralized Network Library for Sustainable Metaverse Infrastructure	745
<i>Yuki Tanaka, Vincent Kasior, Toshiya Takami</i>	
The Physical Effects of Different Tree Densities on the Older Adults Using Virtual Cycling	747
<i>Ta-Wei Tang, Chia-Liang Tsai, Meng-Jie Lyu, Tsai-Chiao Wang</i>	

AI Camera Development Suitable for Tomato Harvest Timing Estimation	749
<i>Yasuhiro Okabe, Takefumi Hiraguri, Keita Endo, Hiroyuki Shimizu, Tomotaka Kimura, Naoki Yamada</i>	
IOTA-Based Micropayment of IoT Data	751
<i>Keita Yashiki, Noriaki Kamiyama</i>	
Preliminary Study of Data Augmentation for Video QoE Evaluation	753
<i>Takeru Horita, Ryo Yamamoto, Satoshi Ohzahata</i>	
Multi-Armed Bandit Problem-Based Core Selection Method for Multi-Core Fiber Networks.....	755
<i>Funa Fukui, Yutaka Fukuchi, Kouji Hirata</i>	
Comparison of Multi-Armed Bandit Algorithms for Content Request Routing in Cache-Enabled Networks	757
<i>Yusuke Nii, Ippei Tayuki, Kouji Hirata</i>	
OLSR-Based Multiple UAV Routing Method Avoiding Collision Due to Link Crossing.....	759
<i>Akito Maeda, Kiyoshi Ueda, Takumi Miyoshi, Taku Yamazaki, Ryo Yamamoto</i>	
Modeling of Mobile Malware Propagation Considering Prevention Using Patch Distribution	761
<i>Sotaro Kajiwara, Tomotaka Kimura, Kouji Hirata, Jun Cheng</i>	
Entropy-Based Malware Detection Using One Dimensional CNN.....	763
<i>Sota Okubo, Tomotaka Kimura, Jun Cheng</i>	
Development of Automated Cat Litter and Feeding Systems Utilizing PLC, RFID, and Mobile App Integration	765
<i>Chang-Wei Huang, Jin-Shyan Lee</i>	
Use the New COTS Device to Implement a Small-Scale Malicious Attack.....	767
<i>Ta-Wei Tseng, De-Cian Li, Ching-Huang Lin</i>	
Digitization of Traditional Retail: The Impact of Content Marketing on Sales.....	769
<i>Meng-Jie Lyu, Chia-Liang Tsai, Tsai-Chiao Wang, I-Chien Chen, Meng-Hsin Liu, Ta-Wei Tang</i>	
A Smart Saddle for the Status Monitoring of Guide Dogs	771
<i>Mao-Yin Wang, Tung-Jing Fang, Lih-Jen Kau, Wen-Dih Yeh, Jwo-Shiun Sun</i>	
The Application of Anomalous Degradation Identification for Lithium-Ion Batteries of Portable Devices and Wearable Technologies	773
<i>Jeff Dunn, Cong-Sheng Huang</i>	
Vision Belt: Intelligent Assistive Device for Collision Avoidance by Using Computer Vision Technology and Ultrasonic Sensors.....	775
<i>Chi-Huang Hung, Chun-Nan Chi, Shih-Yung Huang, Chia-Hsun Hsu, Yi-An Lu</i>	
Power Visualization Smart Socket with Security Functions Based on ESP32-S Microcontroller.....	777
<i>Che-Yu Lu, Yu-Xuan Huang, Zi-Heng Lin, Yu-En Lin</i>	
The Influence of the Block Design on the ID-VD Curves of Power Transistor for E-SOA Characterization.....	779
<i>Chun-Chih Chen, Shih-Chieh Chien, Chien-Wei Wang, Yu-Sheng Chiu, Jung-Tsun Chuang, Li-Fan Chen, Chieh-Yao Chuang, Jian-Hsing Lee</i>	

Negative Triggering Current Induced the Latch-Up in the Circuit Without the ESD Device to Power	781
<i>Yeh-Jen Huang, Li-Yang Hong, Yeh-Ning Jou, Jian-Hsing Lee</i>	
ESD/Latch-Up Immunities Enhancements of HV NLD MOSs by the Embedded Discrete SCR/Schottky Alternating Arrangement Design at the Drain Side.....	783
<i>Xiu-Yuan Yang, Shen-Li Chen, Ting-En Lin, Hung-Wei Chen, Yi-Mu Lee</i>	
Study of Silicide Blocking for GGNMOS Performance and Turn-On Time in CMOS Process.....	787
<i>Er-Wen Chien, Hao-En Cheng, Chun-Yu Lin</i>	
Metal Skin Effect and Metal Width Impacting on ESD Performances.....	789
<i>Shao-Chang Huang</i>	
Latchup-Reliability Impact of High-Voltage nLDMOSs with the Parasitic Schottky Area Modulation in the Source Side	791
<i>Ting-En Lin, Shen-Li Chen, Xiu-Yuan Yang, Hung-Wei Chen, Yi-Mu Lee</i>	
A Bidirectional ESD Protection Circuit with High Reliability and Low Leakage for Consumer Electronic Products.....	793
<i>Chun-Cheng Chen, Chun-Yu Lin</i>	
Skeleton-Based Action Recognition and Evaluation Using Dynamic Time Warping Algorithm Enhanced by Spatial-Temporal Feature Engineering Techniques.....	795
<i>Shou-Hsuan Chen, Hong-Rui Pan, Shi-Yu Lai</i>	
A Railway Inspection System Based on a Semantic Segmentation Network and Image Processing	797
<i>Ming-An Chung, Chen-You Gao</i>	
Enhancing Dialogue Discourse Coherence Through Query Reconstruction	799
<i>Zheng-An Zhu, Sung-Wei Tseng, Chen-Kuo Chiang</i>	
Application of LSTM Prediction for Moisture Content of Feed Processes	801
<i>Chih-Jer Lin, Yi-Chia Chiu</i>	
NeRF in the Water: Solving Underwater Distortion Problem in Novel View Synthesis	803
<i>Yun-Chen Chang, Min-Chih Hsu, Chih-Yi Chen, Ching-Chun Huang</i>	
Real-Time Vehicles Detection with YOLOv8	805
<i>Chih-Jer Lin, Chi-Mo Lee</i>	
Data Augmentation by Prompt Tuning on Natural Language Understanding Tasks	807
<i>Yu-Hao Wang, Chia-Ming Chang, Yi-Hang Tsai, San-Yih Hwang</i>	
Super Resolution for Surveillance Camera's Videos by Applying CodeFormer*	809
<i>Jun-Hao Chen, Masahiro Tanaka</i>	
Using Large Language Model and Speech Synthesis Technology to Achieve Realistic Interactive Experiences in Smart City Applications	811
<i>Cheng-Han Zhou, Hsuan-Chih Ku, Yi-An Chen, Ko-Wei Huang, Shih-Hsiung Lee</i>	
Exploring Electronic Ticketing Adoption in Taiwan's Domestic Public Transportation Sector	813
<i>Chun-Ting You, Liang-Bi Chen, Szu-Yu Kuo</i>	
Evaluation of the Effect of Foggy Image Generation on the Performance of the YOLOv7-Based Object Detection Model	815
<i>Ming-An Chung, Chih-Wei Yang, Chia-Wei Lin</i>	

A Vision Transformer Model-Based Shipping Container Damage Inspection Scheme.....	817
<i>Xiang-Rui Huang, Guan-Zhi Huang, Szu-Yu Kuo, Liang-Bi Chen</i>	
Using Consumption Value Theory to Explore Users' Intention to Use MaaS	819
<i>Ya-Ling Kao</i>	
A Fast and Scalable Deployment Scheme of 5G Containerized Network Functions Using Docker Compose.....	821
<i>Wen-Ping Lai, Hong-Lun Lai</i>	
A Roadside Unit Software Platform for Intelligent Transportation System Applications	823
<i>Chih-Han Su, Xue-Yang Cheng, Shao-Hua Wang, Yung-Jen Hsu, Da-Wei Chang, Chia-Heng Tu, Wei-Hsun Lee</i>	
DAT: Dual-Aspect Transformer for Travel Time Prediction	825
<i>Hui-Ting Lin, Hao Dai, Vincent S. Tseng</i>	

Author Index