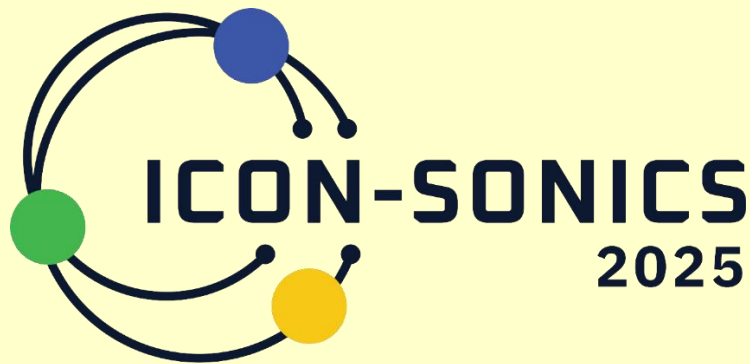


TECHNICAL PROGRAM & PARALLEL SESSIONS



**CIC 2025 JOINT
CONFERENCE**

**OCT 14-17
2025**

AT MULTIMEDIA UNIVERSITY
Malacca, Malaysia



**2025 4th International Conference on
Smart Cities, Automation, & Intelligent Computing
Systems (ICON-SONICS 2025)
14 – 17 October 2025, in Malacca, Malaysia**

Tuesday, 14th October 2025

Time	Agenda	Room
08.00 – 09.00	Registration	Pre Function
09.00 – 09.07	Opening Ceremony	Main Hall
09.07 – 09.45	1. Welcome Speech: - Assoc. Prof. Arya Wicaksana, S.Kom., M.Eng.Sc. (General Chair of CIC 2025) - Assoc. Prof. Dr. Leow Chee Yen (Bruce) CEng, MIET, MIEEE (Chairman of IEEE Malaysia Chapter ComSoc/VT) - Assoc. Prof. Ir. Dr. Goh Kam Meng, Ph.D (Chairman of IEEE Malaysia Chapter CIS) 2. Reciting a Poem 3. Gimmick & Photo Session	Main Hall
09.45 – 10.00	Coffee break	Pre Function
10.00 – 12.00	Keynote Session	Main Hall
	Session Chair: Maria Advenita Gita Elmada, S.I.Kom., M.Si.	
	1. Dr. Ir. Andrey Andoko Rector of Universitas Multimedia Nusantara, Indonesia 2. Prof. Dato Mazliham Mohd Su'ud President / CEO of Multimedia University Malaysia	
12.00 – 13.00	Lunch	Pre Function
13.00 – 15.00	Keynote Session	Main Hall
	Session Chair: Dr. Henilia Yulita SE.,MM.,M.I.Kom	
	Prof. Edson C. Tandoc Jr. Nanyang Technological University Singapore	
15.00 – 15.15	Coffee break	

Wednesday, 15th October 2025

Time	Agenda	Room
09.30 - 09.45	Registration	Pre Function
09.45 - 10.00	Coffee break	Pre Function
10.00 – 12.00	Paper Parallel Session	Breakout room ICON-SONICS
	▪ Session I Track: Emerging Technologies for System Monitoring and Security Chair: Ir. Ts. Dr. Azlan Bin Abd. Aziz ▪ Session II Track: Signal & Language Processing Chair: Ts. Thines Ganesan	
12.00 – 13.00	Lunch	Pre Function
13.00 – 15.00	Keynote Session	Main Hall
	Session Chair: Dr. Niki Prastomo, S.T., M.Sc.	
	Prof.Ts.Dr.Mardeni Bin Roslee FASc Multimedia University, Malaysia Keynote Title: Smart 5G IoT Palm Oil Soil Properties Monitoring System Assoc. Prof. Ts. Dr. Chee Yen (Bruce) Leow Universiti Teknologi Malaysia (UTM) Keynote Title: 6G: Enabling Ubiquitous Connectivity for a Fully Connected World	
15.00 – 15.15	Coffee Break	Ballroom
15.15 – 17.15	Paper Parallel Session	Breakout room ICON-SONICS
	▪ Session III Track: Neural Networks in Biomed & Vision Chair: Dr. Syabeela Bt Syahali ▪ Session IV Track: Communication Systems and Network Optimization Chair: Dr. Khair Razlan Bin Othman	

Thursday, 16th October 2025

Time	Agenda	Room
08.30 – 09.00	Registration	Pre Function
09.00 – 10.45	Keynote Session	Main Hall
	Session Chair: Assoc. Prof. Dr. Nor Azlina Binti Ab Aziz	
	Prof. Lai Weng Kin Tunku Abdul Rahman University of Management and Technology, Malaysia Keynote Title: The Trident of AI: Hope, Havoc and Hype	
10.45 - 11.00	Coffee break	Pre Function
11.00 – 12.00	Paper Parallel Session Session V Track: Industrial & Smart Systems Chair: Ir. Ts. Dr. Azlan Bin Abd. Aziz	Breakout room ICON-SONICS
12.00 – 13.00	Lunch	Pre Function
13.00 – 15.00	Paper Parallel Session - Session VI Track: Computer Vision & Applications Chair: Dr. Syabeela Bt Syahali - Session VII Track: Modeling & Optimization Chair: Ts. Thines Ganesan	Breakout room ICON-SONICS
15.00 – 15.15	Coffee Break	Pre Function
15.15 – 16.15	Paper Parallel Session Session VIII Track: AI in Industry & Learning Systems Chair: Dr. Khair Razlan Bin Othman	Breakout room ICON-SONICS
18.00 – 19.30	Gala Dinner	The Moon Bar @ Rooftop AMES Hotel

Friday, 17th October 2025

Time	Agenda	Meeting Point
08.00 - 11.00	Melaka City Tour	Tan Beng Swee Clock Tower, in front of The Red Christ Church Melaka

Paper Parallel Session

Wednesday, October 15th, 2025

Session Track	Emerging Technologies for System Monitoring and Security				
Session Chair	Ir. Ts. Dr. Azlan Bin Abd. Aziz				
Schedule	Wednesday, October 15, 2025				
	10:00				
	Day 01 Session 01 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D1-SES01-1	10:00	10:15	1571179938	Covert Data Exfiltration via Electromagnetic Side-Channel Emissions from Computer Memory	Oladapo A. Ajike (Prairie View A & M University, USA); Toya Acharya, Mohamed Chouikha, Annamalai Annamalai and Sheikh Tareq Ahmed (Prairie View A&M University, USA); Akshay Raghavendra Kulkarni (Prairie View A & M University, USA)
IS-D1-SES01-2	10:15	10:30	1571163403	Analysis of Industrial Noise from Machinery: A Case Study of Noise Exposure at Cable Factory, Indonesia	Sesilia Audina Sujana, Fahmy Rinanda Saputri and Nicholas Pranata (Universitas Multimedia Nusantara, Indonesia)
IS-D1-SES01-3	10:30	10:45	1571202759	Noise level analysis using I-SIMPA Simulation: A case study in the Hotel Operations Laboratory, Universitas Multimedia Nusantara, Indonesia	Fahmy Rinanda Saputri, Nicholas Robert, Vanesa Lorent and Muhammad Salehuddin (Universitas Multimedia Nusantara, Indonesia)
IS-D1-SES01-4	10:45	11:00	1571195675	IoT Based Plant Monitoring using Solar and LoRa Technology	Pravin Nair Gunasegaran and Thinesh Ganesan (Multimedia University, Malaysia); Sumendra Yogarayan (Multimedia University (MMU), Malaysia)

Session Track	Signal & Language Processing				
Session Chair	Ts. Thines Ganesan				
Schedule	Wednesday, October 15, 2025				
	11:00				
	Day 01 Session 02 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D1-SES02-1	11:00	11:15	1571180194	Multilingual Audio-Based Depression Detection using Audio Augmentation and Data Efficient Image Transformer	Monica Pratiwi (Universitas Multimedia Nusantara, Indonesia); Nur Hayati (Universitas Muhammadiyah Yogyakarta, Indonesia)
IS-D1-SES02-2	11:15	11:30	1571195955	Gender Differences in EEG Absolute Band Power Across Alzheimer's Disease, Frontotemporal Dementia, and Healthy Controls	Shahid Iqbal and Humaira Nisar (Universiti Tunku Abdul Rahman, Malaysia); Kim Ho Yeap (UTAR, Malaysia)
IS-D1-SES02-3	11:30	11:45	1571196129	Cross-Lingual Probing and Community-Grounded Analysis of Gender Bias in Low-Resource Bengali	Md. Asgor Hossain Reaj, Rajan Das Gupta and Jui Saha Pritha (American International University-Bangladesh, Bangladesh); Abdullah Al Noman (Wilmington University, USA); Abir Ahmed (Washington University of Science & Technology, USA); Golam Md Mohiuddin (Multimedia University, Malaysia); Tze Hui Liew (Multimedia University & CICC, COE of Advanced Cloud, Malaysia)
IS-D1-SES02-4	11:45	12:00	1571204842	Adaptive tuning of the unscented Kalman Filter using particle swarm optimization for inertial-GPS sensor fusion systems	Psyche Malabo (Technological Institute of the Philippines, Philippines); Bobby D. Gerardo (Northern Iloilo State University, Philippines)

Session Track	Neural Networks in Biomed & Vision				
Session Chair	Dr. Syabeela Bt Syahali				
Schedule	Wednesday, October 15, 2025				
	15:15				
	Day 01 Session 03 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D1-SES03-1	15:15	15:30	1571194665	Optimizing Leukemia Classification with Fine-Tuned SENet Variants: A Comparative Study on Binary and Multi-Class Tasks	Humaira Nisar and Kye Fung Lee (Universiti Tunku Abdul Rahman, Malaysia); Siti Atiyah Ali (Universiti Malaysia Sarawak, Malaysia)
IS-D1-SES03-2	15:30	15:45	1571195303	Atrous Spatial Pyramid Pooling(ASPP)-Enhanced U-Net with Squeeze-and-Excitation(SE) Channel Recalibration for Early Smoke Classification	Lola Naomi Enzelin Mangunsong and Samuel Ady Sanjaya (Universitas Multimedia Nusantara, Indonesia); Suyoto Suyoto (Universitas Atma Jaya Yogyakarta, Indonesia); Jansen Wiratama, Rudi Sutomo and Santo Fernandi Wijaya (Universitas Multimedia Nusantara, Indonesia)
IS-D1-SES03-3	15:45	16:00	1571204555	Advancing Prostate Cancer Diagnosis with DCGAN-Generated Synthetic Histopathology Images	Sayedur Rahman (American International University-Bangladesh (AIUB), Bangladesh); Touhid Alam (American International University-Bangladesh, Bangladesh & 408/1, Kuratoli, Khilkhet, Dhaka, Bangladesh); Shusmita Anjum Aziz (American International University-Bangladesh, Bangladesh); Md Arifur Rahman (Trine University, USA); B M Taslimul Haque (Central Michigan University, USA); Tze Hui Liew (Multimedia University & CICC, COE of Advanced Cloud, Malaysia)
IS-D1-SES03-4	16:00	16:15	1571204645	IntelliGrow: Image processing with IoT alert for pests and diseases classification in chili plant	Jardel Mckenzy Melvin and Danial Md Nor (Universiti Tun Hussein Onn Malaysia, Malaysia); Fahmy Rinanda Saputri (Universitas Multimedia Nusantara, Indonesia); King Lee Chua (Universiti Tun Hussein Onn, Malaysia); Abdel Rahman Al Ali Al Ali (Universiti Tun Hussein Onn Malaysia, Malaysia); Fahad Saleh M Abdallah (Government of Ajman, United Arab Emirates)

Session Track	Communication Systems and Network Optimization				
Session Chair	Dr. Khair Razlan Bin Othman				
Schedule	Wednesday, October 15, 2025				
	16:15				
	Day 01 Session 04 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D1-SES04-1	16:15	16:30	1571195991	Multi-Agent Reinforcement Learning for Trajectory and Handover Optimization in UAV-Assisted 6G HetNets	Yasir Ullah (Multimedia University, Malaysia); Mardeni Roslee (MMU, Malaysia); Farman Ali (Multimedia University, Cyberjaya, Malaysia); Mohd Azmi Ismail (TM Research & Development, Malaysia); Idris Olalekan Adeoye and Irfan Khan (Multimedia University, Cyberjaya, Malaysia)
IS-D1-SES04-2	16:30	16:45	1571196039	Octagonal Patch Antenna with Modified SRR Width and Ground Slot for Sub-6 GHz Band	Fardin Kabir (Multimedia University Cyberjaya, Malaysia); Mardeni Roslee (MMU, Malaysia); Anas Abas (Telekom Research and Development Sdn Bhd, Malaysia); Yasir Ullah and Jun Jiat Tiang (Multimedia University, Malaysia); Fahmid Kabir (Simon Fraser University Burnaby, British Columbia, Canada)
IS-D1-SES04-3	16:45	17:00	1571196050	FSO Transmission Framework Employing F-OFDM for Error Probability and Divergence Loss Evaluation in 5G Networks	Farman Ali (Multimedia University, Cyberjaya, Malaysia); Yasir Ullah (Multimedia University, Malaysia); Mardeni Roslee (MMU, Malaysia); Irfan Khan (Multimedia University, Cyberjaya, Malaysia); Fardin Kabir (Multimedia University Cyberjaya, Malaysia)
IS-D1-SES04-4	17:00	17:15	1571165225	System-Wise Reliability Assessment in District Heating Systems: Integrating Technical and Customer-Centric Indices	Amir Rafati (Masjed-Soleiman Branch, Islamic Azad University, Iran); Maryamsadat Tahavori (Technical University of Denmark, Denmark); Hamid Reza Shaker (University of Southern Denmark, Denmark)

Thursday, October 16th, 2025

Session Track	Industrial & Smart Systems				
Session Chair	Ir. Ts. Dr. Azlan Bin Abd. Aziz				
Schedule	Thursday, October 16, 2025				
	11:00				
	Day 02 Session 05 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D2-SES05-1	11:00	11:15	1571195063	Medium Voltage Drive with Dynamic Power Quality Compensation for High-Harmonic Industrial Environments	Naveen Garg (Cameron LNG, USA)
IS-D2-SES05-2	11:15	11:30	1571195329	AI-Driven Diagnostics and Predictive Maintenance in NPI Service Engineering: A Comprehensive Survey of Methods, Applications, and Future Directions	Makrand Godbole (Tesla Inc., USA & North Carolina State University, USA); Adwaita Janardhan Jadhav (Apple, USA)
IS-D2-SES05-3	11:30	11:45	1571195875	Design for Serviceability in Complex Electromechanical NPI Products: A Comprehensive Survey of Principles, Metrics, and Field Integration Strategies	Makrand Godbole (Tesla Inc., USA & North Carolina State University, USA)
IS-D2-SES05-4	11:45	12:00	1571194014	Design and Validation of Automated Drone Missions for Agricultural Area Scanning in Smart Farming	Winarno PM, Fenina Adline Twince Tobing and Muhammad Rizki Fadhil (Universitas Multimedia Nusantara, Indonesia)

Session Track	Computer Vision & Applications				
Session Chair	Dr. Syabeela Bt Syahali				
Schedule	Thursday, October 16, 2025				
	13:00				
	Day 02 Session 06 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D2-SES06-1	13:00	13:15	1571172258	Comparative Evaluation of Object Detection Models for Identifying Fruit Flies in Snake Fruit Cultivation	Indah Desri Wahyuni and Nabila Husna Shabrina (Universitas Multimedia Nusantara, Indonesia); Suputa Suputa and Riya Fatma Sari (Universitas Gadjah Mada, Indonesia)
IS-D2-SES06-2	13:15	13:30	1571178738	From Pixels to Pathogens: A Review of Computer Vision in Strawberry Disease Detection	Muhammad Imran Ahmad and Tan Shie Chow (Universiti Malaysia Perlis, Malaysia); Fahmy Rinanda Saputri and David Agustriawan (Universitas Multimedia Nusantara, Indonesia); Mohd Nazri Abu Bakar, Raja Abdullah Raja Ahmad, Shafie Omar, Wan Mohd Faizal Wan Nik and Sharul Fazly Sulaiman (Universiti Malaysia Perlis, Malaysia)
IS-D2-SES06-3	13:30	13:45	1571196209	Optimized Deep Learning Models for Robust Splicing-Based Image Forgery Detection Using CASIA Mixed Dataset	Irmawati Irmawati (Universitas Multimedia Nusantara, Indonesia); Nur Hayati (Universitas Muhammadiyah Yogyakarta, Indonesia)
IS-D2-SES06-4	13:45	14:00	1571194047	Faster R-CNN and U-Net Based Image Recognition to Classify Rice Plants Health	Daffi B Firdaus, Winarno PM and Moeljono Widjaja (Universitas Multimedia Nusantara, Indonesia)

Session Track	Modeling & Optimization				
Session Chair	Ts. Thines Ganesan				
Schedule	Thursday, October 16, 2025				
	14:00				
	Day 02 Session 07 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D2-SES07-1	14:00	14:15	1571187141	A study of the Shewhart Median Scheme with Estimated Process Parameters based on Expected Median Run Length for Sustainable Manufacturing	Zhi Lin Chong (Universiti Tunku Abdul Rahman, Malaysia); Wei Lin Teoh (Heriot-Watt University Malaysia, Malaysia); Peh Sang Ng (Universiti Tunku Abdul Rahman, Malaysia); Huay Woon You (Universiti Kebangsaan Malaysia, Malaysia); Teh Sin Yin (Universiti Sains Malaysia, Malaysia)
IS-D2-SES07-2	14:15	14:30	1571193059	Evaluate Road Depressions with Deep Learning and Mobile Application	Wei Fun Chan and Ee Mae Ang (Multimedia University, Malaysia)
IS-D2-SES07-3	14:30	14:45	1571200899	Minimizing Packaging Boxes in Online Retail Fulfillment Using Multi-Strategy Heuristics and Extreme-Point Based 3D Bin Packing	Widiq Waskito Adimukti and Samuel Ady Sanjaya (Universitas Multimedia Nusantara, Indonesia)
IS-D2-SES07-4	14:45	15:00	1571201197	Minimizing E-commerce Order Cancellation Cost Using Shap-based Explainable XGBoost	Angelin Angelin and Samuel Ady Sanjaya (Universitas Multimedia Nusantara, Indonesia)

Session Track	AI in Industry & Learning Systems				
Session Chair	Dr. Khair Razlan Bin Othman				
Schedule	Thursday, October 16, 2025				
	15:15				
	Day 02 Session 08 Room ICON-SONICS				
Session Code	Start	End	ID Paper	Title	Authors with affiliation and country
IS-D2-SES08-1	15:15	15:30	1571207156	Sentiment Analysis of Carbon Trading in Indonesia: A Machine Learning Approach Using Naïve Bayes	Kelvin Antonio (CONCISE, Indonesia); Fenina Adline Twince Tobing (Universitas Multimedia Nusantara, Indonesia); Sy Yuliani (Multimedia Nusantara University, Indonesia); Eunike Endariahna Surbakti, Wirawan Istiono and Alexander Waworuntu (Universitas Multimedia Nusantara, Indonesia)
IS-D2-SES08-2	15:30	15:45	1571201193	Cosine Similarity-Based Spectral Graph Clustering of ArchiMate Relationships and Metadata for Information System Consolidation	Jovita Tandiana and Samuel Ady Sanjaya (Universitas Multimedia Nusantara, Indonesia)
IS-D2-SES08-3	15:45	16:00	1571201195	Forecasting of Clinical Program Gross Growth over Revenue through Outcomes and Workforce Metrics using LSTM-XGBoost	Fiorenza Irene Christabelle Suryanto and Samuel Ady Sanjaya (Universitas Multimedia Nusantara, Indonesia)