

**2025****The 21st International Conference on Intelligent Information Hiding and Multimedia Signal Processing**

October 15-17, 2025, The Splendor Hotel, Taichung, Taiwan



# Conference Program

Day One (Wednesday, October 15, 2025)	
Time	Event
08:45 – 16:00	<b>Registration</b> Hall, 13F (The Splendor Hotel - 金典酒店, Taichung, Taiwan )
09:00 – 09:10	<b>Welcome Session</b>
09:10 – 10:10	<b>Panel Discussion</b> (Chairperson: Prof. Cheng-Hsiung Hsieh) <b>Theme: AI Applications in Engineering and Higher Education Management</b> Dr. Prof. Tao-Ming Cheng (Chaoyang U. of Technology, Taiwan); Dr. Prof. Tsukahara Tsuneo (U. of Aizu, Japan); Dr. Prof. Goutam Chakraborty (Iwate Prefectural U., Japan); Dr. Prof. James Tze-Jie Yu (DePaul University, USA) The Conference Ballroom, 13F
10:10 – 10:40	Tea/Coffee Break
10:40 – 11:40	<b>Keynote Speech I: Applications and Challenges of Artificial Intelligence in Cybersecurity with focus on Information Hiding</b> Dr. Prof. James Tze-Jie Yu (DePaul University, USA) Speaker Introducer: Prof. Yu-Huei Cheng The Conference Ballroom, 13F
10:40 – 12:20	Regular Session_1 Room A, 14F
	<b>Special Session-06_1</b> Room B, 14F
12:20 – 13:20	Lunch
13:20 – 15:00	<b>Special Session-05_1</b> Room A, 14F
	<b>Special Session-06_2</b> Room B, 14F
	<b>Postor-01 (NSTC Poster): 13:40-14:30 (First Session); 15:10-16:00 (Second Session)</b> The Conference Ballroom, 13F
13:20 – 14:20	<b>NSTC-ETPC Speech:</b> Prof. Chin-Feng Lee The Conference Ballroom, 13F



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15:00 – 15:20	Tea/Coffee Break
15:20 – 17:00	<b>Special Session-04</b> Room A, 14F
	<b>Special Session-02 / Special Session-03</b> Room B, 14F
<b>Day Two</b> (Thursday, October 16, 2025)	
<b>Time</b>	<b>Event</b>
08:45 – 16:00	Registration Hall, 13F
09:10 – 10:10	<b>Keynote Speech II: Deep Learning-based Animal Behavior Analysis</b> Distinguished Research Fellow H. Y. Mark Liao (Academia Sinica, Taiwan) Speaker Introducer: Prof. Shih-Hung Wu The Conference Ballroom, 13F
10:10 – 10:40	Tea/Coffee Break
10:40 – 12:20	<b>Special Session-07_1</b> Room A, 14F
	<b>Special Session-08 / Special Session-09</b> Room B, 14F
	<b>Special Session-05_2</b> Room C, 14F
12:20 – 13:20	Lunch
13:20 – 15:00	<b>Special Session-07_2</b> Room A, 14F
	Regular Session_2 Room B, 14F
	Regular Session_3 Room C, 14F
15:00 – 15:20	Tea/Coffee Break
15:20 – 17:00	<b>Special Session-10_1</b> Room A, 14F
	<b>Special Session-10_2 / Special Session-11</b> Room B, 14F
	<b>Special Session-01 / Regular Session-4</b> Room C, 14F
18:00 – 20:00	<b>Banquet</b> (Entry time: 17:40-18:00) The Conference Ballroom (II+IV), 13F



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Day Three (Friday, October 17, 2025)	
Time	Event ( <b>Online</b> meeting –Google and VooV meeting rooms)
09:00 – 11:00	Registration Online
09:00 – 11:00	IIHMSP 2025 Online Section A (Google Meeting: <a href="https://meet.google.com/dtt-ezmg-igm">https://meet.google.com/dtt-ezmg-igm</a> )
	IIHMSP 2025 Online Section B (VooV Meeting: <a href="https://voovmeeting.com/dm/BjThYORteGmw">https://voovmeeting.com/dm/BjThYORteGmw</a> )
	IIHMSP 2025 Online Section C (VooV Meeting: <a href="https://voovmeeting.com/dm/NtCnd2W">https://voovmeeting.com/dm/NtCnd2W</a> )
11:00 –	The End of the Conference



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**Day One** (Wednesday, October 15, 2025) (10:40 – 12:20)

### Room A: Regular Session\_1

(Session Chair: Prof. Long-Sheng Chen)

Paper ID	Title	Authors	Referred Page
21	Using Grey Polynomial Interpolation in H.265 Under Limited Bandwidth Conditions	Cheng-Hsiung Hsieh; Wei-Cheng Liao; Xin-Rui Lin	p. 1
28	Developing a Table Tennis Skills and Tactics App Using a Multi-Criteria Decision-Making Model	Hsiu-Yuan Yeh; Jia-Pei Lin; Hsin-Lun Hsu; Chi-Yueh Hsu	p. 2
30	A Study on Building a Company-Level Carbon Emission Prediction Model for the Semiconductor Industry	Long-Sheng Chen; Lu-Hsien Hsieh; Yong-Yu Chang; Jing-Rong Chang	p. 3
37	Improving Minority Class Detection in Online Game Review Sentiment Analysis	Long-Sheng Chen; Hsuan-Jung Huang; Thao-Trang Huynh-Cam	p. 4

### Room B: Special Session-06\_1 (SS-06:Generative AI, Multimedia, and Image Processing)

(Session Chair: Prof. Hung-Cheng Chen)

Paper ID	Title	Authors	Referred Page
43	A Study on Manual Retopology Methods for Enhancing Efficiency and Structural Rationality of 3D Models	Chia-Jen Chang; Cheng-Hao Shao	p. 5
49	Software-Integrated Pipeline for AI-Assisted 3D Head Modeling: A Practical Approach for Virtual Character Design	Chia-Jen Chang; Hsin-Yu Lee; Tzu-Chuen Lu	p. 6
62	Designing the Timeless: Visual Symbolism and Cultural Strategies in Akira Toriyama's Dragon Ball	Jui-Lin Yen; Chia-Jen Chang; Tzu-Chuen Lu	p. 7
78	Digital Wind Sculpture through Cascading Poetic Translation: Cross-media Aesthetic Generation in Multi-Generative AI Collaborative Networks	Hung-Cheng Chen; Ting-Yun Lo	p. 8
99	Revitalizing Cultural Heritage with AI Vibe Coding: The Development of the "Nine-Nine Dispelling Cold Chart" Interactive Webpage	Yu-Hui Lin; Hung-Cheng Chen	p. 9



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**Day One** (Wednesday, October 15, 2025) (13:20 – 15:00)

**Room A: Special Session-05\_1** (SS-05:AIoT in Biomedicine)

(Session Chair: Prof. Xin Zhu)

Paper ID	Title	Authors	Referred Page
60	Estimating RR Interval of Electrocardiogram from PP Interval of Photoplethysmogram with Autoregressive Moving Average Model for Heart Rate Variability Analysis	Shing-Hong Liu; Yu-Jie Houn; Jia-Jung Wang	p. 10
79	Reduction of Motion Artifacts in the Unilateral Electrocardiogram by Means of Wiener Filters	Jia-Jung Wang; Ioannis Manousakas; Kuen-Cheng Ju; Wei-Yu Tu; Yi-Hsuan Su	p. 11
86	Transfer Learning for Lung Segmentation from Chest X-ray Images: A Comparative Study	Xingjian Tian; Boyuan Peng; Yoshinao Sugai; Xin Zhu	p. 12
105	An Interpretable Real-Time Multimodal AI System for Injury Severity Assessment in Prehospital Settings	Chiun-Li Chin; Hong-Ru Chen; Jin-You Hong; Cheng-En Li; Wei-Chieh Yu; Yu-Li Chou; Jhih-Cian Lin; Rong-Sheng Chen	p. 13
106	EZRead: A Generative AI Approach for Improving Text Readability for Hearing-Impaired Users	Chiun-Li Chin; Jun-ren Chen; Rong-Sheng Chen; Jin-You Hong; Cheng-En Li; Fu-Cheng Tsai; Yi-Wei Chen; Tzu-Hung Yang; Hong-Ru Chen	p. 14

**Room B: Special Session-06\_02** (SS-06:Generative AI, Multimedia, and Image Processing)

(Session Chair: Prof. Li-Hua Li)

Paper ID	Title	Authors	Referred Page
54	From Curiosity to Concern: Uncovering Insights on Generative AI via Sentiment Analysis	Li-Hua Li; Agus Cahyo Nugroho	p. 15
81	The Impact of Immersive Virtual Reality Combined with an Educational Metaverse Platform on Elementary Students' Engagement in Mathematics	Cheng-Hung Wang; Nien-En Wu; Po-Han Wu; Yi-Chen Li; Li-Wen Lu	p. 16
91	Reversible Data Hiding in the Deep Learning Era: A Review of Techniques and Future Prospects	Anis Ur Rehman; Chin-Feng Lee	p. 17
100	Unlocking Campus Energy Futures: A Comparative Forecasting Using Multivariate LSTM and Univariate SARIMA	Candrarini Trista H.D.; Gracia Adonay E.; Richard G. Mayopu; Radius Tanone	p. 18
166	The Study of a Lightweight Defect Detection Model for The Surface Condition of Solar Panels	Chien-Cheng Pan; Li-Hua Li	p. 19
167	Transfer Learning Based Microbial Colony Classification on the AGAR Dataset under Four Imaging Conditions	Yen-Ting Lin; Li-Hua Li	p. 20



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**Day One** (Wednesday, October 15, 2025) (15:20 – 17:00)

**Room A: Special Session-04** (SS-04:AI-Enhanced QoL: Economics, Affective Computing and Modern

Technology)

(Session Chairs: Prof. Naruki Shirahama and Prof. Satoshi Watanabe)

Paper ID	Title	Authors	Referred Page
40	How Users Express Emotions and Purchase Intentions on RED	Lu Jiang; Kodono Yukio	p. 21
41	Text Mining of Negative User Reviews on OfferUp A Sentiment and Topic Modeling Approach	Xiuyi Yue; Yukio Kodono	p. 22
47	Linguistic Characteristics of High- and Low-Liked OOTD (Outfit of the Day) Posts: A Comparative Analysis on Social Media	Yi Lu; Yukio Kodono	p. 23
55	Distribution of Information Skills for Two Groups of Students Based on the Visualization Analysis for Visual Analog Scale Measurements	Satoshi Watanabe; Naofumi Nakaya; Naruki Shirahama	p. 24
59	Characterizing “Emotional Individuality” in 36 LLMs: Persona and Japanese Text Conditioning	Naruki Shirahama; Naofumi Nakaya; Satoshi Watanabe	p. 25
82	COVID-19 Diagnosis Using CT Image Recognition Based on Transfer Learning	Chun-Cheng Peng; Cheng-Yeh Wen; Tsung-Tse Chang; Yu-Chen Liao	p. 26
130	Analysis of Japanese Industry Using the Cobb-Douglas Production Function	Yoshiyuki Yabuuchi	p. 27

**Room B: Special Session-02** (SS-02:Generative AI or Artificial Intelligence and Applications) &

**Special Session-03** (SS-03:Metaheuristic Algorithms and Applications)

(Session Chair: Prof. Jia-Lang Xu)

Paper ID	Title	Authors	Referred Page
31	A CNN-based Residual Control Chart for Interval Censored Data	Pei-Hsi Lee	p. 28
32	Applying Information Technology Technique to Optimize Real-Time Feedback Systems for Essay Grading	Chiou-Yu Chen; Shieh-Shing Lin	p. 29
34	The Study on Optimizing the Refrigeration and Air Conditioning Installation Level B Certification Process Using Expert System	Ya-Chun Han; Shieh-Shing Lin	p. 30
73	A Study on Automatic Tooth Segmentation in Panoramic Dental Radiographs Using U-Net	Han-Jie Shih; Li-Rong Yang; Geng-Wei Li; Jia-Lang Xu	p. 31
117	Web Application for Supply Chain Management as a Bicycle Material Manufacture Company	Adi Putera Zhou; Chin-Ling Chen; Jia-Lang Xu	p. 32
135	Research and Implementation of Brain Tumor Diagnosis on Deep Learning	Chun-Cheng Peng; Li-Wei Liao; Jia-Xing Wu; Tsung-Tse Chang; Yu-Chen Liao	p. 33
64	Design and Implementation of Gesture Recognition Based on YOLO Neural Network	Jason Chen; M. Abdul; Chingmai Ko	p. 34
126	Dual-guiding Adaptive Multi-strategy Animated Oat Optimization Algorithm (DAOA)	Jeng-Shyang Pan; Peng-Yu Duan; Shu-Chuan Chu; Qing-Wei Chai; Yan Bin	p. 35
127	Multi-Strategy based Artificial Protozoa Optimizer	Jeng-Shyang Pan; He Wei; Ru-Hai You; Xiao-Min Liu; Min Liu	p. 36

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**Day Two** (Thursday, October 16, 2025) (10:40 – 12:20)**Room A: Special Session-07\_1** (SS-07:Pattern Recognition and Feature Learning in Complex Visual Data)

(Session Chair: Prof. Yung-Chen Chou)

Paper ID	Title	Authors	Referred Page
33	Reconstruction Segmenting Region Technique for Adversarial Patch Defense	Elvin Nur Furqon; Isack Farady; Junaidul Islam; Chih-Yang Lin	p. 37
36	Real-Time Detection of Lane-Change Violations in Vehicles via YOLOv8	Shao-Kuo Tai; Pin-You Chen; Wei-Ru Lin	p. 38
52	Image-Based Porosity Analysis of Acoustic Mesh Structures Using Advanced Digital Image Processing Techniques	Xiang-Shun Yang; Rou-Syuan Jiang; Wei-Wei Huang; Chu-Ya Chuang; Xuan-Yi Huang; Yu-Cheng Liu; Yung-Chen Chou	p. 39
107	A Data-Driven Approach to Total Organic Carbon Prediction in Mangrove Sediments Using FTIR and 1D-CNN	Yung-Chen Chou; Po-Sung Chen; Cheng-Hsien Lin; Ning-Hsiang Hsu; Kuo-Yen Wei; Li Lo	p. 40
110	U-Net Based Semantic Segmentation for Pore Detection in Nonwoven Mesh Structures Applied to Electroacoustic Device Design	Ching-Yi Pang; Po-Sung Chen; Xiao-Zhu Wang; Xuan-Yi Huang; Chu-Ya Chuang; Yu-Cheng Liu; Yung-Chen Chou	p. 41

**Room B: Special Session-08** (SS-08:Using Multimodal AI for Various Data Sources in Smart Applications)

&amp; Special Session-09 (SS-09:Wireless Network and Intelligence Computing)

(Session Chair: Prof. Chao-Yang Lee)

Paper ID	Title	Authors	Referred Page
104	Finetuning BERT & RoBERTa for Office Documents Classification System	Su-Wen Huang; Ping-Han Chang; Lai-Shiun Lai; Rung-Ching Chen	p. 42
120	Smart Detection of Open Parking Spaces in Urban Taiwan Using YOLOv8 Segmentation on Dashcam Footage	Muhammad Ehsan; Rung-Ching Chen	p. 43
125	Deepfake Detection Based on Multimodal Feature Fusion	Tzung-Pei Hong; Haohsuan Chien; Ja-Hwung Su; Wei-Chou Chen; Shu-Min Li	p. 44
61	Intrusion Detection System Based on Horizontal Federated Learning for Non-Terrestrial Networks	Chao-Yang Lee; Ching-Wei Lin; Chun-Hung Lin	p. 45
92	An AI-Based Two-Stage Ensemble Framework for Efficient IoT Traffic Anomaly Detection	Chung-Wei Kuo; Cheng-Xuan Wu	p. 46
96	MARL-based AoI and Energy Optimization in Multi-RSU C-V2X Networks	Yong-Sheng Lin; Chuan-Chi Lai	p. 47
103	5G UAV Real-Time AQI Smart Monitoring Platform	Feng-Cheng Tsai; Chen-Hao Li; Ang-Hsun Tsai; Chao-Yang Lee	p. 48

**Room C: Special Session-05\_2** (SS-05:AIoT in Biomedicine)

(Session Chair: Prof. I-Fang Chung)

Paper ID	Title	Authors	Referred Page
65	Design of High Frequency Wireless and Wearable Functional Near-Infrared Spectroscopy Module	Yen-Po Huang; Chien-An Chen; Jia-Jin Chen	p. 49
70	Predicting Prolonged Opioid Use After Total Joint Arthroplasty Using Machine Learning: An Electronic Medical Record-Based Study	Meng-Shui Lu; I-Fang Chung	p. 50
74	Development of a Plantar Pressure Wearable with Machine Learning for Muscle Fatigue Detection	Andrew Jonathan Hadikusuma; Xiao-Fan Lin; Fu-Yu Beverly Chen	p. 51
75	Aligning Cell-Line and Patient Data with Interpretable Transformers for Drug Prediction	Chi-Tang Wang; Yu-Kai Chiu; I-Fang Chung	p. 52
76	Semi-supervised Learning for Renal Pathology Image Segmentation	Chieh-Yu Li; I-Fang Chung	p. 53





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**Room A: Special Session-07\_2** (SS-07:Pattern Recognition and Feature Learning in Complex Visual Data)

(Session Chair: Prof. Jia-Lang Xu)

Paper ID	Title	Authors	Referred Page
39	Evaluation of the Effectiveness of AI-Based Motion Interaction Games in Marine Culture Education	Wen-Chuan Wu; Yu-Wei Zhang; Yi-Chen Lin	p. 54
46	A Modular Retrieval-Augmented Generation Framework for Factual Question Answering Domain-Specific Time-Series Data	Ankh-Erdene Ganbat; Tzu-Chuen Lu; Ming-Hsuan Wu	p. 55
57	Automated Semantic Segmentation and Quantitative Analysis of Pore Structures in PEO Coatings Using a Modified U-Net Framework	Ning-Hsiang Hsu; Po-Sung Chen; Xiang-Shun Yang; Chen-Jui Liang	p. 56
67	Medical Image Authentication for Telemedicine Applications using Grouping and Self-reference Strategies	Chia-Chen Lin; Er Tai Zhuo; En-Ting Chur	p. 57
108	A Physician-Assisted Interpretation System for Automatic Classification of Delayed Intracranial Hemorrhage Using Fuzzy AlexNet	Ming-Chi Wu; Chiun-Li Chin; Cheng-En Li; Rong-Sheng Chen; Hong-Ru Chen; Jin-You Hong	p. 58
113	Intelligent Fabric Defect Detection Research Based on the YOLOv8 Model	Chun-Hsiu Yeh; Xuan Wang; Xian-Zhong Lin; Yi-Teng Lin; Chin-Wei Liao; Wei-Cheng Shen; Jong-Shin Chen	p. 59

**Room B: Regular Session\_2**

(Session Chair: Prof. Zi Yi Lim)

Paper ID	Title	Authors	Referred Page
38	Development of a Neural Network-Based Model for Predicting the Steady-State Characteristics of a Pd HfO <sub>2</sub> /GaOx/GaN Hydrogen Gas Sensor	Kun-Wei Lin; Hsuan-Jung Shih; Jia-Wei Li	p. 60
44	Analyzing a Serious Game for Livestock Wastewater Treatment Using the Technology Acceptance Model (TAM)	Tzu-Chuen Lu; Ci-Jia Huang	p. 61
71	Applying Curved Price Channels to Improve Automated Detection of Consolidation Phases	Shih-Yun Yen; Hung-Yu Chien	p. 62
84	Monkeypox Identification Based on Transfer Learning	Chun-Cheng Peng; Yue-Han Chen; Xiang-Wei Hu; Mau-Shiun Tang; Jia-Xing Wu; Tsung-Tse Chang	p. 63
85	Deep Learning-Based Diabetic Retinopathy Detection	Chun-Cheng Peng; Cheng-Hui Teng; Hsun-Ming Chung; Yi-Pin Liu; Tang-Jung Ke; Li-Wei Liao	p. 64

**Room C: Regular Session\_3**

(Session Chair: Prof. Chun-Cheng Peng)

Paper ID	Title	Authors	Referred Page
88	Optimized Deep Learning Model for Prostate Cancer Detection	Chun-Cheng Peng; Yu-Chen Liao; Xiang-Wei Hu; Yuen-Han Chen; Hsun-Ming Chung; Yi-Pin Liu	p. 65
98	AI-Powered Product Code Generation and ERP Integration Platform for Industry-wide Application	Shih-Lung Liao; Yu-Ting Kuo; Shao-Kuo Tai; Pei-Hsi Lee	p. 66
102	Monocular 3D Volleyball Trajectory via Geometric Constraints	Tzu-Yun Hu; Jenn-Jier James Lien	p. 67
109	Interactive Intent Clarification Framework for Data Analysis Using Generative AI	Riku Takano; Rentaro Yoshioka; Takayuki Hoshino; Yukihide Kohira	p. 68
114	Development of Human Detection System Using Thermography with Convolutional Neural Network in Smart Museum	Kazuki Maetsubo; Shingo Tetsuka; Takaharu Kasayuki; Yukihide Kohira; Rentaro Yoshioka	p. 69



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**Day Two** (Thursday, October 16, 2025) (15:20 – 17:00)**Room A: Special Session-10\_1** (SS-10:AIoT Convergence: Intelligent Integration of Artificial Intelligence and Internet of Things for Smart Environments)  
(Session Chair: Prof. Yu-Huei Cheng)

Paper ID	Title	Authors	Referred Page
97	Design and Implementation of an Energy-Efficient IoT-Based Health Monitoring System with Cloud Integration	Ming-Cheng Kao; Jun-Rong Ye; Tzu-Hao Chang; Chen-Chien Shieh	p. 70
121	Comparative Analysis of Techniques and Tools for Image Steganography and Steganalysis	Elbert Timothy Thomas; MengLun Hsueh	p. 71
129	TOGAF as a Unifying Framework for Agricultural Digitalization	Kalaiarasi Sonai Muthu Anbananthen; Saravanan Muthaiyah; Baarathi Balasubramaniam; Jayakumar Krishnan; Thein Oak Kyaw Zaw; Suraya Mohammad; Yunus Yusoff; Khairul Shafee Kalid	p. 72
131	Construction and Analysis of a Student Dropout Prediction Model Using AutoGluon with Imbalanced Data Handling Techniques	Yu-Huei Cheng; Che-En Lin	p. 73

**Room B: Special Session-10\_2** (SS-10:AIoT Convergence: Intelligent Integration of Artificial Intelligence and Internet of Things for Smart Environments) &  
Special Session-11 (SS-11:Applications of Intelligent Internet of Things And Communications)  
(Session Chair: Prof. Zi Yi Lim)

Paper ID	Title	Authors	Referred Page
51	Easy Upgrade to Smart Elevator with An AIoT Device	Zi Yi Lim; Shih-Wei Ciou; Chang-Hong Lai; Yu-Zhang Luo; Chien-Chia Huang	p.74
77	EMG-Based Gesture Recognition Using Deep Learning for Autonomous Vehicle Control	Yu-Yong Luo; Yan-Ru Lin; Chia-Hsin Cheng; Yung-Fa Huang	p. 75
89	A Self-Timed Bi-Directional Torus Network	Chia-Cheng Tsai; Wei-Min Cheng; Yuan-Teng Chang; Yung-Fa Huang; Hung-Yue Tsai; Chang-Jiu Chen; Yu-Hsang Wu	p. 76
90	Efficient KNN Classification for High-Density Geospatial Data Using Grid-Based Partitioning	Cheng-Ying Yang; Ruo-Wei Hung; Chun-Ming Kuo; Jong-Shin Chen	p. 77
95	A Highly Convenient Smart Parking Information System Utilizes the ALPR Method Based on IoT Technology	Yung-Ping Tu; Kai-Hung Hsieh; Shao-Chi Hsu; Yung-Fa Huang; Feng-Li Lin	p. 78
116	A Monocular Defocus Depth Estimation Algorithm Combining AI-Based Image Segmentation and Physical Optics	Ing-Chau Chang; Yu-Cheng Chen; Yu-Sen Wang; Chunhui Kuo; Chin-En Yen	p. 79

**Room C: Regular Session\_4 & Special Session-01** (SS-01:Graph Algorithms and Applications)  
(Session Chair: Prof. Ruo-Wei Hung)

Paper ID	Title	Authors	Referred Page
119	A Natural Language-driven Humanoid Robot Motion Encoding Method Based on LLaMA-3-8B	Zhi-Zhong Chen; Shih-Hung Wu	p. 80
123	Adaptive Contention Preamble with Differentiating Contention Domains for Minimizing Collisions and Delay in 5G-Advanced Cellular Networking	Ben-Jye Chang; Ying-Hsin Liang; Ruo-Wei Hung; De-Yu Wang	p. 81
124	Purifying Adversarial Faces: A Cold Diffusion Framework for Black-Box Defense	Pei-Hsin Hsieh; Pei-Chi Bao; Alex Carlos Ack; Le Nguyen Hoang My Dinh; Wen-Chieh Fang	p. 82
22	The 2-Fair Domination in Planar and Extended Supergrid Graphs	Ruo-Wei Hung; Jong-Shin Chen; An-Yu Hsiao	p. 83
48	Application of Heatmap Analysis Using Convolutional Neural Networks for Low-Concentration Ammonia Gas Sensing	Kun-Wei Lin; Yuan-Yi Hung; Zheng-Han Jiang; Meng-Huan Hsieh; Cheng-Hsiung Hsieh	p. 84

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**Day Three** (Friday, October 17, 2025) (09:00 – 11:00)**IIHMSP 2025 Online Section A:****Time: 9:00 – 11:00 AM (Taipei Time, UTC+8)****Room: Google Meeting ID: <https://meet.google.com/dtt-ezmg-igm>**

(Session Chair: Prof. Yoshiyuki Matsumoto)

Paper ID	Title	Authors	Referred Page
45	Topic Model Analysis of Inbound Demand Collected from Social Media	Yoshiyuki Matsumoto	p. 85
56	Threat Detection Using Multimodal Fusion and Timestamp Alignment	Zong-Bin Hsiao; Peter Shaojui Wang	p. 86
115	Diversity, Cognition, and Collaboration in BEV R&D Teams: A Survival Analysis of Patent Citation Lag	Iori Nakaoka; Yousin Park; Yunju Chen	p. 87
118	Modern Deep Learning Approaches for Omics-to-Image Survival Prediction: An Improved SurvCNN Framework	Huyen Ngoc Nguyen; Hanh Nguyen Van	p. 88
101	An Integrated M-N-S-QUAL Model for Predicting Customer Loyalty in Mobile Telecom: A Construal and Involvement Perspective	Yi-Wen Liao; Siang-Jyu Yuan; Chuan-Sheng Lin	p. 89
112	Design Thinking–Driven Development of “ImWatchingYou”: An OMO Smart Learning Environment Platform Integrating AI-Based Visual and Emotion Recognition for Real-Time Teaching Interaction	Yi-Wen Liao; Hung Jui Su; Chuan-Sheng Lin	p. 90

**IIHMSP 2025 Online Section B:****Time: 9:00 – 10:00 AM (Taipei Time, UTC+8)****Room: VooV Meeting ID: <https://voovmeeting.com/dm/BjThYORteGmw>**

(Session Chair: Prof. Shu-Chuan Chu)

Paper ID	Title	Authors	Referred Page
29	Task-Driven In-Field Hardware-in-the-Loop Accelerated Testing and Evaluation Method	Chenxuan Li; Yuanyuan Sheng; Jiashu Yang; Huanyu Liu; Junbao Li	p. 91
68	A Parallel Football Team Training Algorithm with Multiple Communication Strategies	Shu-Chuan Chu; Libin Fu; Jeng-Shyang Pan	p. 92
69	RLMALO: Reinforcement Learning-Enhanced Martial Art Learning Optimization for Night Image Enhancement	Jeng-Shyang Pan; Zi-Zheng Zhang; Shu-Chuan Chu; Ying-Ying Wang; Kevin Huang	p. 93

**IIHMSP 2025 Online Section C:****Time: 10:00 – 11:00 AM (Taipei Time, UTC+8)****Room: VooV Meeting ID: <https://voovmeeting.com/dm/NtCnd2W>**

(Session Chair: Prof. Shu-Chuan Chu)

Paper ID	Title	Authors	Referred Page
72	Chaotic-Elite Enhanced Animated Oat Optimization algorithm	Jeng-Shyang Pan; Li-Yuan Zhang; Shu-Chuan Chu; Qing-Wei Liang; Qing-Wei Chai	p. 94
94	FinTechX: A Comprehensive AI-Powered Financial System	Tianlin Fu; Fuquan Zhang; Lei Liu; Xianfang Luo	p. 95
128	A Robust Federated Learning Approach for Noisy Labels based on Sharpening and Self-distillation	Zhengnan Xie; Jiahui Chen; Chunshen Ye	p. 96

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