2026 IEEE Eleventh International Conference on Communications and Electronics (IEEE ICCE 2026)

STATISTICS

-	Number of reviewed papers	**259**
-	Number of Full-acceptance papers (oral presentation)	**128**
	Number of Full-acceptance papers included in Proceedings	**123**
-	Number of accepted poster papers	**81**
-	Acceptance rate of Full-acceptance papers after being reviewed	**49.42%**
-	Acceptance rate of Full-acceptance papers included in Proceedings	**47.49%**
-	Number of submitting countries	**TBD**

TENTATIVE PROGRAM AT A GLANCE

Wednesday, July 29, 2026	
8:30 – 9:00	**Opening Ceremony:** – **Welcome message by host University** – **Welcome speech of General Co–Chair** – **Welcome speech by President of TBD** – **Conference introduction to IEEE ICCE 2026 by Technical Program Co-chair**
Keynote Session **Time: 08:30 – 12:30** **Room: GRAND BALLROOM (First Floor)** **Session Chair: TBD**	
9:00 – 9:45	**Keynote 1:** ***"6G Values and Technologies"*** by Takehiro Nakamura NTT DOCOMO, Inc., Japan
9:45 – 10:30	**Keynote 2:** ***"Advances in Millimeter-Wave Circuit Design for Future Communications"*** by Kenichi Okada Institute of Science Tokyo, Tokyo, Japan
10:30 – 11:00	**Coffee Break**
11:00 – 11:45	**Keynote 3:** ***"Ultrafast Laser-enabled High-resolution Ultrasonic Characterization of Semiconductor Interior Structures"*** by Zhongqing Su The Hong Kong Polytechnic University, Hong Kong, China
11:45 – 12:30	**Keynote 4:** ***"AI on the Space Edge"*** by Tat-Jun Chin Adelaide University, South Australia, Australia
12:30 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**

	LOCATION on the Second Floor			
Time	**Hon Tam Room**	**Hon Mun Room**	**Hon Ong Room**	**Hon Tre Room**
13:30 – 15:10	**SS- Advances in Medical Imaging and Image Processing 1**	**PE-1**	**SP-1**	**Open6GRIT-Workshop**
15:10 – 15:40	**Coffee Break & Poster Session 1 (30 minutes) – Posters in Signal Processing and Applications**			
15:40 – 17:20	**SS- Advances in Medical Imaging and Image Processing 2**	**PE-2**	**SP-2**	**Open6GRIT-Workshop**
Thursday, July 30, 2026				
Time	**Hon Tam Room**	**Hon Mun Room**	**Hon Ong Room**	**Hon Tre Room**
8:30 – 9:50	**ES-1**	**PE-3**	**SP-3**	**CNS-1**
9:50 – 10:20	**Coffee Break & Poster Session 2 (30 minutes) – Posters in Communication Networks and Systems**			
10:20 – 12:00	**ES-2**	**PE-4**	**SP-4**	**CNS-2**
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**			
13:30 – 15:10	**ES-3**	**SS- Intelligent multimodal Perception and Cognitive Engineering 1**	**SP-5**	**CNS-3**

15:10 – 15:40	**Coffee Break & Poster Session 3 (30 minutes) – Posters in Electronic Systems, Microwave Engineering**			
	LOCATION on the Second Floor			
Time	**Hon Tam Room**	**Hon Mun Room**	**Hon Ong Room**	**Hon Tre Room**
15:40 – 17:20	**ME-1**	**SS- Intelligent multimodal Perception and Cognitive Engineering 2**	**SP-6**	**CNS-4**
GALA DINNER (Thursday, July 30, 2026) Time: 18:30 – 21:00 Venue: TBD				
Friday, July 31, 2026				
Time	**Hon Tam Room**	**Hon Mun Room**	**Hon Ong Room**	**Hon Tre Room**
8:30 – 9:50	**ME-2**	**ME-3**	**SS - Distributed AI across Edge-Cloud Continuum**	**CNS-5**
9:50 – 10:10	**Coffee + Brunch**			
10:10 – 11:50				**CNS-6**

TENTATIVE TECHNICAL PROGRAM

SPECIAL SESSION ON ADVANCED IN MEDICAL IMAGING AND IMAGE PROCESSING

12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**

Afternoon, Wednesday, July 29, 2026

SS - Advances in Medical Imaging and Image Processing 1
Time: 13:30 – 15:10
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
13:30 – 13:50	MALA-Accelerated Bayesian Ultrasound Full-Waveform Inversion for Speed-of-Sound Reconstruction and Uncertainty Mapping	Qiang Li, Dan Li, Xue Jiang, Boyi Li, Chengcheng Liu and Dean Ta (Fudan University, China)
13:50 – 14:10	Automatic 3D Ultrasound Parametric Modeling of Lumbar Spine - a Feasibility Study	Yuchong Gao (Shanghai Tech, China); Jianhao Zhao (ShanghaiTech University, China); Tianyi Liang and Mingbo Zhang (The First Medical Center of Chinese PLA General Hospital, China); Rui Zheng (ShanghaiTech University, China)
14:10 – 14:30	Physics-Informed Input and Decomposed SSIM for Accurate Single-Shot 3D Reconstruction	Hieu Nguyen (International University, VNU-HCM, Vietnam & Neuroimaging Research Branch, NIDA IRP, NIH, USA); Khai T. Dinh (International University, VNU-HCM, Vietnam); Long TonThat (International University HCMC, Vietnam); Khang Nguyen (International University, VNU-HCM, Vietnam); Zhao Wang (The Catholic University of America, USA)
14:30 – 14:50	Automated Freehand 3D Ultrasound Reconstruction of the Midpalatal Suture Using Deep Learning	Trang H. Hoang (University of Alberta, Canada); Dari Joshua Acuña Quiñones (National University of Engineering, Peru); Jiaqing Wang, Kim Cuong T Nguyen and Paul Major (University of Alberta, Canada); Dean Ta (Fudan University, China); Edmond Lou and Lawrence H Le (University of Alberta, Canada)
14:50 – 15:10	Hybrid Quantum Federated Learning for Brain Tumor Magnetic Resonance Imaging Analysis	Quang Nhan Hoang, Minh Tri Nguyen, Duc Ngoc Minh Dang (FPT University, Vietnam)
15:10 – 15:40	**Coffee Break & Poster Session 1 (30 minutes) – Posters in Signal Processing and Applications**	

SS - Advances in Medical Imaging and Image Processing 2
Time: 15:40 – 17:40
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
15:40 – 16:00	Enhancing RT-DETR with Reinforcement Learning for Intracranial Hemorrhage Detection and Classification in Brain CT Images	Kangsan Lee, Hafiz Zahid Tufail, Sunghyun Park, Joon-Young Kim, Sana Ullah, Jiheon Oh, Won Hee Lee and Tae-Seong Kim (Kyung Hee University, South Korea)
16:00 – 16:20	GroundMed-SAM: Prompt-Based Zero-Shot Medical Image Segmentation	Viet Dung Nguyen, Luong Hoang Quan, Ngoc P Pham (Hanoi University of Science and Technology, Vietnam)
16:20 – 16:40	A MedViT-Inspired Hybrid CNN-Transformer Framework for Thyroid Nodule Classification	Tuvensha Jegatheeswaran (University of Vavuniya, Sri Lanka), Logiraj Kumaralingam, Anparasy Sivaanpu, Manh-Hai Hoang (University of Alberta, Canada); Dean Ta (Fudan University, China); Christopher Fung and Lawrence H Le (University of Alberta, Canada); Nagulan Ratnarajah (University of Vavuniya, Sri Lanka)
16:40 – 17:00	Improving GI Polyp Segmentation with a Balanced-Mix-Driven	Viet Dung Nguyen and Nguyen Duong Nguyen Nhat (Hanoi University of Science and Technology, Vietnam); Dung Nguyen Van Tuan (Vietnam National University, Vietnam); Thinh Nguyen-Quang (Hanoi University of Science and Technology, Vietnam)
17:00 – 17:20	Quantitative Texture Analysis of Intestinal Ultrasound for Pediatric Inflammatory Bowel Disease	Manh-Hai Hoang, Logiraj Kumaralingam, Anparasy Sivaanpu and Javaneh Alavi (University of Alberta, Canada); Rui Zheng (ShanghaiTech University, China); Alexandra Hudson, Hien Huynh, Edmond Lou and Lawrence H Le (University of Alberta, Canada)
17:20 – 17:40	Spatially Consistent Slice-Wise Intracranial Hemorrhage Segmentation in Brain CT Images	Nguyen Hoang Bach (Academy of Military Science and Technology, Vietnam); Tung Quang Pham (Academy of Military Science and Technology, Vietnam & Le Quy Don Technical Academy, Vietnam); Nguyen Sinh Huy, Thanh Nguyen Chi (AMST, Vietnam); Van Tuan Nguyen (Bach Mai Hospital, Vietnam); Thanh-Hai Tran, Vu Hai (Hanoi University of Science and Technology, Vietnam)

TRACK ELECTRONIC SYSTEMS

Morning, Thursday, July 30, 2026

ES-1: Digital IC
Time: 8:30 – 9:50
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	A High-Throughput, Low-Power SRAM-Based Spiking Neuron Network Accelerator	Phuong Linh Nguyen, Chi Hoang Phuong, Anh Tung Ong, Nguyen D. Minh (Hanoi University of Science and Technology, Vietnam)
8:50 – 9:10	A High-Efficiency, High-Accuracy Approximate Multiplier for DNN Accelerators	Truong Nguyen Ly Thien, Hong-Linh Vo (Ho Chi Minh City University of Technology, Vietnam)
9:10 – 9:30	A Fixed-Point CLT-Based FPGA AWGN Generator Using a Modified Three-Component Combined Tausworthe Backbone	Minh Nguyen Hung, Vinh Truong Quang (Ho Chi Minh City University of Technology, Vietnam)
9:30 – 9:50	Development of a Single-Pixel Camera System Using FPGA-Based Orthogonal Matching Pursuit and Dynamic Resolution Imaging Method	Quyen Van Hoang (Vietnam National University Hanoi, Vietnam); Vinh Ngoc Tran (VNU University of Engineering and Technology, Vietnam); Yoshio Hayasaki (Center for Optical Research and Education (CORE) Utsunomiya University, Japan); Hoang Quan Nguyen (VNU University of Engineering and Technology, Vietnam); Quang Duc Pham (University of Engineering and Technology & Hanoi Vietnam National University, Vietnam)
9:50 – 10:20	**Coffee Break & Poster Session 2 (30 minutes) – Posters in Communication Networks and Systems**	

ES-2: Analog IC
Time: 10:20 – 12:00
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
10:20 – 10:40	System-Level Performance Evaluation of Indoor Energy Harvesting for Low-Power IoT Applications	Hong-Hanh Tran Vu, Thao-Vy Tran and Thanh Tuan Phan (University of Information Technology, Vietnam); Le Huy Trinh (University of Information and Technology & Vietnam National University, Vietnam); Manh-Thao Nguyen (University of Information

		Technology, Vietnam); Fabien Ferrero (Université Cote d'Azur, CNRS, LEAT & CREMANT, France)
10:40 – 11:00	An Architecture for Approaching the Physical Power Bound in Displacement-Constrained Vibration Energy Harvesters	Cuong Phu Le (Norwegian University of Science and Technology, Norway); Tu Dac Ho (Norwegian University of Science and Technology, Norway & The Arctic University of Norway, Norway); Zhenni Pan (Waseda University, Japan); Binh Duc Truong (University of Michigan, USA)
11:00 – 11:20	A 0.16 mV Inaccuracy Reference Voltage with 1.5 Ppm/°C Temperature-Drift for High-Precision Battery Management ICs	Hoa Nguyen Quynh (Korea Advanced Institute of Science and Technology, South Korea & Hanoi University of Science and Technology, Vietnam); Huy Nguyen Quang, Sang-Gug Lee (Korea Advanced Institute of Science and Technology, South Korea); Loan Pham-Nguyen (Hanoi University of Science and Technology, Vietnam)
11:20 – 11:40	An Analysis of Type-I Sub-Sampling Phase-Locked Loops and a Ramp Based Architecture Proposal Reaching a High, Constant Gain of 115dB	Thinh Tran-Dinh (Korea Advanced Institute of Science and Technology, Korea); Bao Hoang-Nguyen, Minh Quang Nguyen, Ngoc Le Van, Quang Vu Trong and Khanh Du Doan, Thi-Nhan Pham, Quan Nguyen-Gia (Hanoi University of Science and Technology, Vietnam); Sang-Gug Lee (Korea Advanced Institute of Science and Technology, South Korea); Loan Pham-Nguyen (Hanoi University of Science and Technology, Vietnam)
11:40 – 12:00	Automated Sizing for Complementary Cross-Coupled LC-VCO Using Deep Deterministic Policy Gradient	Gia Huy Duong, Tri Pham Minh Hoang, Hoang Trang (Ho Chi Minh City University of Technology, Vietnam)
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	

Afternoon, Thursday, July 30, 2026

ES-3: Biomedical Circuit & Devices
Time: 13:30 – 15:10
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
13:30 – 13:50	Parametric Analysis of SAW-Driven Droplet Streaming for Biomedical Lab-on-Chip Systems	Dam Thi Huong, Nguyen Thi Hue, Nguyen Duc Thuan and Hong Hoang Si (Hanoi University of Science and Technology, Vietnam)
13:50 – 14:10	A High-Input-Impedance Low-Noise Amplifier with Four-Input OTA for Non-Contact ECG Monitoring	Anh-Tuan Nguyen and Huy Quang Thai (Hanoi University of Science and Technology, Vietnam); Truong Bui Xuan (Korea Advanced Institute of Science & Technology, South Korea); Tung Nguyen ((Hanoi University of Science and Technology, Vietnam); Seokjae Lee and Kim Yeongji (The Catholic University of Korea, South

		Korea); Quan Nguyen-Gia (Hanoi University of Science and Technology, Vietnam); Soon-Jae Kweon (The Catholic University of Korea, South Korea); Loan Pham-Nguyen (Hanoi University of Science and Technology, Vietnam)
14:10 – 14:30	Optimizing Energy Efficiency and Signal Quality in Reflective Photoplethysmography via Adaptive Gain Control	Đặng Nam Khánh, Xuan Dung Nguyen and Chi-Dung Dang, Vinh Tran-Quang (Hanoi University of Science and Technology, Vietnam)
14:30 – 14:50	Investigation of Interference Effect for Very Thin Channel Macaroni MOSFETs	Quan Nguyen-Gia (Hanoi University of Science and Technology, Vietnam)
14:50 – 15:10	A Frequency-Response-Based Approach to Current-Cell Output Impedance Analysis for 65 nm CMOS DAC Design	Cuong-Quoc Nguyen, Huy Minh Nguyen and Cuong Huynh (Ho Chi Minh City University of Technology, Vietnam)
15:10 – 15:40	**Coffee Break & Poster Session 3 (30 minutes) – Posters in Electronic Systems, Microwave Engineering**	

TRACK MICROWAVE ENGINEERING

Afternoon, Thursday, July 30, 2026

15:10 – 15:40	**Coffee Break & Poster Session 3 (30 minutes) – Posters in Electronic Systems, Microwave Engineering**

ME-1: Radar Applications
Time: 15:40 – 17:20
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
15:40 – 16:00	Recent Developments in Space-Time-Coded Direct Antenna Modulation-Enabled Radar Sensing and Communications	Shuping Li (Rutgers University, USA); Chung-Tse Michael Wu (National Taiwan University, Taiwan)
16:00 – 16:20	Two-Dimensional Localization and Tracking of Target Using Nonrandom Radar Network	Viet Thuy Vu, Majid Joshani and Mats I. Pettersson (Blekinge Institute of Technology, Sweden)
16:20 – 16:40	A Design of a Circular-Shaped Monopulse Slotted Cavity Waveguide Array Antenna Systems	Tuan-Anh Le Trong, Quyet Nguyen Manh; Son Van Hoang, Hieu Trong Dam, Thanh Nguyen Tien, Huan Van Dang (Viettel Aerospace Institute, Viettel Group, Vietnam)
16:40 – 17:00	Efficient Pattern Synthesis for Multiple Concentric Circular Arrays via Zernike Expansion and Stochastic Gradient Descent	Nguyen Minh Tran, Cong Minh Nguyen (VNU-University of Engineering and Technology, Vietnam); Toan Thi Nguyen (University of Hai Duong, Vietnam); Giang Truong (Vietnam National University, Hanoi, Vietnam)
17:00 – 17:20	Design of Hemispherical Phased Arrays for Fully Upper-Spherical Scan Coverage	Thai Binh Cong Nguyen, Son Van Hoang, Hai Dang Le, Nguyen Khac Kiem and Son Xuat Ta (Hanoi University of Science and Technology, Vietnam)

Morning, Friday, July 31, 2026

ME-2: Reconfigurable Metasurfaces
Time: 8:30 – 9:50
Location: Hon Tam Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	A Reconfigurable Metasurface for Simultaneous Polarization Conversion and Beam Steering in Next-Generation Wireless Networks	Thinh Nguyen (Doctoral Researcher, Finland); Tung Duy Phan and Ping Jack Soh (University of Oulu, Finland)
8:50 – 9:10	A Wideband 1-Bit Guided Wave Reconfigurable Intelligent Surface for Future 6G Wireless Network	Tien Dat Dam, Thanh Long Nguyen (Hanoi University of Science and Technology, Vietnam); Nguyen Minh Tran (VNU - University of Engineering and Technology, Vietnam); Thuy Minh Le (Hanoi University of Science and Technology, Vietnam)
9:10 – 9:30	Design and Optimization of Custom NFC Antennas for Electronic Chessboard Applications	Quang Vu Pham, Minh Tien Tran, Thanh Tuan Phan, Le Huy Trinh (University of Information and Technology & Vietnam National University, Vietnam); Van-Hieu Nguyen (Ho Chi Minh City University of Technology, Vietnam); Fabien Ferrero (Université Cote d'Azur, CNRS, LEAT & CREMANT, France)
9:30 – 9:50	A Voltage-Control Architecture for 2-Bit Reconfigurable Intelligent Surfaces in the Sub-6 GHz Band	Cuong Nguyen Van (Hanoi University of Science and Technology, Vietnam); Quang Anh Nguyen (Viettel High Technology Industries Corporation, Vietnam); Nguyen Khac Kiem (Hanoi University of Science and Technology, Vietnam); Gangil Byun (Ulsan National Institute of Science and Technology, South Korea); Son Xuat Ta (Hanoi University of Science and Technology, Vietnam)
9:50 – 10:20	**Coffee + Brunch**	

Morning, Friday, July 31, 2026 (Parallel to Session ME-2)

ME-3: Antennas and Microwave Components
Time: 8:30 – 9:50
Location: Hon Mun Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	A High-Efficiency Class AB Power Amplifier with Second Harmonic Impedance Control	Tran Doan Dat, Tuan Le Dinh and Do Tuan Hao (Ho Chi Minh City University of Technology, Vietnam); Alfred Shiu (Rainno Holding Limited, Singapore); Cuong Huynh (Ho Chi Minh City University of Technology, Vietnam)
8:50 – 9:10	A Compact Design of High-Sensitivity Optimal-PCE Dual-Band Rectifier Using Coupled-Line Structure	Thanh-Trung Vu (Hanoi University of Science and Technology, Vietnam); Dang-An Nguyen (VinUniversity, Vietnam); Huy-Dung Han (Hanoi University of Science and Technology, Vietnam)
9:10 – 9:30	Compact Triple-Resonant UHF RFID Tag for Reliable Liquid-Container Identification	Minh-Tan Nguyen (Ho Chi Minh City University of Technology, Vietnam); Huaming Chen and Yi-Fang Lin (National Kaohsiung University of Science and Technology, Taiwan); Van-Hieu Nguyen (Ho Chi Minh City University of Technology,

		Vietnam); Chin-Cheng Chang (Taiwan); Hung Dinh (Ho Chi Minh City University of Technology, Vietnam)
9:30 – 9:50	Compact 2.4 GHz Meandered PIFA for IoT Applications: SNR-Based Link Evaluation	Nguyen Thanh Chien (Hanoi University of Science and Technology, Vietnam); Tam Nguyen Thanh (Le Quy Don Technical University, Vietnam); Thanh Dat Nguyen, Xuan Quang Nguyen, Quoc Cuong Nguyen, Thuy Minh Le (Hanoi University of Science and Technology, Vietnam); Tan-Phu Vuong, Sr. (Grenoble INP, France)
9:50 – 10:20	**Coffee + Brunch**	

TRACK POWER ELECTRONICS		
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	
Afternoon, Wednesday, July 29, 2026		
PE-1: Power Electronics 1 **Time: 13:30 – 15:10** **Location: Hon Mun Room** **Session chair: TBD**		
Time	**Title**	**Authors**
13:30 – 13:50	Improved Virtual Zero CMV SVPWM Method to Reduce Harmonic Distortion for Four-Level NNPC Inverters	Le Nam Pham, Quoc Dung Phan, Nho Nguyen (Ho Chi Minh City University of Technology, Vietnam & Vietnam National University HCMC, Vietnam)
13:50 – 14:10	Research on Capacitor Voltage Balancing Method in Modular Multilevel Converters Using ADALINE Adaptive Neural Networks	Cao Truong Son Nguyen, Phuong Viet Pham, Huu Nguyen Trinh and Chi Hieu Pham (Hanoi University of Science and Technology, Vietnam); Hung Cuong Tran (Phenikaa University, Vietnam); Duc Duong Nguyen (Vietnam National University Of Agriculture, Vietnam)
14:10 – 14:30	A Machine Learning-Based Method for Open-Circuit Fault Detection in Modular Multilevel Converters Using Output Current Features	Quang Thai Tran (Ho Chi Minh City University of Technology, Vietnam); Quoc Dung Phan (Ho Chi Minh City University of Technology, Vietnam & Vietnam National University HCMC, Vietnam)
14:30 – 14:50	A Nearest Level Modulation Method Without Capacitor Voltage Measurement for Six-Phase Modular Multilevel Converters	Hung Cuong Tran (Phenikaa University, Vietnam); Van Thai Pham, Duy Loi Bui, Thanh Thang To and Phuong Viet Pham (Hanoi University of Science and Technology, Vietnam)
14:50 – 15:10	Hybrid Space Vector PWM Control to Reduce Common-Mode Voltage for Three-Level T-NPC Inverter Under Switch-Open-Circuit Fault	Hong-phong Nguyen Le (Vietnam National University Ho Chi Minh City, Vietnam); Khoa Pham (Ho Chi Minh City University of Technology, Vietnam); Tan Luong Van (Ho Chi Minh City University of Industry and Trade, Vietnam); Nho Nguyen (Hochiminh City University of Technology, Vietnam)
15:10 – 15:40	**Coffee Break & Poster Session 1 (30 minutes) – Posters in Signal Processing and Applications**	
PE-2: Power Electronics 2		

Time: 15:40 – 17:00
Location: Hon Mun Room
Session chair: TBD

Time	Title	Authors
15:40 – 16:00	A Generalized Planar Winding Arrangement Method for CM Noise Suppression in LLC Converter	Cong-Hien Diem, Nguyen Danh-Nam, Quoc-Khanh Ngo, Thanh-Vinh Tran, Quang-Trung Dao and Duy-Dinh Nguyen (Hanoi University of Science and Technology, Vietnam)
16:00 – 16:20	An Interleaved LLC Resonant Converter with Reconfigurable Output for Wide-Range EV Fast Charging	Ngo Thi Le, Dinh Hai Nam and Kien-Trung Nguyen (Hanoi University of Science and Technology, Vietnam)
16:20 – 16:40	A Reconfigurable LLC Resonant DC-DC Converter Supporting 120 V/240 V Operation in Vehicle-to-Load Applications	Hoang Dung Nguyen (Hanoi University of Science and Technology, Vietnam); Huu Phuc Kieu (Van Lang University, Vietnam); Manh Quan Dao, Quoc Cuong Pham, Tuan Anh Do, Nhat Minh Dang, Minh Long Dau (Hanoi University of Science and Technology, Vietnam); Le Xuan Khoi (Texas Instruments, Hanoi, Vietnam), Phuong Vu Hoang (Hanoi University of Science and Technology, Vietnam)
16:40 – 17:00	A Single-Stage Split-Source Inverter Wireless Power Transfer System for Wide Voltage Battery Applications	Tin Chanh Truong (University of Ulsan, South Korea); Huu-Cong Vu (Hanoi University of Civil Engineering, Vietnam); Duy Anh Dong (Hanoi University of Science and Technology, Vietnam); Quang Tan Nguyen (VinUniversity, Vietnam); Phi Long Nguyen (Hanoi University of Industry & Center for Environmental Intelligence, VinUniversity, Vietnam)

Morning, Thursday, July 30, 2026

PE-3: Power Electronics 3
Time: 8:30 – 9:50
Location: Hon Mun Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	Look-Up Table Based PMSM Control Method Using Low Memorized Data for Electric Vehicle	Jung-Hyo Lee (Kunsan National University, South Korea)
8:50 – 9:10	Fault-Tolerant Control of Non-Sinusoidal Multiphase Machines Based on a Novel Single Transformation Matrix	Thi Hai Yen Tran and Duc Tan Vu (Thai Nguyen University of Technology, Vietnam); Ngac Ky Nguyen (Arts et Metiers Institute of Technology, France); Hai Do (Thai Nguyen University of Technology, Vietnam)
9:10 – 9:30	Applied Voltage Based Super Twisting Observer for Robust Sensorless PMSM Control Under Inverter Saturation	Pham Minh Duc, Chau Minh Nguyen, Hoang Minh Tran, Tuyen Nguyen Dinh and Vi Thanh Truong (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam)

9:30 – 9:50	Novel Harmonic Suppression Method for Independently Controlled Neutral Module in Three-Phase Four-Wire Converter	Minh Nghia Nguyen, Phuong Vu Hoang and Anh Tan Nguyen (Hanoi University of Science and Technology, Vietnam)
9:50 – 10:20	**Coffee Break & Poster Session 2 (30 minutes) – Posters in Communication Networks and Systems**	
PE-4: Power Electronics 4 **Time: 10:20 – 11:20** **Location: Hon Mun Room** **Session chair:** TBD		
Time	**Title**	**Authors**
10:20 – 10:40	Angular Free-Positioning Wireless Power Transfer Using Bipolar Diagonalized Transmitting Coil Structure	Hoang Le-Huu (VinUniversity, Vietnam); Chulhun Seo (Soongsil University, South Korea); Nguyen Khac Kiem (Hanoi University of Science and Technology, Vietnam); Ngoc Ta-Quang (Vietnam Japan University, Vietnam)
10:40 – 11:00	Restoring Overcurrent Relay Coordination in Distribution Networks with Inverter-Based Distributed Generation Using an Enhanced SOS Algorithm	Tuan Khanh Dang, Nhat Huy Huynh, Khoa Hoang Truong, Huynh Quoc Viet, Ky Canh Nguyen and Ngoc Dieu Vo (Ho Chi Minh City University of Technology, Vietnam)
11:00 – 11:20	Adaptive Carrier Phase Angle Correction Strategy in Decentralized Control of Cascaded Converters Under Voltage Sag Conditions	Phu Cong Nguyen (Ho Chi Minh City University of Industry and Trade, Vietnam); Quoc Dung Phan (Ho Chi Minh City University of Technology, Vietnam & Vietnam National University HCMC, Vietnam)
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	

SPECIAL SESSION ON INTELLIGENT MULTIMODAL PERCEPTION AND COGNITIVE ENGINEERING		
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	
Afternoon, Thursday, July 30, 2026		
SS-Intelligent Multimodal Perception and Cognitive Engineering: Human Perception and Cognition **Time: 13:30 – 14:50** **Location: Hon Mun Room** **Session chair: TBD**		
Time	**Title**	**Authors**
13:30 – 13:50	Investigating Cross-Modal Semantics in Large Language Models Using Concept-Color Associations	Yan Zhang, Huijing Lin and Qi Zhang (Tsinghua University, China); Chaoyi Wang (University College Dublin, Ireland); Huaze Tang (Tsinghua University, China); Pei Sun (City University of Macau, Macao); Wenbo Ding and Shiguang Ni (Tsinghua University, China)
13:50 – 14:10	Effects of Implicit Role Differentiation on Performance in Dyadic Joint Tasks	Aiko Murata (NTT, Inc, Japan); Masaki O. Abe (Hokkaido University, Japan); Katsumi Watanabe (Waseda University, Japan)
14:10 – 14:30	When Vision and Audition Compete: Trade-Offs in Bimodal Word Recognition	Hanaki Sawada and Junji Ohyama (Research Institute on Human and Societal Augmentation, AIST / University of Tsukuba)
14:30 – 14:50	Lightweight PPG-Based Drowsiness Detection: A Multi-Domain Feature Ablation and Computational Analysis	Thang Manh Hoang, Vu Trinh Tu and Nguyen Duy Huy (Hanoi University of Science and Technology, Vietnam)
14:50 – 15:40	**Coffee Break & Poster Session 3 (30 minutes) – Posters in Electronic Systems, Microwave Engineering**	
SS-Intelligent Multimodal Perception and Cognitive Engineering 2: Intelligent Multimodal Systems **Time: 15:40 – 17:00** **Location: Hon Mun Room** **Session chair: TBD**		
Time	**Title**	**Authors**

15:40 – 16:00	Data Fusion of Cameras Attached on Dual UAVs for Real-Time Human Detection and Localization	Tuan Do Trong, Nguyen Tat Dat, Nguyen Ba Dong and Bui Van Quyen, Nguyen Van Duc (Hanoi University of Science and Technology, Vietnam)
16:00 – 16:20	Predefined-Time Formation Control for Multi-agent Systems: Application for Multi-Autonomous Vehicles	Khanh Huy Tran, Nguyen Thi Thanh Quynh and Thang Nguyen Trong (Phenikaa University, Vietnam)
16:20 – 16:40	ST-MAP: Spatiotemporal Multimodal Alignment for Personality-Conditioned Humanoid Motion Synthesis	Montri Phothisonothai (Kasetsart University, Thailand)
16:40 – 17:00	Quantum Air-Writing: Wearable Wrist EMG Sensing with a Hybrid Quantum-Classical Convolutional Neural Network	Tien Truong Vo (Pham Van Dong University, Vietnam); Dau Ngoc Mai (Visionin Inc., South Korea); Jaeyeop Choi and Junghwan Oh (Pukyong National University, South Korea)

TRACK SIGNAL PROCESSING AND APPLICATIONS		
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	
Afternoon, Wednesday, July 29, 2026		
SP-1: Biomedical Signal Analytics **Time: 13:30 – 15:10** **Location: Hon Ong Room** **Session chair: TBD**		
Time	**Title**	**Authors**
13:30 – 13:50	Spatio-Temporal Feature Fusion via Light-weight Hybrid CNN-Transformers for Atrial Fibrillation Detection	Thi Minh Tuyen Huynh, Ha Thi Viet Nguyen (University of Electro-Communications, Japan); Huu-Thuan Huynh (Ho Chi Minh City - University of Science, Vietnam); Duc-Hung Le (University of Science, VNU-HCM, Vietnam); Cong-Kha Pham (University of Electro-Communications, Japan)
13:50 – 14:10	A Systematic Comparison of Dimensionality Reduction for Multi-Class Sleep Disorder Classification	Huy Quang Bui, Loc Quoc Tran, Minh Quang Tran (Hanoi University of Science and Technology, Vietnam); Tuan Hai Nguyen (DMED Medical Equipment Co., Ltd, Vietnam); Linh Chi Nguyen (Hanoi – Amsterdam High School for the Gifted, Hanoi, Vietnam); Cao Anh Luong (HUS High School for Gifted Students, Hanoi, Vietnam); Viet Dung Nguyen (Hanoi University of Science and Technology, Vietnam)
14:10 – 14:30	Enhancing Deep Wavelet ECG Denoising with Squeeze-and-Excitation Blocks	Ngoc-Son Nguyen, Thai-Duy Nguyen Huy, Minh-Tien Le and Huy-Dung Han (Hanoi University of Science and Technology, Vietnam); Tai Le (University of California Irvine, USA); Hung Cao (University of California, Irvine, USA)
14:30 – 14:50	LiWave: A Lightweight 1D Wavelet-Residual U-Net for ECG Signal Denoising	Ngoc-Son Nguyen, Duc Nguyen-Minh, Phi-Thuc Vo, Huy-Dung Han, Loan Pham-Nguyen (Hanoi University of Science and Technology, Vietnam); Tai Le (University of California Irvine, USA); Hung Cao (University of California, Irvine, USA)
14:50 – 15:10	LiWave: A Lightweight 1D Wavelet-Residual U-Net for ECG Signal Denoising	Ngoc-Son Nguyen and Trung-Kien Le (Hanoi University of Science and Technology, Vietnam); Tai Le (University of California Irvine, USA); Huy-Dung Han, Loan Pham-Nguyen (Hanoi University of Science and Technology, Vietnam); Hung Cao (University of California, Irvine, USA)
15:10 – 15:40	**Coffee Break & Poster Session 1 (30 minutes) – Posters in Signal Processing and Applications**	
SP-2: AI-Driven Medical Diagnostics and Healthcare Applications		

Time: 15:40 – 17:00
Location: Hon Ong Room
Session chair: TBD

Time	Title	Authors
15:40 – 16:00	Study on Photoacoustic Signal Power Spectrum Slope for Classification of Prostate Inflammation Section Samples	Tao Feng (Fudan University, China); Yunkai Zhu (Xinhua Hospital Affiliated to Shanghai Jiaotong University School of Medicine, China); Ying Li, Boyi Li and Dan Li (Fudan University, China); Yaqing Chen (Xinhua Hospital Affiliated to Shanghai Jiaotong University School of Medicine, China); Dean Ta (Fudan University, China)
16:00 – 16:20	Machine Learning Based 6-DoF Electromagnetic Localization for Wireless Capsule Endoscopy	Xuan Mai Nguyen, Van Luong Tran (Korea Institute of Science and Technology, South Korea); Trung Kien Nguyen, Nam Hoang Nguyen, Hong Hoang Si and Cuong Manh Hoang (Hanoi University of Science and Technology, Vietnam)
16:20 – 16:40	Cardiovascular Risk Assessment Based on Vascular Age Gap Using Stacking Ensemble Learning	Kim Phuong Tran and Duy Nguyen Tuan (Hanoi University of Science and Technology, Vietnam); Ha My Nguyen Ngoc (Hanoi-Amsterdam Highschool for the Gifted, Vietnam); Phuong Nguyen (Hwa Chong Institution, Singapore); Viet Dung Nguyen (Hanoi University of Science and Technology, Vietnam)
16:40 – 17:00	Edge AI-Based ECG Arrhythmia Detection Using CWT Scalograms and Optimized EfficientNet for Real-Time Inference	Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam); Xuan Thanh Ho, The Bach Nguyen, Minh An Luong and Minh-Hoang Le (Hanoi University of Science and Technology, Vietnam)

Morning, Thursday, July 30, 2026

SP-3: Human Interaction and Intelligent Perception
Time: 8:30 – 9:50
Location: Hon Ong Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	Short-Form Video Viewing Behavior Analysis and Multi-Step Viewing Time Prediction	Vu Thi Hai Yen (Hanoi University of Science and Technology, Vietnam); Duc V. Nguyen (Tohoku Institute of Technology, Japan); Huy Cao Anh Minh and Huong Thu Truong (Hanoi University of Science and Technology, Vietnam)
8:50 – 9:10	A Novel Dataset and Practical Deployment for Gesture-Based Human-Collaborative Robot Interaction	Ha-Anh Nguyen, An Thong Nguyen, Duy-Anh Doan, Viet Tung Nguyen, Thi-Lan Le (Hanoi University of Science and Technology, Vietnam)
9:10 – 9:30	Real-Time Depth-Aware Metadata Structuring for Robust Long-Range Traffic Perception in Low-Angle Surveillance Using SNR-Guided Geometric Gating	Nguyen Thi Thu Hien, Nguyen Viet Hung, Pham Hung Dung and Dzung Nguyen Tien (Hanoi University of Science and Technology, Vietnam)

9:30 – 9:50	Hybrid Spatial-Kinematic Learning for Robust Hand Gesture Recognition Under Transition Ambiguity	Tu Duong Vo, Minh An Luong, Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam); Minh-Hoang Le (Hanoi University of Science and Technology, Vietnam)
9:50 – 10:20	**Coffee Break & Poster Session 2 (30 minutes) – Posters in Communication Networks and Systems**	
SP-4: AI for Environmental and Industrial Monitoring **Time: 10:20 – 11:40** **Location: Hon Ong Room** **Session chair:** TBD		
Time	**Title**	**Authors**
10:20 – 10:40	Prior Knowledge-Driven Subdomain Adaptation Neural Network for Cross-Condition Pipeline Leak Size Prediction	Nguyen Duc Thuan (Hanoi University of Science and Technology, Vietnam); Jaeyoung Kim (Prognosis and Diagnostics Technologies Co., Ltd., Ulsan, South Korea); Jongmyon Kim (University of Ulsan, South Korea)
10:40 – 11:00	MP-MoE: Matrix Profile-Guided Mixture of Experts for Precipitation Forecasting	Huyen Ngoc Tran (Hanoi University of Science and Technology, Vietnam); Dung Trung Tran (VinUniversity, Vietnam); Hong Nguyen (University of Southern California, USA); Xuan Vu Phan and Nam-Phong Nguyen (Hanoi University of Science and Technology, Vietnam); Ngoc Vu (WeatherPlus Solution JSC, Vietnam)
11:00 – 11:20	MambaFloodLite: A Low-Parameter Mamba-Based Network for Flood Area Segmentation	Trong Thai Doan, Duc Thinh Dao, Thi Lan Huong Nguyen, Tuan Ninh Nguyen, Nguyen Thi Hue, Nam Hoang Nguyen, Hong Hoang Si, Nguyen Duc Thuan and Cuong Manh Hoang (Hanoi University of Science and Technology, Vietnam)
11:20 – 11:40	GLAFT-Net: A Global-Local Adaptive Fusion Network for Dynamic Canopy Height Mapping	Hai Lam Hoang, Chuc Man Duc and Thanh TN Nguyen (VNU University of Engineering and Technology, Vietnam)
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	
Afternoon, Thursday, July 30, 2026		
SP-5: Intelligent UAV Systems and Autonomous Navigation **Time: 13:30 – 15:10** **Location: Hon Ong Room** **Session chair: TBD**		
Time	**Title**	**Authors**

13:30 – 13:50	Real-Time Flight Control Firmware for Quadcopter UAVs Based on FreeRTOS with EKF-Based Attitude Estimation	Bao Nguyen Quoc, Duong Nguyen Canh, Dung Hoang Tuan, Manh Hoang Tran, Tan Nghia Duong and Phat Huu Nguyen (Hanoi University of Science and Technology, Vietnam); Takumi Miyoshi (Shibaura Institute of Technology, Japan)
13:50 – 14:10	Statistics-Aware Adaptive MPC Using Mahalanobis Distance for Path Tracking	Thanh-Tan Nguyen, Yu-Chen Lin (Feng Chia University, Taiwan)
14:10 – 14:30	Fault Diagnosis of Rotor Blades in Multirotor UAVs Using Fusion Multi-Domain Feature Extraction and Deep Neural Networks for Tabular Data (TabNet)	Duy Tan Le (International University VNU-HCM, Vietnam); Tuan Minh Le (RMIT, Vietnam); Van Binh Nguyen (International University, Vietnam); Long TonThat (International University HCMC, Vietnam); Son Vu Truong Dao (RMIT University Vietnam, Vietnam)
14:30 – 14:50	Navigation Methods for UAVs in GNSS-Denied Environments Using Artificial Intelligence	Nga Vu Quynh, Phat Huu Nguyen and Trong-Thanh Han (Hanoi University of Science and Technology, Vietnam)
14:50 – 15:10	Secure and Efficient UAV-Based Face Detection via Homomorphic Encryption and Edge Computing	Duc Van Nguyen (National Chung Cheng University, Taiwan); Manh Duc Bui (University of Technology Sydney, Australia); Quang-Trung Luu (CentraleSupélec, Université Paris-Saclay, France); Hoang Thai Dinh (University of Technology Sydney (UTS), Australia); Van-Linh Nguyen (National Chung Cheng University & College of Engineering, Taiwan); Diep N. Nguyen (University of Technology Sydney, Australia)
15:10 – 15:40	**Coffee Break & Poster Session 3 (30 minutes) – Posters in Electronic Systems, Microwave Engineering**	

SP-6: Advanced Signal Processing and Secure Communications
Time: 15:40 – 17:00
Room: TBD
Session chair: TBD

Time	Title	Authors
15:40 – 16:00	Data Acquisition Method for Compressive Sensing-Based Dynamic Resolution Single Pixel Camera	Vinh Ngoc Tran (VNU University of Engineering and Technology, Vietnam); Quyen Van Hoang (Vietnam National University Hanoi, Vietnam); Yoshio Hayasaki (Center for Optical Research and Education (CORE) Utsunomiya University, Japan); Hoang Quan Nguyen and Quang Duc Pham (University of Engineering and Technology & Hanoi Vietnam National University, Vietnam)
16:00 – 16:20	An Observer-Based Approach for Secure Image Transmission Using Block Compressed Sensing and High-Order Chaotic System	Ngan Thi Thu Nhu (International University, Vietnam); Duc-Tan Tran (Phenikaa University, Vietnam); Uyen Lap Phuong Nguyen and Lap Luat Nguyen (International University, Vietnam); Long TonThat (International University HCMC, Vietnam)
16:20 – 16:40	Toward Data-Efficient Partial Discharge Diagnosis: Scalogram-Driven Few-Shot Learning for Pulse Classification	Chi Duc Nguyen, Quoc Anh Pham, Duc Thinh Dao, Hong Hoang Si, Thi Lan Huong Nguyen and Cuong Manh Hoang (Hanoi University of Science and Technology, Vietnam)

16:40 – 17:00	Deep Reinforcement Learning-Optimized Re-configurable Intelligent Surfaces (RIS) for Joint Radar Sensing and Communication in USV Swarms	Minseok Han (Dept of Electronics and Control Engineering, South Korea); Nam Ha-Huu and Cuong Vo-Le (Hanoi University of Science and Technology, Vietnam)

SPECIAL SESSION ON DISTRIBUTED AI ACROSS EDGE-CLOUD CONTINUUM

Morning, Friday, July 31, 2026

SS - Distributed AI across Edge-Cloud Continuum
Time: 8:30 – 10:10
Location: Hon Ong Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	ChronoSC: Task-Oriented Semantic Communication via Temporal-to-Color Encoding	Phuc Hong Nguyen, Trung Thanh Nguyen and Quy Nghiep Duong (VinUniversity, Vietnam); Van-Dinh Nguyen (Trinity College Dublin, Ireland)
8:50 – 9:10	A Stay Cable Safety Predictor Enabling Edge Computing for IoT Systems	Quoc Minh V. Nguyen (University of Science - VNUHCM, Vietnam); Thai-Tuan Huynh, Minh-Chan Vo, Trong-Tu Bui, Duc-Hung Le and Trung-Khanh Le (University of Science, VNU-HCM, Vietnam)
9:10 – 9:30	Cross-Modalities Contrastive Learning for UAV-Based Waterfowl Monitoring	Nguyen Xuan Truong (Hung Yen University of Technology and Education, Vietnam); Minh-Anh Nguyen and Nguyen Duc Quang Anh (International School, Vietnam National University, Hanoi, Vietnam); Vu Xuan Thang (Hung Yen University of Technology and Education, Vietnam); Nguyen Van Thang (VNU - University of Engineering and Technology, Vietnam); Duc-Tan Tran (Phenikaa University, Vietnam); Khoa Dang Nguyen (International School, Vietnam National University, Hanoi, Vietnam)
9:30 – 9:50	When HTTP/3 Falls Behind: A System-Level Study of Tile-Based 360° Video Streaming	Huy Hoang Bui, Thanh Cong Tran, Thao Anh Tran, Mau Hoang Tung Le and Huong Thu Truong (Hanoi University of Science and Technology, Vietnam); Nguyen Viet Hung (East Asia University of Technology, Vietnam); Nam Pham Ngoc (VinUniversity, Vietnam)
9:50 – 10:10	Adversarial Attacks on Deep Learning Models in SDN-IoT Networks	Maxime Bossant, Tharindu Lakshan Yasarathna and Nhien-An Le-Khac (University College Dublin, Ireland)
10:10 –	**Coffee + Brunch**	

TRACK COMMUNICATION NETWORKS AND SYSTEMS

Morning, Thursday, July 30, 2026

CNS-1: Optical, Quantum and Future Communication Systems
Time: 8:30 – 9:50
Location: Hon Tre Room
Session chair: TBD

Time	Title	Authors
8:30 – 8:50	Real-Time FPGA-Based Adaptive Control for Robust FSO Quantum Key Distribution	Duong Nam Khanh, Minh Ngoc Han, Dao Dang Minh Hoang, Nguyen Anh Quan, Nguyen Thi Ngoc Linh and Huy-Dung Han, Phuong Xuan Quang (Hanoi University of Science and Technology, Vietnam); Yalçın Ata (OSTIM Technical University, Turkey); Ha Duyen Trung (Hanoi University of Science and Technology, Vietnam)
8:50 – 9:10	A Generalized Irradiance PDF for Optical Beam Propagation Through Multilayered Turbulent Media	Khac Tuan Nguyen (University of Ulsan, South Korea); Sunghwan Kim (Sejong University, South Korea)
9:10 – 9:30	Centralized Turbulence-Induced Group Secret-Key Distribution for FSO-Based Multi-UAV Networks	Nguyễn Thị Lệ Quyên and Dang Van Tuyen (Academy of Security Engineering and Technology, Vietnam); Luan Van Doan (The University of Aizu, Japan); Hoang Le (University of Aizu, Japan)
9:30 – 9:50	LiDAR-Assisted Beamforming Strategies for mmWave-Based 6G Vehicle-to-Infrastructure Links	Thang Van Pham (Hanoi University of Science and Technology, Vietnam); Huy T. Nguyen (Van Lang University, Vietnam); Nguyen Tien Hoa (Hanoi University of Science and Technology, Vietnam); Thi My Chinh Chu (Blekinge Institute of Technology, Sweden); Hans-Jürgen Zepernick (BTH, Sweden)
9:50 – 10:20	**Coffee Break & Poster Session 2 (30 minutes) – Posters in Communication Networks and Systems**	

CNS-2: Space-Air-Ground and Non-Terrestrial Communication Networks
Time: 10:20 – 12:00
Location: Hon Tre Room
Session chair: TBD

Time	Title	Authors
10:20 – 10:40	Mobility-Aware UEP Scheme for Video Streaming on Helicopters and UAVs	Shu Sum Law and Francis C Lau (The Hong Kong Polytechnic University, Hong Kong)

10:40 – 11:00	Performance of Transmit SNR Weighted K-Means Clustering in NOMA-Based FANETS	Thi My Chinh Chu and Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden); Alexander Westerhagen (Saabgroup, Sweden)
11:00 – 11:20	Queueing-Based Priority Delay Analysis for UAV-HAP Emergency Backhaul in NTN-Enabled 5G/6G Systems	Hung Tran (National Economics University, Vietnam & DATCOM Lab, Vietnam); Anh Nguyen Thi Mai (National Economics University, Vietnam); Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden); Tu Dac Ho (Norwegian University of Science and Technology, Norway & The Arctic University of Norway, Norway); Dinh-Hieu Tran (Universite Du Luxembourg, Luxembourg & SnT, Luxembourg)
11:20 – 11:40	DRL-Based Joint Beamforming and Surface Morphing for FIM-Enabled ISAC Systems	Hung T. Hoang and Nguyen Huy (Hanoi University of Science and Technology, Vietnam); Huy T. Nguyen (Van Lang University, Vietnam); Nguyen Tien Hoa (Hanoi University of Science and Technology, Vietnam); Thi My Chinh Chu (Blekinge Institute of Technology, Sweden); Hans-Jürgen Zepernick (BTH, Sweden)
11:40 – 12:00	Energy Minimization for UAV-Assisted Wireless Sensor Networks: A Novel Learning-Based Framework of Spiking Neural Network	Le Thanh Can, Hieu V. Nguyen, Mai T. P. Le and Vien Nguyen-Duy-Nhat (Danang University of Science and Technology, Vietnam)
12:00 – 13:30	**Lunch at *Feast* Restaurant (1st Floor)**	

Afternoon, Thursday, July 30, 2026

CNS-3: Advanced Wireless, Massive MIMO and 6G Systems
Time: 13:30 – 14:50
Location: Hon Tre Room
Session chair: TBD

Time	Title	Authors
13:30 – 13:50	SNN-TTFS-Based Channel Estimation for OFDM Systems in Low-SNR and Highly Dynamic Channels	Khuc Bang (Peter the Great St. Petersburg Polytechnic University, Russia); Thi-Hong-Tham Tran, Khoa-Sang Nguyen and Quang-Kien Trinh (Le Quy Don Technical University, Vietnam)
13:50 – 14:10	Joint Tx/Rx Antenna Selection and Beamforming Optimization for Multi-User Full-Duplex mMIMO	Yuanzhe Gong (McGill University, Canada); Cheng-Jie Zhao (The University of Hong Kong, Hong Kong); Tho Le-Ngoc (McGill University, Canada)
14:10 – 14:30	Curve-Fitting and DNN-Based Prediction of Near-Field Focal Depth and Gain Variation in Extra-Large Antenna Arrays	Yuanzhe Gong, Mohammadhossein Karimi and Tho Le-Ngoc (McGill University, Canada)

14:30 – 14:50	Asymmetric Spatial Modulation for Multiple Access in Near-Field MIMO Systems	Quynh Nhu Nguyen and Anh Hoang Do (Hanoi University of Science and Technology, Vietnam); Thai-Hoc Vu (VSB-Technical University of Ostrava, Czech Republic); Nguyen Tien Hoa (Hanoi University of Science and Technology, Vietnam)
14:50 – 15:10	Joint Task Offloading and Resource Orchestration in 6G SAGINs: A Hybrid Quantum-Inspired Meta-Heuristic Approach	Phuc Hao Do (Danang Architecture University, Vietnam); Truong Duy Dinh (Posts and Telecommunications Institute of Technology, Vietnam)
15:10 – 15:40	**Coffee Break & Poster Session 3 (30 minutes) – Posters in Electronic Systems, Microwave Engineering**	

CNS-4: UAV Communications and Intelligent Aerial Networks
Time: 15:40 – 17:20
Location: Hon Tre Room
Session chair: TBD

Time	Title	Authors
15:40 – 16:00	Hierarchical Deep Reinforcement Learning with Reward Shaping for Fixed-Wing Multi-UAV Trajectory Tracking and Collision Avoidance	Phuoc-Bao-Duy Nguyen and Tan-Luy Nguyen (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam)
16:00 – 16:20	Semantic-Aware Observation Optimization for Multi-UAV Traffic Monitoring with IDM-Based Behavior Modeling	Nguyen Anh, Nguyen Phu Cuong and Ha Duyen Trung (Hanoi University of Science and Technology, Vietnam); Zuxing Li and Chao Wang (Tongji University, China); Nguyen Huu Trung (Hanoi University of Science and Technology, Vietnam)
16:20 – 16:40	Urgency-Aware QoE-Driven UAV Trajectory Planning for Multi-Priority Post-Disaster Networks via Deep Reinforcement Learning	Zalita Phetxomphou, Hoang Le, Anh T. Pham (The University of Aizu, Japan)
16:40 – 17:00	Secrecy Energy Efficiency Maximization for UAV Swarm-Assisted Secure Communication Against an Aerial Eavesdropper via Deep Reinforcement Learning	Chunjia Tang (Shanghai University, China); Zhihong Lu (Yangzhou Marine Electronic Instrument Research Institute, China); Zhiyu Huang, Hongwen Yu and Zhichao Sheng (Shanghai University, China)
17:00 – 17:20	Joint Fragment Dissemination and Edge Fusion for Fast Target Detection in UAV-Assisted Urban IoT	An D Vu and Khanh-Van Nguyen (Hanoi University of Science and Technology, Vietnam)

Morning, Friday, July 31, 2026

CNS-5: Emerging Communication Systems and IoT Networks
Time: 8:30 – 9:50
Location: Hon Tre Room

Session chair: TBD		
Time	**Title**	**Authors**
8:30 – 8:50	From Concept to Prototype: Implementation and Analysis of a Low-Power AoA-Capable LoRaWAN Relay	Manh-Thao Nguyen, Vo Nguyen Thien Phuc, Thanh Tuan Phan (University of Information Technology, Vietnam); Van-Hieu Nguyen (Ho Chi Minh City University of Technology, Vietnam); Le Huy Trinh (University of Information and Technology & Vietnam National University, Vietnam); Fabien Ferrero (Université Cote d'Azur, CNRS, LEAT & CREMANT, France)
8:50 – 9:10	Maximizing the Downlink Sum Rate in Rotatable-Surface 6DMA-Assisted Multi-User Systems	Yiyi Chen, Hongwen Yu and Zhiyu Huang (Shanghai University, China); Zhen Sun (State Nuclear Power Plant Service Co., Ltd., China)
9:10 – 9:30	A Priority-Aware Medium Access Control with Adaptive Overlapping Backoff for IoT Sensor Networks	Nguyen Thi Thu-Hang, Pham Kim Kha and Hai-Chau Le (Posts and Telecommunications Institute of Technology, Vietnam)
9:30 – 9:50	Performance of Higher Order Ratio Modulation for Robust Molecular Communication Systems	Muskan Ahuja (South Asian University, New Delhi, India); Abhishek K Gupta (Indian Institute of Technology Kanpur, India); Reshma Rastogi (South Asian University, New Delhi, India)
9:50 – 10:20	**Coffee + Brunch**	
CNS-6: AI-Driven Networking and Cybersecurity **Time: 10:20 – 12:00** **Location: Hon Tre Room** **Session chair:** TBD		
Time	**Title**	**Authors**
10:20 – 10:40	Active Digital Twin Verification for Robust Federated Learning in IoT Intrusion Detection	Pham Hoang Hao, Phan The Duy and Van-Hau Pham (University of Information Technology, VNU-HCM, Vietnam)
10:40 – 11:00	SPDAE: A Structured Perturbation Denoising Autoencoder for Intrusion Detection	Cuong Nguyen and Quang Uy Nguyen (Le Quy Don Technical University, Vietnam)
11:00 – 11:20	A Hybrid WOA-GWO Approach for Robust Consensus Under DDoS Attacks in Clustered P2P Networks	Yifu Liu (Kyushu University, Japan); Dinh Hoa Nguyen (Hanoi University of Science and Technology, Vietnam & Kyushu University, Japan)
11:20 – 11:40	LP-WRR: Towards Adaptive Performance-Aware Load Balancing	Hải Thanh Phạm and Dang Hoang Nguyen (Hanoi University of Science and Technology, Vietnam); Nguyen Tuan Anh (Ha Noi University of Science and Technology, FPT Telecom International, Vietnam); Nguyen Tai Hung and Nguyen Huu Thanh (Hanoi University of Science and Technology, Vietnam)

11:40 – 12:00	Design, Implementation and Evaluation of an Edge-AI Cluster Architecture for Performance-Optimized AI Workloads	Huy An Tran, Huy Quang Tran and Cuong Truong (University of Information Technology & UIT, Vietnam)
12:00 – 12:20	ECS-Guard: Online Logit-Geometry Monitoring for Backdoor Defense in Split Learning	Duc Viet Ma, Thuong Bich Dao, Dung Tuan Tran, Dat Le Minh Nguyen, Nguyen Huu Thanh, Xuan Dung Nguyen and Huong Thu Truong (Hanoi University of Science and Technology, Vietnam)

POSTER SESSIONS

Afternoon, Wednesday, July 29, 2026

Poster Session - 1: Signal Processing and Applications

Time: 15:10 – 15:40
Location: Pre-function
Poster chairs: TBD

Time	Title	Authors
1	A Trajectory-Based Learning-from-Demonstration Method for Collaborative Robots Using Hand-Wrist Tracking	Anh Tuan Nguyen and Quang-Vinh Pham (SigM, SEEE, HUST, Vietnam); Viet-Duc Le and Viet Tung Nguyen (Hanoi University of Science and Technology, Vietnam); Thi-Lan Le (School of Electrical and Electronic Engineering (SEEE) HUST, Vietnam)
2	A Comprehensive Feature Engineering Method for Vessel Classification Using AIS Data	Huyen Tran and Quang Uy Nguyen (Le Quy Don Technical University, Vietnam)
3	A Hybrid Content-Based Movie Recommendation System via Tag Genome Refinement and LLM-Augmented Descriptions on MovieLens 20M	Nguyen Duc Manh, Vu Nguyen Bao Son, Ha Hai Van Le and Minh Tuyen Pham (Hanoi University of Science and Technology, Vietnam); Thi Thu Trang Pham (Hanoi Open University, Vietnam); Tan Nghia Duong (Hanoi University of Science and Technology, Vietnam)
4	Edge-AI Based Rice Disease Detection Using an Optimized YOLOv9 Model for Real-Time Mobile Applications	Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam); Nguyen Duc Dung Ta, Dong Cong Trinh, Thanh Dang Bui, Minh An Luong and Minh-Hoang Le (Hanoi University of Science and Technology, Vietnam)
5	ConvMixer Meets Mel Spectrogram: A Lightweight Framework for Vietnamese Speech Command Recognition	Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam); Ba Tuan Anh Chu, Minh An Luong, Minh-Hoang Le and Phuong C. Nguyen (Hanoi University of Science and Technology, Vietnam)
6	Automated Detection of Ovarian Papillary Projections in Ultrasound Images	Thu-Ha Nguyen and Hanh-Trang Bui (School of Electrical and Electronic Engineering, HUST, Vietnam); Thi-Loan Pham (Hai Duong University, Vietnam); Hong-Thien Dang (National Hospital of Obstetrics and Gynecology, Vietnam); Vu Hai (Ha Noi University of Science and Tenology, Vietnam); Thanh-Hai Tran (Hanoi University of Science and Technology, Vietnam)
7	Enhanced Transcranial Photoacoustic Imaging Using a Viscoelastic Wave Propagation Model	Hongyu Liu (Fudan University, China); Shijie Liang (Nanjing University of Science and Technology,China); Boyi Li, Chengcheng Liu, Ting Feng and Dean Ta (Fudan University, China)

8	Classification of Lumbar Multifidus Fatty Infiltration Using Learning-Based Ultrasound Image Feature Fusion Method	Chen Yiting (Shanghai Tech, China); Chao Zhang (The First Medical Center, General Hospital of Chinese PLA, China); Yuchong Gao (Shanghai Tech, China); Yi Mao (The First Medical Center, General Hospital of Chinese PLA, China); Tianyi Liang and Mingbo Zhang (The First Medical Center of Chinese PLA General Hospital, China); Rui Zheng (ShanghaiTech University, China)
9	A Trajectory-Based Learning-from-Demonstration Method for Collaborative Robots Using Hand-Wrist Tracking	Anh Tuan Nguyen and Quang-Vinh Pham (SigM, SEEE, HUST, Vietnam); Viet-Duc Le and Viet Tung Nguyen (Hanoi University of Science and Technology, Vietnam); Thi-Lan Le (School of Electrical and Electronic Engineering (SEEE) HUST, Vietnam)

Morning, Thursday, July 30, 2026

Poster Session - 2: Communication Networks and Systems

Time: 9:50 – 10:20
Location: Pre-function
Poster chair: TBD

Time	Title	Authors
1	A Hierarchical DTW-Based Clustering Framework for Efficient WiFi Fingerprinting Indoor Localization	Trung Vu-Thanh (Hunan University, China & School of Interdisciplinary Sciences and Arts, Vietnam National University, Hanoi, Vietnam); Jing He (Hunan University, China); Xuan Quang Truong (VNU School of Interdisciplinary Sciences and Arts, Vietnam National University, Vietnam); Lan Thi Chau Huynh, Ninh Duong-Bao and Khanh Nguyen-Huu (Ho Chi Minh City University of Industry and Trade, Vietnam)
2	VM Migration Control Considering Various Quality Requirements in Multi-Stage Information Processing System	Hayato Umeki (Nagoya, Japan); Yukinobu Fukushima (Okayama University, Japan); Celimuge Wu (The University of Electro-Communications, Japan); Yusheng Ji (National Institute of Informatics, Japan & Graduate University for Advanced Studies, Japan); Tutomu Murase (Nagoya University, Japan)
3	Evaluation of Nonlinear Distortion of RF Amplifiers for Full Duplex Networks	Moses Kasule, Djuradj Budimir (University of Westminster, UK)
4	Improving the 3-Dimension Visible Light Positioning System Between LED and Camera	Hieu Trung Do, Cuong Manh Hoang, Hong Hoang Si, Thi Lan Huong Nguyen, Dinh-Quan Nguyen, Nam Hoang Nguyen (Hanoi University of Science and Technology, Vietnam, Vietnam)
5	Hybrid 5G-IoT Communication Architectures for Large-Scale Precision Poultry Farming	Wai Yie Leong (INTI International University, Malaysia)

6	LoRaWAN-Based Distributed Sensor Networks for Real-Time Poultry House Environmental Monitoring	Wai Yie Leong (INTI International University, Malaysia)
7	Hybrid Machine Learning Model for Infrared Thermography Fault Diagnosis of Induction Motor	Bao Tran Quach (International University, Vietnam); Tuan Minh Le (RMIT, Vietnam); Duy Tan Le, Long TonThat (International University VNU-HCM, Vietnam); Pavel Potemkin (RMIT University, Australia); Son Vu Truong Dao (RMIT University Vietnam, Vietnam)
8	CAKE: Real-Time Action Detection via Motion Distillation and Background-Aware Contrastive Learning	Hieu Hoang (Hanoi University of Science and Technology, Vietnam); Dung Trung Tran (VinUniversity, Vietnam); Hong Nguyen (University of Southern California, USA); Nam-Phong Nguyen (Hanoi University of Science and Technology, Vietnam)
9	Optimized Split Federated Learning for YOLO11 Model on Resource-Constrained Edge Devices	Quy Huong Cao, Vu Hai (Hanoi University of Science and Technology, Vietnam)

Afternoon, Thursday, July 30, 2026

Poster Session - 3: Electronic Systems, Microwave Engineering

Time: 15:10 – 15: 40
Location: Pre-function
Poster chair: Dr. Cuong Manh Hoang (Hanoi University of Science and Technology, Vietnam)

Time	Title	Authors
1	Learning Feature-Based Adaptive GPS Weighting for LiDAR-IMU-GPS SLAM	Nguyen The Bao Danh, Hai Chi Ha, Thanh Huy Phung (Ho Chi Minh City University of Technology & VNU Ho Chi Minh City, Vietnam)
2	A Comparative Study of Feature Selection Paradigms for Machine Learning-Based Sepsis Diagnosis Using Immune-Related Gene Expression Profiles	Thanh-Thuy Tran, Nguyen Trinh, Hai-Chau Le (Posts and Telecommunications Institute of Technology, Vietnam)
3	A Non-Contact Ballistocardiogram-Based System with on-Chip Machine Learning for in-Home Patient Monitoring	Tien Truong Vo (Pham Van Dong University, Vietnam); Phuong Quy Le, Jaeyeop Choi and Junghwan Oh (Pukyong National University, South Korea)
4	A High-Gain 2.4 GHz Dual-Beam Antenna Array Using a Hadamard Matrix Beamforming Network	Quang Chinh Chu, Thanh Long Nguyen, Quoc Cuong Nguyen, Thuy Minh Le (Hanoi University of Science and Technology, Vietnam)

5	An Edge-Based Real-Time Individual Tracking System Using Networked mmWave Radar Nodes	Nguyen Vu Thanh Lam, Le Phan Gia Nghiem and Ho Khanh Linh, Tuan Do-Hong (Ho Chi Minh City University of Technology, Vietnam)
6	A Broadband Printed Dipole Antenna with Stable Flat-Top Radiation for Microwave Power Transmission	Danh Manh Nguyen (VinUniversity, Vietnam); The-Anh Le-Xuan (Soongsil University, South Korea); An Minh Tran, Dang-An Nguyen and Cuong Do (VinUniversity, Vietnam); Huy-Dung Han (Hanoi University of Science and Technology, Vietnam); Van-Dinh Nguyen (Trinity College Dublin, Ireland)
7	Design of a Novel Wideband Magic Tee and Monopulse Comparator Using a Stepped Impedance Matching Structure for Tracking Systems	Tuan-Anh Le Trong, Huan Van Tran, Quyet Nguyen Manh, Tung Duong Thanh, Son Van Hoang, Huan Van Dang (Viettel Group, Vietnam & Viettel Aerospace Institute, Vietnam)
8	A Robust Adaptive Integral Sliding Mode Control Strategy for Load Frequency Control in Wind-Integrated Multi-Area Power Systems	Phong Thanh Tran (Physics and Engineering Physics, Vietnam & University of Science, Vietnam); Tuan Van Huynh (VNUHCM - University of Science, Vietnam); Phuc Thien Nguyen (University of Science, Vietnam); Dieu Vo (Ho Chi Minh City University of Technology, Vietnam)
9	A Sensorless Predictive Torque Control Strategy for Induction Motor Drives	Van Quang Binh Ngo (Hue University of Education, Vietnam); Khanh-Quang Nguyen and Kim-Anh Nguyen (University of Science and Technology, Vietnam); Pham Viet Tuan (Hue University & University of Education, Vietnam)