

[A1] Intelligent Mixed-Mode and Heterogeneous Integration Circuits and Systems

Intl Conference Hall

Chair: Jen-Shiun Chiang & Hsin-Liang Chen, Tamkang University, TW

- A1-1 13:10-13:25 **A Hybrid Flash and Incremental Analog-to-Digital Converter for Telemedicine Applications**
Cheng-Han Lin, Hsin-Liang Chen and Jen-Shiun Chiang, Tamkang University, Taiwan
- A1-2 13:25-13:40 **A 5 Gb/s Receiver with Decision Feedback Equalizer and Baud-Rate Clock and Data Recovery Circuit for 8K Displays in 90 nm CMOS Process**
Wei-Ting Lin, Hung-Yen Lin and Horng-Yuan Shih, TamKang University, Taiwan
- A1-3 13:40-13:55 **A Second-Order Noise Shaping SAR ADC with 8x Fully Passive Gain Circuit Technique**
Chuang-Hsuan Chueh, Yun-Chieh Chang, Hsin-Liang Chen, Jen-Shiun Chiang, Tamkang University, Taiwan
- A1-4 13:55-14:10 **A Dual-Loop Cdr Circuit with Dual-Mode Capacitor Multiplier-Based Loop Filter and Active Inductor Ring Vco**
Wei-Bin Yang, Che-Chia Chuang and Hsiao-Yen Peng, Tamkang University, Taiwan

[A2] Intelligent Applied Science and Technologies

Conference Room 1

Chair: Sheng-Tao Chen, R.O.C. Air Force Academy, TW; Chia-Te Liao & Feng-Tsang Wu, R.O.C. Air Force Institute of Technology, TW

- A2-1 13:10-13:25 **AIoT-Based Smart Aerator System for Aquaculture**
Feng-Tsang Wu, Chin-Ang Li, Jheng-Long Chen and Chih-Yuan Chen, R.O.C. Air Force Institute of Technology, Taiwan
- A2-2 13:25-13:40 **IoT-Based Intelligent Aquaponics System**
Chin Ang Li, Jheng Long Chen, Feng Tsang Wu and Shi Peng Huang, R.O.C. Air Force Institute of Technology, Taiwan
- A2-3 13:40-13:55 **Integrating Sustainability into ERC-20 Token Development on Ethereum**
Chia-Hung Kao, Yu-Chen Hu and Luo-You Chi, R.O.C. Air Force Institute of Technology, Taiwan
- A2-4 13:55-14:10 **Numerical simulation analysis on electromagnetic effect of offshore wind power 1 by 8 array**
Chia-Te Liao, R.O.C. Air Force Institute of Technology, Taiwan; Yu-Chan Lin, R.O.C. Air Force Academy, Taiwan; Ting-Fang Li, Aerospace Technology Research Development Center, Taiwan; Fu-Long Huang, Cheng-Xiang Zheng and Jie-Sen Zhao, R.O.C. Air Force Institute of Technology, Taiwan

OCT. 25 (FRI)

[A3] Smart Manufacturing and Functional Materials

Conference Room 3

Chair: Li-Wei Tseng, National Changhua University of Education, TW; Chau-Yi Tsai, National Formosa University, TW

- A3-1 13:10-13:25 **Microstructure of FeMnAlNiCr Shape Memory Alloys**
Li-Wei Tseng and Wei-Cheng Chen, National Changhua University of Education, Taiwan
- A3-2 13:25-13:40 **Drag-Reducing Testing Set-Up for Biomimetic Functional Surface**
Chau-Yi Tsai, Bo-Shiuan Lai, Yu-Shiuan Tan, Yi-Shiang Tzeng, National Formosa University, Taiwan
- A3-3 13:40-13:55 **Effect of Different Arc Angle of Machine Tool Supports on the Geometric Accuracy of the Base**
Li-Wei Tseng, Po-Hsiang Chuang, National Changhua University of Education, Taiwan; Wei-Lun Huang, Precision Machinery Research & Development Center, Taiwan
- A3-4 13:55-14:10 **Mechanical Properties of FeNiCoAlTaB Single Crystal**
Li-Wei Tseng, Wei-Cheng Chen, National Changhua University of Education, Taiwan; Chih-Hsuan Chen, National Taiwan University, Taiwan

[B1] Best Paper Competition

Intl Conference Hall

Chair: Yih-Jiun Lee, Chinese Culture University, TW

- B1-1 15:40-15:55 **Cell Segmentation in Fluorescence Microscopy Images**
Shao-Yun Yin, National Ilan University, Taiwan; Wei-Wen Hsu, National Taitung University, Taiwan; Chih-Hsien Hsia, National Ilan University, Taiwan
- B1-2 15:55-16:10 **Using Asymmetric Surface Relief Gratings to Unify the Efficiency in Certain Field of View for See-Through Display**
Mu-Chen Tsai, Chien-Teng Lin, Ying-Pin Tsai and Fu Li Hsiao, National Changhua university of Education, Taiwan
- B1-3 16:10-16:25 **Stability Improvement of Grid-Connected Wind Doubly-Fed Induction Generators Using a Vanadium Redox Flow Battery-based Energy Storage System**
Li Wang, Yu-Wei Liou and Meng-Chian Li, National Cheng Kung University, Taiwan
- B1-4 16:25-16:40 **Combining Image Recognition and Robotic Arms to Achieve Automated Unloading and Resetting of RJ45 Connectors**
Chien-Wu Lan, Wen-Chun Wu, Xin-Yuan Wang, Yi-Tien Chiang and Shu-Yu Chen, National Defense University, Taiwan; Te-Sheng Hsiao, National Yang Ming Chiao Tung University, Taiwan
- B1-5 16:40-16:55 **Design and Implementation of a Cable-Driven Wrist Exoskeleton with Enhanced Adaptability**
Ting-Yi Lin, Zhi-Yong Chen and Jen-Yuan Chang, National Tsing Hua University, Taiwan
- B1-6 16:55-17:10 **Evaluating the Impact of Eye-Tracking Technology on Simulated Takeoff And Landing Flight Training**
Chieh-Ju Juan, Chih-Yu Chang, Po-Hsiang Chen and Yi-Zhen Chen, R.O.C. Air Force Academy, Taiwan

OCT. 25 (FRI)

[B2] Machine Learning Technologies and Applications

Conference Room 1

Chair: Tang-Yu Lai & Chieh-Ju Juan, R.O.C. Air Force Academy, TW

- B2-1 15:40-15:55 **Robust Control of Non-Holonomic Constraint Robot Trajectory Tracking Based on Cerebellar Model Articulation Controller**
Tsai Kuen-Cheng, Yu-Chen Hu, Zih-Pin Su, Qin-Wei Luo, R.O.C. Air Force Institute of Technology, Taiwan
- B2-2 15:55-16:10 **Effect of porosity defects on the mechanical properties of two-dimensional SiC**
Jia-Yuan Chen, Chia-Wei Huang, National Kaohsiung University of Science and Technology, Taiwan; Tang-Yu Lai, R.O. C. Air Force Academy, Taiwan
- B2-3 16:10-16:25 **Study on the Interference Effects of Offshore Wind Farm Arrays on GCA Radar at Specific detection Heights**
Chia-Te Liao, R.O.C. Air Force Institute of Technology, Taiwan; Yu-Chan Lin, R.O.C. Air Force Academy, Taiwan; Wan-Ru Huang, Aerospace Technology Research Development Center, Taiwan; Ying-Xian Chen, Kai-Ruei Chen and Chien-Hung Chen, R.O.C. Air Force Institute of Technology, Taiwan
- B2-4 16:25-16:40 **Application Research on Optimizing TDMA Scheduling Strategies in Tactical Data Links Using Deep Reinforcement Learning**
Chia Hung Kao, R.O.C. Air Force Institute of Technology, Taiwan; Teh-Lu Liao, National Cheng Kung University, Taiwan

[B3] Intelligent Multimedia Computing

Conference Room 3

Chair: Chih-Hsien Hsia, National Ilan University, TW; Chi-Chia Sun, National Taipei University, TW

- B3-1 15:40-15:55 **Implementation of Telecontrol and Telemetry Systems in Robots for Monitoring in All Terrains**
Mas Nurul Achmadiyah, Wen-Kai Kuo, National Formosa University, Taiwan; Chi-Chia Sun, National Taipei University, Taiwan
- B3-2 15:55-16:10 **Progressive Latent Fusion Mapper for Hairstyle Transfer**
Liang-Ying Ke, National Ilan University, Taiwan; Chu-Chun Hsiao, Asia American International Academy, Taiwan; Chih-Hsien Hsia, National Ilan University, Taiwan
- B3-3 16:10-16:25 **Enhancing Exercise Engagement through AI-Driven Virtual Training and Game-Based Animation**
Yan-Lun Dai, Chien-Wen Cheng, Jun-Ye Zhou and Tz-Heng Fu, National Taipei University of Technology, Taiwan
- B3-4 16:25-16:40 **Window-Based Vision Transformer for Finger-Vein Recognition**
Liang-Ying Ke, National Ilan University, Taiwan; Brendon Lau, Taipei American School, Taiwan; Chih-Hsien Hsia, National Ilan University, Taiwan
- B3-5 16:40-16:55 **Develop a Victim Detection Model in Rescue Operations Using Thermal Camera and Jetson Computing Platform**
Van-Khoa Pham, University of Technology and Education, Viet Nam; Chi-Chia Sun, National Taipei University, Taiwan

OCT. 26 (SAT)

[C1] Applications of Big Data Analytics

Intl Conference Hall

Chair: Sheng-Tsung Tu, Ming Chuan University, TW; Shyang-Yuh Wang, Chinese Culture University, TW

- C1-1 09:00-09:15 **An Initial Investigation into the Applications of AI Image Recognition in Sports Event Broadcasting**
Chia-Yu Wu, Ming Chuan University, Taiwan; Jiunn-Lin Wu and Ming-Hua Hsu, National Chung Hsing University, Taiwan; Chun-Fei Lin, Ministry of Education, Taiwan
- C1-2 09:15-09:30 **Climbing Diary: A Sport Application for Climber**
Yih-Jiun Lee and Yising Wang, Chinese Culture University, Taiwan
- C1-3 09:30-09:45 **The Utilization of Big Data Analytics and Algorithm Adjustment on Artificial Intelligence Discussions in Taiwan**
Shyang-Yuh Wang, Chinese Culture University, Taiwan; Huai-Shyuan Wang, St. Bonaventure Girls' Senior High School, Taiwan; Sheng-Tsung Tu, Ming Chuan University, Taiwan; Zi-Ting Huang, St. Bonaventure Girls' Senior High School, Taiwan
- C1-4 09:45-10:00 **The Impact of Green Marketing Communication and Green Purchasing**
Chueh-Chu Ou, Ling Tung University, Taiwan, Taiwan; Yu-Ting Ou, Overseas Chinese University, Taiwan; Yi-Jie Lin, Ling Tung University, Taiwan
- C1-5 10:00-10:15 **Exploring Teaching and Marketing Strategies for Community Inclusion: A Case Study of the Guantian Circular Economy**
Tai-Ho Yang, Kun Shan University, Taiwan
- C1-6 10:15-10:30 **Communicative and Management Strategies in Innovative Teaching: Exploring and Analyzing Key Elements in Prompting Teachers and Students to Become Societal Practitioners**
Tai-Ho Yang, Kun Shan University, Taiwan

[C2] Artificial Intelligence, Machine Learning, and Deep Learning I

Conference Room 1

Chair: Ching-Ta Lu, Feng Chia University, TW

- C2-1 09:00-09:15 **Enhancement of Single Channel Speech Using Perceptual Convolutional Neural Networks**
I-Ming Wang, Zi-Hao Tsai and Ching-Ta Lu, Feng Chia University, Taiwan
- C2-2 09:15-09:30 **Implementation of AI Hearing-Loss Assistive Hat**
Ching-Ta Lu, Tzu-Liang Lin, Ting-Han Ko and I-Cheng Tseng, Feng Chia University, Taiwan
- C2-3 09:30-09:45 **Implementation of Remote AI Farmer System**
Ching-Ta Lu, Yun-En Wu, Yi-Ching Wei and Yu-Han Weng, Feng Chia University, Taiwan
- C2-4 09:45-10:00 **Image Denoising Using Min-Max Filtering and Self-Attention Neural Networks**
Yen-Yu Lu and Hung-Chin Jang, National Chengchi University, Taiwan
- C2-5 10:00-10:15 **Implementation of Hearing Impaired Assistive System Using Visual Aids**
Yen-Yu Lu, National Chengchi University, Taiwan; Yi-Ru Lu, National Taipei University of Technology, Taiwan; Hung-Chin Jang, National Chengchi University, Taiwan
- C2-6 10:15-10:30 **The Prediction of Energy Liberation on Lathe processing applied the Gradient Boosting Regression Tree (GBRT)**
Kuan-Ting Chen, Chien-Yun Liu and Wen-Ken Li, Chung Yuan Christian University, Taiwan

OCT. 26 (SAT)

[C3] Green Energy

Conference Room 3

Chair: Kuang-Hsiung Tan, National Defense University, TW

- C3-1 09:00-09:15 **Stability Analysis of a DC Microgrid Fed to a Multimachine Power System Using a Compressed Air Energy Storage System**
Li Wang, Yu-Cheng Hsu, Ping-Chang Lin and Ching-Chuan Tseng, National Cheng Kung University, Taiwan; Hazlie Mokhlis, University of Malaya, Malaysia; Kein Huat Chua, Universiti Tunku Abdul Rahman, Malaysia; Manoj Tripathy, Indian Institute of Technology Roorkee, India
- C3-2 09:15-09:30 **Stability Analysis of a Hybrid Wind/PV Farm Connected to a Multimachine Power System through an HVDC Link based on a Modular Multilevel Converter**
Li Wang, Zi-Hao Liao, Guan-Wei Li, Ching-Chuan Tseng, National Cheng Kung University, Taiwan; Hazlie Mokhlis, University of Malaya, Malaysia; Kein Huat Chua, Universiti Tunku Abdul Rahman, Malaysia; Manoj Tripathy, Indian Institute of Technology Roorkee, India
- C3-3 09:30-09:45 **Comparative Stability Analysis of a DC Microgrid Connected to the Simplified Taiwan Power System Using Grid Following Inverters and Grid Forming Inverters**
Li Wang, Sheng-Jie Zhang, Yu-Hsien Tseng, Ching-Chuan Tseng, National Cheng Kung University, Taiwan; Hazlie Mokhlis, University of Malaya, Malaysia; Kein Huat Chua, Universiti Tunku Abdul Rahman, Malaysia; Manoj Tripathy, Indian Institute of Technology Roorkee, India
- C3-4 09:45-10:00 **Voltage Stability Improvement of Multi-Microgrid Clusters Using Unified Power Flow Controllers**
Li Wang, Yu-Wei Liou, Meng-Chian Lee and Ching-Chuan Tseng, National Cheng Kung University, Taiwan; Hazlie Mokhlis, University of Malaya, Malaysia; Kein Huat Chua, Universiti Tunku Abdul Rahman, Malaysia; Manoj Tripathy, Indian Institute of Technology Roorkee, India
- C3-5 10:00-10:15 **Stability Analysis of Grid-Tied Wind Permanent Magnet Synchronous Generators Using an Energy Storage System Based on Vanadium Redox Flow Battery**
Li Wang, Yu-Wei Liou and Meng-Chian Li, National Cheng Kung University, Taiwan
- C3-6 10:15-10:30 **Stability Improvement of Renewable Energy Sources Connected to a Multi-Terminal High-Voltage Direct-Current Link Based on a Modular Multilevel Converter**
Li Wang, Ting-You Li, Yu-Ju Lee, Ching-Chuan Tseng, National Cheng Kung University, Taiwan; Hazlie Mokhlis, University of Malaya, Malaysia; Kein Huat Chua, Universiti Tunku Abdul Rahman, Malaysia; Manoj Tripathy, Indian Institute of Technology Roorkee, India

OCT. 26 (SAT)

[D2] Internet of Things

Conference Room 1

Chair: Shan-Jen Cheng, Asia Eastern University of Science and Technology, TW

D2-1 13:00-13:15 **BPNN PREDICTION FOR STATE OF CHARGE LITHIUM-ION BATTERY BASED ON IOT SYSTEM**

Shan-Jen Cheng, Zheng-Xian Wu, Jie-Ying Wu, Yu-Wei Tu and Bo-Shan Yang, Asia Eastern University of Science and Technology, Taiwan

D2-2 13:15-13:30 **Enhancing Edge Computing in High-Density IoT for Improved Service Quality and Privacy Protection**

Hung-Chin Jang and Ting-Ching Li, National Chengchi University, Taiwan

D2-3 13:30-13:45 **Design of a Colour Perception Monitoring System for Signal Lights in Industrial Automation Based on IoT Technology**

Jiun-Hung Lin, Che-Hung Yeh, Hao-Wei Hsu and Cheng-You Lai, National Kaohsiung University of Science and Technology, Taiwan; Yung-Tsung Cheng, National Cheng Kung University, Taiwan

[D3] Artificial Intelligence Applications and Technologies

Conference Room 3

Chair: Hao-Shang Ma , National Taichung University of Science and Technology , TW

D3-1 13:00-13:15 **Applying Deep Learning for Sentiment Analysis: A Case Study of Prediction 2023 President Election**

Yu-Ting Chang and Hsiu-Min Chuang, Chung Yuan Christian University, Taiwan

D3-2 13:15-13:30 **Investigating the Peacefulness of Brain Connectivity**

Wai Yie Leong, INTI International University, Malaysia; Yuan Zhi Leong and Wai San Leong, Schneider Electric Singapore Pte. Ltd, Singapore

D3-3 13:30-13:45 **Defect Detection of Optical Microscope Images in Semiconductor Fabrication Process Based On Pre-Trained Convolution Neural Network**

Ting Chun Lee, Wei Cheng Hung, Mu-Chen Tsai, Chuan-Chieh Lin and Fu-Li Hsiao, National Changhua University of Education, Taiwan

D3-4 13:45-14:00 **Fault Detection in Air Pump Assembly Based on Sound Classification Using One-Dimensional Convolutional Neural Networks**

I-Hsin Hsu, Ting-Chun Lee, Fu-Yu Chu and Fu-Li Hsiao, National Changhua university of Education, Taiwan

OCT. 27 (SUN)

[E1] Artificial Intelligence, Machine Learning, and Deep Learning II

Conference Room 1

Chair: Chien-Wu Lan, National Defense University, TW

- E1-1 09:00-09:15 **LSTM Neural Network for Current Prediction and Harmonic Analysis in Solar Power Systems**
Zi-Xu Liu, National Changhua University of Education, Taiwan; Pratyush Singh, Indian Institute of Technology (BHU), Varanasi, India; Wen-Ren Yang and Wei-Tzer Huang, National Changhua University of Education, Taiwan
- E1-2 09:15-09:30 **Utilizing Data Balancing and Ensemble Learning for Stroke Prediction**
Chun-Wei Tseng, Ling-Chun Sun, National Defense Medical Center, Taiwan; Tsung-Syuan Tseng, National Yang Ming Chiao Tung University, Taiwan; Ping-Nan Chen, National Defense Medical Center, Taiwan
- E1-3 09:30-09:45 **Implementation of an Automatic Skin Disease Identification System Using Convolutional Neural Network for Scabies in Long-Term Care Facility Residents**
Li-Chun Lee, Asia University, Taiwan; Wei-Ting Liu, National Cheng Kung University Hospital, Taiwan; Zhong-Wei Lin, Asia University, Taiwan; Ching-Ta Lu, Feng Chia University, Taiwan
- E1-4 09:45-10:00 **Assessing One-Hot Encoding in Predictive Models for Public Transportation Systems - A Case Study of Commuting Behaviour Analysis**
Abel C. H. Chen and Tzu-Yin Pai, Chunghwa Telecom Laboratories, Taiwan
- E1-5 10:00-10:15 **Recognizing Spectrogram of Machine Sounds Using Convolutional Neural Networks**
Chuan-Chieh Lin, I-Hsin Hsu, National Changhua University of Education, Taiwan; Ying-Pin Tsai, National Yang Ming Chiao Tung University, Taiwan; Fu Li Hsiao, National Changhua University of Education, Taiwan

[E2] Smart and Intelligent Manufacturing

Conference Room 3

Chair: Shin-Hung Chang, Chung Yuan Christian University, TW

- E2-1 09:00-09:15 **Using Coordinated PV Inverters Control for Voltage Regulation in Microgrid**
Yu-Jen Liu, National Chung Cheng University, Taiwan; Yih-Der Lee and Chin-Chan Cheng, National Atomic Research Institute, Taiwan; Yi-Tang Yang and Tsung-Han Kuo, National Chung Cheng University, Taiwan
- E2-2 09:15-09:30 **Rapid Development of IIoT Control Systems using Volapu IIoT Suite: A Smart Irrigation Case Study**
Tinghan Chueh, Dashuai Guo and Joseph Wang, Shenzhen Babel InfoTech Co., Ltd., China
- E2-3 09:30-09:45 **Failure Mode Analysis of IGBT Module for an EV Motor Controller**
Shin-Hung Chang, Chung Yuan Christian University, Taiwan; Yi-Shin Chen, Industrial Technology Research Institute, Taiwan

OCT. 27 (SUN)

[F1] Artificial Intelligence, Machine Learning, and Deep Learning III

Conference Room 1

Chair: Chayanon Sub-r-pa, Chaoyang University of Technology, TW

- F1-1 10:50-11:05 **Advanced Security Approach for Building Secure Containerized Manufacturing Digital Twins**
Yu-Chuan Lin, Chinese Culture University, Taiwan; Po-Kai Chiu and Benny Suryajaya, National Cheng Kung University, Taiwan
- F1-2 11:05-11:20 **Super-Resolution for Traffic Signs: A Comparative Analysis of SRGAN and ESRGAN Performance**
Chayanon Sub-R-Pa, Ming-Zhong Fan and Rung-Ching Chen, Chaoyang University of Technology, Taiwan
- F1-3 11:20-11:35 **YOLO App on Road Markings for Safer Driving**
Rung Ching Chen, Wei-Kai Chao and William Eric Manongga, Chaoyang University of Technology, Taiwan
- F1-4 11:35-11:50 **A Study of Multi-Task Learning Using a VoVNet-OSA Block Enhanced U-Net on the Med++ MNIST Dataset**
Syuan-Hao Li, Jie-Xin Li and Jing-Yuan Ting, National Taitung University, Taiwan
- F1-5 11:50-12:05 **A Traffic Sign Recognition System Design for Road Safety Assistance**
Sheng-Wen Huang, Yu-Hsun Wu, Tzu-Ching Tsai and Ching-Min Lee, I-Shou Univeristy, Taiwan
- F1-6 12:05-12:20 **Implementation of Campus Unmanned Guided Vehicle Using YOLO network with LiDAR Positioning**
Ching-Ta Lu, Hung-Hsuan Cho, Shih-Yang Chang, Kai-Wei Zhou, Tung-Yin Hsu, Yi-Hsuan Kung, Qiu-Yu Chen and Feng Chia University, Taiwan

[F2] Technology and Education

Conference Room 3

Chair: Mei-Hui Lo, Ming Chuan University, TW

- F2-1 10:50-11:05 **Unveiling the Intelligence Mechanisms Behind Optical Illusions**
Wai Yie Leong, INTI International University, Malaysia; Yuan Zhi Leong and Wai San Leong, Schneider Electric Singapore Pte. Ltd, Singapore
- F2-2 11:05-11:20 **The Development of Technology Applications in Teaching**
Mei-Hui Lo and Sheng-Tsung Tu, Ming Chuan University, Taiwan
- F2-3 11:20-11:35 **AI-Assisted Design Education: Boosting Rapid Prototyping Skills in Design Students**
Yan-Lun Dai, Chien-Wen Cheng, Tz-Heng Fu, National Taipei University of Technology, Taiwan
- F2-4 11:35-11:50 **Titanium Diffused Lithium Niobate Grating for Planar Waveguide Coupling**
Wei Cheng Hung, Fu-Yu Chu, Chuan-Chieh Lin, Ying-Pin Tsai and Fu Li Hsiao, National Changhua university of Education, Taiwan
- F2-5 11:50-12:05 **Artificial Intelligence in Education**
Wai Yie Leong, INTI International University, Malaysia; Yuan Zhi Leong and Wai San Leong, Schneider Electric Singapore Pte. Ltd, Singapore

Poster Presentation

15:40-17:10, OCT. 25 (FRI)

Chair: Chien-Hung Chen, R.O.C. Air Force Academy, TW

- PA-01 **Two-step Authentication: Muti-biometric System Using Voice and Facial Recognition**
Kuan Wei Chen, Ting Yi Lin and Wen Ren Yang, National Changhua University Of Education, Taiwan; Aryan Kesarwani and Riya Singh, Chandigarh University, India
- PA-02 **Designing an Automatic Horizontal Scaling Mechanism for Microservices Based on Api Latency Metrics**
Hung-Ming Chen, Yung-Feng Lu, Shih-Ying Chen, Po-Wei Liu and Jie-Chen Ke, National Taichung University of Science and Technology, Taiwan
- PA-03 **Bottom Tuyere Monitoring and Warning System for Basic Oxygen Furnace Steelmaking**
Yu-Te Su, Chun-Kuei Huang and Tzu-Chieh Hung, China Steel Corporation, Taiwan
- PA-04 **Integrating Attention Mechanism to Establish Lightweight YOLOV4 Wine Bottle Defect Detection Model**
Hua-Ching Chen, Xiamen Ocean Vocational College, China; Hsuan-Ming Feng, National Quemoy University, Taiwan
- PA-05 **Advances in AI for Fraud Detection**
Wai Yie Leong, INTI International University, Malaysia; Yuan Zhi Leong and Wai San Leong, Schneider Electric Singapore Pte. Ltd, Singapore
- PA-06 **Emotion Recognition Using Self-Attention Convolutional Neural Network for Interactive Learning System**
Jia-Qi Yang, Feng Chia University, Taiwan; I-Tien Chu, National Taipei University of Business, Taiwan; Ching-Ta Lu, Feng Chia University, Taiwan
- PA-07 **Development of Intelligent Shape Meter System**
Jyun-Ji Chen, Ching-Yen Lee and Yueh-Lung Wu, China Steel Corporation, Taiwan
- PA-08 **Optimizing Film Sound Post-Production: Leveraging AI-Powered Repair Assistant in Educational Settings**
Wei-Cheng Wang, China University of Technology, Taiwan
- PA-09 **Based on Artificial Intelligence Image Recognition Technology for Robotic Arm**
Shan-Jen Cheng, Asia Eastern University of Science and Technology, Taiwan; Te-Jen Chan, National Defense University, Taiwan; Jie-Ying Wu, Bo-Shan Yang, Bo-Shan Yang, Zheng-Xian Wu and Yu-Wei Tu, Asia Eastern University of Science and Technology, Taiwan
- PA-10 **Development of a BPNN-Based Portable Motor Status Diagnosis Device**
Sheng-Tao Chen, Chien-Hung Chen, R.O.C. Air Force Academy, Taiwan; Hui-Juan Zheng, Aerospace Technology Research and Development Center, Taiwan; Chiung-Lin Tsai, R.O.C. Air Force Academy, Taiwan
- PA-11 **Implementing OPC UA Architecture Using Open62541**
Shang-Te Wang, National Chengchi University, Taipei, Taiwan, Taiwan; Chien-Hung Chen, R.O.C. Air Force Academy, Taiwan
- PA-12 **Advancements in Healthcare Architecture through 5G Technology**
Wai Yie Leong, INTI International University, Malaysia; Yuan Zhi Leong and Wai San Leong, Schneider Electric Singapore Pte. Ltd, Singapore
- PA-13 **Automatic Resource Recycling Classification System**
Shih-Sung Li and Guan-Wei Chen, Chinese Culture University, Taiwan
- PA-14 **Design of a Rag Llmops Platform Using Open-Source Architecture**
Hung-Ming Chen, Hung-Ming Chen, Yung-Feng Lu and Shao-Hung Liu, National Taichung University of Science and Technology, Taiwan

09:00-10:30, OCT. 26 (SAT)

Chair: Ting-Ting Yang, National Defense University, TW

- PB-01 **Multi-Objective Design Optimization of Permanent Magnet Motor Using Nsga-II**
Ya-Ling Chang, Cheng-Min Chang, Chia-Min Ting, Hsi-Chih Chang, Chun-Chieh Chang and Jia-Yao Jhang, Industrial Technology Research Institute, Taiwan
- PB-02 **Improved Dye-Sensitized Solar Cells Incorporating Hydrangea-Shaped Scattering Layer**
Yu-Shyan Lin, Wei-Hong Chen, Shu-Hao Zhou, Shu-Hao Zhou and Yu-Pei Lin, National Dong Hwa University, Taiwan
- PB-03 **Development of Human Neck Muscle Physical Model for Rehabilitation Verification**
Cheng-Yang Lee, Yun-Ju Lee and Jen-Yuan Chang, National Tsing Hua University, Hsinchu, Taiwan
- PB-04 **A Study on the Impact of College Students' Motivation for Using New Technology Media on Their Media Literacy Skills**
Jui Ming Chen and Hsing Tung Ho, Kun Shan University, Taiwan
- PB-05 **Enhancing Poultry Farm Production Through Intelligent Manufacturing Technologies**
Wai Yie Leong, INTI International University, Malaysia; Yuan Zhi Leong and Wai San Leong, Schneider Electric Singapore Pte. Ltd, Singapore
- PB-06 **Microgrid with Variable Droop Coefficient for Power Sharing Improvement**
Kuang-Hsiung Tan, National Defense University, Taiwan; Yih-Der Lee and Shen-Szu Wang, National Atomic Research Institute, Taiwan
- PB-07 **Load Balancing in Fog Networks Using Digital Twins**
Chi-Yu Wu, Ting-Ting Yang, National Defense University, Taiwan
- PB-08 **The Combination of Audio-Visual Content Marketing And New Communication Technology Platforms is Reflected in Young People's Favoritism Towards Product Brands, as Exemplified by the T. K. Food**
Hsing-Tung Ho, Kun Shan University, Taiwan; Sheng-Tsung Du, Ming Chuan University, Taiwan
- PB-09 **The Impact of New Communication Technologies on Digital Video Production. Take Kun-Shan University Public Relations and Advertising Department for Example**
Jui Ming Chen and Hsing Tung Ho, Kun Shan University, Taiwan, Taiwan
- PB-10 **Designing a Traffic-Aware Autoscaler Based On EBPF**
Hung-Ming Chen, Yung-Feng Lu, Bing-Han Ho and Hao-En Peng, National Taichung University of Science and Technology, Taiwan
- PB-11 **Exploring the Digital Art Exhibition Experience with Immersive Music Therapy Creation as a Performance Form**
Hui Ling Ten, Shihyin Huang and Shangli Chu, Chinese Cultrue University, Taiwan
- PB-12 **A Study on the Sensationalism of APP News Alerts in Taiwan**
Chen-Yi Lee and You-Zhen Chen, Chinese Culture University, Taiwan
- PB-13 **The Prototype Design Is Based on lot And Integrates Physiological Information and Gas Monitoring Alarms**
Yung Tsung Cheng, National Cheng Kung University, Taiwan; Jiun-Hung Lin, National Kaohsiung University of Science and Technology, Taiwan; Shih-Tsang Tang, Ming Chuan University, Taiwan
- PB-14 **Exploration of Integrating Sustainable Development Goals into Interdisciplinary Communication Courses**
Yih-Shiuan Yeh, Shih-Yin Huang and Shang-Li Chu, Chinese Culture University, Taiwan