



UBI-MEDIA 2026/ IC 2026

The 13th International Conference on Ubi-Media Computing and Workshops

The 17th International Symposium on Pervasive Systems, Algorithms, and Networks

The 8th International Conference on Innovative Computing

MIOT MLMA SS_IAS SS_AAOI SS_SDA

Conference Agenda

January 18-22, 2026

@Penang, Malaysia



Schedule

Day 1 - January 18, 2026 (Sunday)

Executive Committee Meeting

Day 2 - January 19, 2026 (Monday)

	Room #A	Room #B	Room #C
Morning Session			
08:30~09:00	Registration		
09:00~09:30	Opening Conference (Room: Room #C)		
09:30~10:20	Keynote Speaker I (Room: Room #C)		
10:20~10:40	-- Coffee break --		
10:30~12:00	Session1-1	Session1-4	Session1-7
12:00~13:00	Lunch		
Afternoon Session			
13:30~15:00	Session1-2	Session1-5	Session1-8
15:00~15:30	-- Coffee break --		
15:30~17:00	Session1-3	Session1-6	Session1-9
18:00~	Banquet		

Day 3 - January 20, 2026 (Tuesday)

	Room #A	Room #B	Room #C
Morning Session			
09:00~10:30	Session 2-1	Session 2-5	X
10:20~10:40	-- Coffee break --		
10:30~12:00	Session 2-2	Session 2-6	X
12:00~13:00	Lunch		
Afternoon Session			
13:30~15:00	Session 2-3	Session 2-7	X
15:00~15:30	-- Coffee break --		
15:30~17:00	Session 2-4	Backup session	X
16:00~17:00	Closing Conference and Best Paper Award (Room #B)		

Room #A - Pangkor Room, Level 3 、 Room #B – Langkawi Room, Level 3

Room #C Main Room (c) – Datai Room, Level 2

Day 4 - January 21, 2026 (Wednesday)

Local University	
Morning Session	
09:00~10:30	Video Session #1
10:30~10:30	Video Session #2
#1	
13:00~14:30	Student Workshop #1, #2
14:30~16:00	Technology Talk #1, #2
16:00~17:00	Meeting Time

Day 5 - January 22, 2026 (Thursday)

Local University	
Morning Session	
09:00~10:30	Executive Committee Meeting
10:30~12:00	Executive Committee Meeting
Afternoon Session	
16:20~17:20	Executive Committee Meeting

Ubi-media/ IC 2026 Program

January 18-22, 2026

K-I	Room: Main Room (c) – Datai Room, Level 2
	January 19th, 9:30 - 10:20 Session Chair: Prof. Chuan-Yu Chang
	Conference and Ubi-media Keynote Speaker: Prof. David Taniar

@Room A

Session	January 19th, 2025 @Room A
Session1-1	10:30 - 12:00 Session Chair: Prof. K P Hewagamage
0362	Non-Invasive Generative AI in Moodle via RPA and Retrieval-Augmented Generation Sudam Rohanadeera and K P Hewagamage
3226	A Multi-Store Recommendation and Route Optimization System for Enhanced Grocery Shopping Bhathiya Vandebona, Pubudu Satharasinghe, Harsha Gunawardana, Sanduni Thrimahavithana and K. Hewagamage
6554	Lightweight Multi-Task CNN for Otoscopic Image Yi Tang Soon and Jun-Wei Hsieh
8084	Predicting Training Batch Time for ResNet Image Classification: A Lightweight Model for Media Workloads Shao-Gu Gong, Liang-Tsung Huang and Chao-Chin Wu
8533	A Multi-Branch Retrofit IoT Smart-Shelf System for Indonesian Restaurant SMEs: Cloud-Based Inventory Visibility to Cut Food Waste Felicia Evan, Alvian Shanardi Wijaya, Erin, Septian Eka Ady Buananta, Ajeng Wulandari, Valentinus, and Kevin Lie

Session	January 19th, 2026 @Room A
Session1-2	13:30~15:00 Session Chair: Prof. Arun Kumar Sangaiah
0698	SA-BEF: Deep Fusion of Sentinel-1/2 for Forest Biomass Estimation with Occlusion-Aware Attention Mechanisms Neelkanth Mawood, Arun Kumar Sangaiah, Alkha Mohan and Hwa-Lung Yu
0726	Networks Traffic Prediction Based on LSTM Yong Shi, Bao Li, Chao Wang and Xiaoming Tang
6732	Research on intelligent development and full life cycle operation and maintenance management of high-speed rail communication network resources Xia Hua, Yuhuan Wang and Yong Shi
8692	Intelligent Government Media Services Driven by the Integration of Semantic Graph and Context Awareness Jinnan Ma, Rizhong Wang, Arun Kumar Sangaiah and Huan-Ming Chuang
9543	Integrating Cyber Threat Management with AI in Vehicular Security Operation Center Shih-Hao Chang, Chih-Hsien Kuo, Hsin-Pei Chen and Yu-Shiun Chen

Session	January 20th, 2025 @Room A
Session1-3	15:30~17:00 Session Chair: Prof. Chih-Lin Hu
0900	Modeling Structural Tones Extraction as a Combinatorial Optimization Problem Tzu-Wei Huang, Cheng-Yang Tsai, Yun-Chi Cheng, Ssu-Yu Yeh, Chiao-Ying Su and Yu-Cheng Lin
1078	Phrase Segmentation of Jiangnan Music Using YNote Representation Yu-Chia Wang, Yung-Chi Tseng, Cheng-Yang Tsai, Tzu-Wei Huang, Shu-Yen Shih and Yu-Cheng Lin
4612	Game-Based Learning Platform Using Minecraft: A Practical Case of Reconstructing the National Taiwan Science Education Center as a Game Theme Yi-Chun Kuo and Chih-Lin Hu
5726	ECTRA: Bridging Video Lectures and Student Queries via a RAG-Based Chatbot for Timestamped and Semantic Responses Tipajin Thaipisutikul, Khasidech Jiw Yam, Kirati Ngampis, Jirayu Saejiam, Jakkrit Tansue, Thanapon Noraset, Sheng-Chih Chen, and Ying-Nong Chen
8195	HNote: Extending YNote with Hexadecimal Encoding for Fine-Tuning LLMs in Music Modeling Hung-Ying Chu, Shao-Yu Wei, Guan-Wei Chen, Tzu-Wei Huang, Cheng-Yang Tsai and Yu-Cheng Lin

@Room B

Session	January 19th, 2026 @Room B
Session1-4	10:30~12:00 Session Chair: Prof. Huang-Chia Shih
1065	VR Tennis Viewing Angle Selection System Huang-Chia Shih, Kuan-Yu Su and Ming-Hsun Liang
2580	An Energy-Aware Caching Algorithm for VVC Video Streaming in Content Delivery Networks Tz-Heng Hsu, Jian-Wei Li and Rui-Han Ju
3096	Monocular Fish Distance Measurement Method Integrating Deep Learning and Adaptive Correction Po-Yen Hsu, Mu-Yen Chen and Kuan-Ying Lee
3417	Human Activity Recognition Based on Wi-Fi CSI Using Bidirectional Temporal Convolutional Network (BiTCN) Thai Duy Quy, Shu-Yen Shih and Chih-Yang Lin
1168	

Session	January 19th, 2026 @Room B
Session1-5	13:30~15:00 Session Chair: Prof. Ranjit Singh Sarban Singh
1626	Enhancing Machine Learning-Based Intrusion Detection with Chebyshev-driven Feature Engineering Erdenebat Chuluun, Bayar-Erdene Lkhagvasuren, Dashdorj Yamkhin, Uyangaa Khuchit and Seonuck Paek
2311	LLMAntiPhish: A Hybrid Intelligence Framework for Real-Time Phishing URL Detection using Multi-Modal Deep Learning and Large Language Models Polakrit Krajaisri, Thanapat Wongthongtham, Kwankao Rattanahem and Kanoksak Wattanachote
3092	Effects of Integrating Generative and Rule-Based Chatbots with Immersive Virtual Reality on University Students' Attention and Learning Performance: A Case of Anti-Phishing Education Jerry Chih-Yuan Sun, Zi-Jie Zhuang, Wen-Li Chang and Li-An Li
3361	An Optimized SSD Framework for Tube Color Detection on Ultra-Low-Power Edge Devices Tsung-Han Tsai and Min-Sheng Chen
5174	Enhancing Security in Intelligent Hotel Ecosystems Using AI-Based Phishing Detection Mosiur Rahaman, Kartik Vanna, Akshat Gaurav, Kwok Tai Chui and Brij B. Gupta

Session	January 19th, 2026 @Room B
Session1-6	15:30~17:00 Session Chair: Prof. Pimpa Cheewaprapakobkit
2063	<p>A Greedy-based Approach for Simulating an Expert Packer's Container Loading Strategy</p> <p>Chen-Kun Tsung, Hsiu-Ming Li, Hsuan-Yu Huang, Ya-Ting Huang, Hsiao-Yu Wang and Ching-Hsien Hsu</p>
3963	<p>Predict influence of rare events in power of combined cycle power plant by Copula method</p> <p>Hsiao-Yu Wang and Chun-Shih Cheng</p>
6162	<p>A Multi-Stage Framework for Controllable Symbolic Music Generation via LLaMA Modeling</p> <p>Pimpa Cheewaprapakobkit, Timothy K. Shih, Chun-Cheng Chu, Yu-Cheng Lin</p>
8318	<p>Deep Learning-Enhanced Hand Gesture Recognition for Robust Mobile Robot Control</p> <p>Pimpa Cheewaprapakobkit, Quang-Thai Dao, Phuoc-Loi Tran, Anh-Trung Le Tran, Van-Ven Phan, Dinh-Tu Nguyen and Worapot Sommool</p>

@Room C

Session	January 19th, 2026 @Room C
Session1-7	10:30~12:00 Session Chair: Prof. Ying-Nong Chen
MLMA_1	Style-Expression Generation via VQ GAN Scheme Chin-Ting Lee, Ying-Nong Chen and Kun-Yu Lin
MLMA_3	Integrating Parametric Workflow with CFD Simulation: Development and Validation of Indoor–Outdoor Ventilation Evaluation Processes Li-Wei Tsai, Yen-Liang Lin and Min-Hsi Chao
MLMA_4	Analysis of Risk Perception Among Quanzhou Private Export Enterprises in Coping with Trade Uncertainty: A Q-Methodology Research Design Chi Shen Chang, Sheng Yuan Wang, Yan Zhang Chen, Wen Wen Wu and Xiao Yin Zhang
MLMA_5	Research on the Logic and Mechanism of Digital and Intelligent Transformation Empowering New Quality Productivity: A Case Study of East China's Coastal Yen-Chang Chen and Yun Qiao Zhuo
MLMA_6	The Influence of Financial Crises on Structural Breaks in the Financials Index Yen-Chang Chen, Chi-Shen Chang and Sheng-Yuan Wang

Session	January 19th, 2026 @Room C
Session1-8	13:30~15:00 Session Chair: Prof. Lawrence Y. Deng
MLMA_7	AI-Driven Research on the Current Situation Survey and Organizational Profiling of Disability Support Non-Governmental Organizations in Quanzhou Sheng-Yuan Wang, Chen-Yen Chang and Chi-Shen Chang
MLMA_8	AI-Based Repurchase Prediction in Retail Customer Behavior Analysis Yu-Yu Yen, Jui-Ying Chen, Li-Wei Tsai and Jui-Hung Kao
MIOT_2	Accelerating AI-Powered Research: The PuppyChatter Framework for Usable and Flexible Tooling Chun-Hsiung Tseng, Hao-Chiang Koong Lin, Andrew Chih-Wei Huang, Yung-Hui Chen and Jia-Rou Lin
MIOT_8	Attention Enhanced DUCK-Net for Lung Nodule Detection Lawrence Y. Deng, Xiang-Yann Lim, Tzu-Ching Lin, Heng-Hsiu Lin, Ming-Hsun Lee and Yu-Cheng Chang
MIOT_10	Design and Implementation of a Low-cost UHF RFID-based Tracking and Counting Assistance System for Medical Instruments Wen-Yi Chen, Guan-Yu Chen and Jiun-Yu Tu

Session	January 19th, 2025 @Room C
Session1-9	15:30~17:00 Session Chair: Prof. Jiun-Yu Tu
MIOT_3	A CycleGAN-Based Weather Translation Approach Enhanced by Attention Mechanisms: Image Quality Assessment from Rainy to Sunny Conditions Yung-Hui Chen, Chun-Hsiung Tseng, Jiun-Yu Tu, Peng-Wen Chen, Huang-Wen Huang, Tzu-Yu Wei and Jun-Ru Chen
MIOT_4	AI-Driven Intelligent Itinerary Generation: A Conceptual Framework Integrating Semantic Reasoning and Geospatial Intelligence Cheng-Yun Ho and Cheng-Yuan Ho
MIOT_5	Design and Implementation of a Blockchain-Based Decentralized Time Banking System Chin-Ling Chen, Yi-Jun Yu, Chun-Che Chang, Jian-Jie Gu, Jia-Kai Shi, Xin-An Chen and Ling-Chun Liu
MIOT_6	Anonymous Feature-Tracking Framework for Environmental Optimization in Hospital Spaces Peng-Wen Chen, Shui-Shu Hsiao, Yung-Hui Chen, Ya-Hsun Chang, Hsin-Yu Chang, Yu-Cen Lin and Wen-Qi Zhang
IAS_1	Automated Medical Report Generation via OCR and Generative AI Yu-Chih Wei, Wei Shan Lin, Chia-Yun Hsu, Yung-Hsiang Hsu and Yu-Zhe Wang

@Room A

Session	January 20th, 2026 @Room A
Session2-1	09:00~10:30 Session Chair: Prof. Somchoke Ruengittinun
4272	HML-PTA: A Hybrid Multi-Level Privacy-Preserving Task Assignment for Spatial Crowdsourcing Yu-Chia Lin and Yu-Ling Hsueh
7434	A Vision-Based Architecture for Continuous Path Decision-Making with DDPG Cheng-Hui Chen, Qun-Wei Huang, Wei-Quan Wang and Hao-De Jhan
7981	UAV Path Planning for Building Structure Inspection Wen-Chi Tsai, Yi-Peng Liu, Yu Wu, Yun-Sheng Chen, Chung-Lun Lai, Yu-Yu Chang and Min-Te Sun
MLMA_9	A computer vision approach for verifying the count of surgical material and instruments to prevent retention of surgical items Nutpawee Kawee, Karnnitra Sukpanich, Amphawan Srikrutranan, Tanaboon Tongbuasirilai and Somchoke Rueng-Ittinun
MIOT_7	IoT Learning Device Recognition for Education Lab Management Using YOLO Thaphon Chinnakornsakul, Somchoke Ruengittinun and Soontharee Koompairojn

Session	January 20th, 2026 @Room A
Session2-2	10:30~12:00 Session Chair: Prof. Shih-Yu Chen
3942	An AI-Based System for Automatic Detection and Classification of Wood-Boring Insect Sounds in Cultural Heritage Chuan-Yu Chang, Po-Yu Su, Fan-Nong Yu and Tzu-Hao Liu
4186	AI-Powered Video Editing: Integrating Speech Recognition and Generative AI for Deep Content Analysis Chuan-Yu Chang, Yu-Hsin Cheng, Jia-Yee Chia and Min-Hao Wang
AAOI_1	Nutrient Classification of Meals Based on Dual-Branch Attention Learning Chao-Yang Lee
AAOI_2	Smart Greenhouse Monitoring System for Agricultural IoT: Integrating Environmental Sensing and Data Analytic Shu-Wei He and Shih-Yu Chen
AAOI_3	SmartWaste-YOLO: An Enhanced YOLO-Based Model for Intelligent Trash Classification and Recycling Chuan-Yu Chang, Sheng-Gui Su, Abida Khanum, Po-Yu Su and Yu-Hsin Cheng

Session	January 20th, 2026 @Room A
Session2-3	13:30~15:00 Session Chair: Prof. Chalothon Chootong
1986	Filtering Method Against Malicious Clients by Edge-based Accuracy Validation in Hierarchical Federated Learning Geonho Kim, Hyunsu Jeong and Joon-Min Gil
6439	Bilateral Lesion-Guided Transformers with Patient-Level Graph Reasoning for Multi-Label Retinal Disease Diagnosis Soo Kyun Kim, Inchul Han and Muhammad Ali Iqbal
5690	Handling Missing Modalities in Multimodal Federated Learning for Healthcare Data Analytics Vichayuth Ngamsittipong, Thannatorn Thongsuk, Jakkaphat Jumratboonsom, Watthanapornchai Jatuviriyapornchai, Yipeng Zhou and Petch Sajjacholapunt
9136	An Improved Camera-Based People Counting System with Identity Tracking and Multi-State Line-Crossing Logic Isack Farady, Chatchai Kasemtaweechok, Chalothon Chootong, Piyaphum Muethkambong, Boonphithak Phompech and Arnon Phongrusamepane
9927	Fine-Tuning a Multilingual Transformer Model for Thai Medical Named Entity Recognition on Medicine Labels Nonpawit Silabumrunggrad, Natchanan Lordee, Jirawan Charoensuk and Chalothon Chootong
5501	

Session	January 20th, 2026 @Room A
Session2-4	15:30~17:00 Session Chair: Prof. Po-Lei Lee
4724	A Cross-Attention Enhanced Approach for Hybrid Text Summarization. Yi-Cheng Chen, Lin Hui, Sheng-Chih Chen, Chuan-Wang Chang and Jun-Zhe Liu
IAS_3	Development of a Graph Attention Network Model for EEG-Based Cognitive Assessment in Dementia Yu-Ching Tai, Si-Zhen Chen and Po-Lei Lee
IAS_4	Remote Ultrasonic Scanning System via Multi-View 3D Modeling and Dual-Force Sensor Based Fuzzy Neural Network Control Wun-Hao Sie, Dong-Lin You and Po-Lei Lee
IAS_5	Cross-Subject LSTM Model Using sEMG Signals for Assistive Force Estimation in Pneumatic Exoskeletons Song Yu Wu, Che-Ming Hu and Po-Lei Lee
IAS_6	Combining A Global Path Planning and DQN-based Local Obstacle Avoidance for Biped Robot Navigation Hao-Yan Hu and Po-Lei Lee

@Room B

Session	January 20th, 2026 @Room B
Session2-5	09:00~10:30 Session Chair: Prof. Min-Te Sun
8152	Semantic Segmentation for Shuttlecock Trajectory Understanding Ciao-Lin Cheng, Jiun-Jer Chen, Tsì-Uí Ik, Jen-Hao Hsu, Jiun-Long Huang and Lo-Yao Yeh
SDA_2	HT-ConvFormer: A Hierarchical Framework for Multi-Scale Temporal Modeling in Table Tennis Analytics Yu-Min Zhang, Jui-Han Lin, Pei-Jan Peng, Wen Yen Chang, Chun-Chieh Lee and Kuo-Chin Fan
SDA_3	Development of a New Force Platform for Athletic Performance Assessment Using Load Cells Mehmet Yıldız, Uğur Fidan, Zeki Akyıldız and İrem Güdücü
SDA_4	Predicting strike types in Table Tennis Using Sequence to Sequence Models Hsuan-Cheng Chu, Chao-Wei Cai, Po-Cheng Cheng and Hung-Hsuan Chen

Session	January 20th, 2026 @Room B
Session2-6	10:30~12:00 Session Chair: Prof. Kun-Yu Lin
IC-02	AI/AR Smart Glasses in Nursing: Frontiers, Risks, and Governance Chao-Ting Chu, Hsiung-Mao Lin, Yueh-Tao Chiang and Wen-Yen Lin
IC-09	An MLOps Framework for Real-Time BI-RADS Classification Wan Mohd Amir Fazamin Wan Hamzah, Nur Farah Afifah Ahmad Sukri, Mohd Kamir Yusof, Mumtazimah Mohamad, Ismahafezi Ismail and Harym Mohamed Yusoff
IC-11	Human Anomalous Activity Detection System Based on Infrared Grid Sensor Ololade Babatunde and Raqibul Hasan
IC-15	Why Users Complain: Service Quality Gaps in Nepal's Leading E-Wallets Kapil Gurung
IC-16	Reinforcement-Guided Swarm Drones: Effects of PSO and Pheromones on Collective Behaviour Neha Gupta, Vivek Tatarwal and Amit Mathur

Session	January 20th, 2026 @Room B
Session2-7	13:30~15:00 Session Chair: Prof. Lin Hui
IC-12 (Veido)	Nomophobia in University Students: A Machine Learning and Data Analysis Approach to Smartphone-Related Anxiety Carlos Alberto Espinosa-Pinos, Paola Silvana Valencia-Medina and Camila Alessandra Valarezo-Calero
IC-13 (Veido)	Automatic Assessment of Cognitive, Social, and Emotional Skills in University Students Using Machine Learning Models Carlos Alberto Espinosa-Pinos, Jorge Luis Cisneros-Bedón, Noemí Viviana Rodríguez-Ortiz, Daniela Jaramillo and Alejandro Llerena
IC-14 (Veido)	Indigenous Knowledge Management System Cycle in Papua Melkior N. N. Sitokdana, Apol Pribadi and Reny Nadlifatin

Session	January 20th, 2026 @Room B
Backup	16:00~17:00 Session Chair: Prof. Lin Hui
16:00~17:00	Closing Conference and Best Paper Award (Room #B) Session Chair: Prof. Po-Lei Lee