2025 24TH INTERNATIONAL SYMPOSIUM ON COMMUNICATIONS AND INFORMATION TECHNOLOGIES

16-18 October, 2025
Hanoi, Vietnam

ISCIT 2025

PROGRAM BOOKLET

VIETNAM NATIONAL UNIVERSITY, HANOI - INFORMATION TECHNOLOGY INSTITUTE

Preface

Warmly welcome to the 2025 24th International Symposium on Communications and Information Technologies (ISCIT 2025)!

It is our great pleasure to present the program and proceedings of the 24th International Symposium on Communications and Information Technologies (ISCIT 2025), held from October 16 to 18, 2025, in Hanoi, Vietnam. The symposium is organized by the IEEE Circuits and Systems (CAS) Vietnam Chapter and hosted by the Information Technology Institute – Vietnam National University, Hanoi (VNU-ITI), with technical support from the IEEE Solid-State Circuits Society (SSCS) Vietnam Chapter and the IEICE Vietnam Section.

Since its inception, ISCIT has provided an international forum for researchers, engineers, and practitioners to exchange ideas, discuss research results, and present the latest innovations in communications and information technologies. Continuing this tradition, ISCIT 2025 focuses on the convergence of advanced circuits and systems, communications, and information technologies, which together are driving breakthroughs in hardware accelerators for AI, brain-machine interfaces, low-power VLSI design, neuromorphic computing, IoT and wearable devices, and 5G/6G communication systems.

This year's symposium brings together a diverse community of scholars and professionals from academia and industry to explore emerging challenges and opportunities in integrating artificial intelligence with communication and computing systems. The ISCIT 2025 conference received 127 submissions, and only 72 papers have been selected for presentation at an acceptance rate of 56%. In addition, the conference has four keynotes and an invited talk from the leading researchers in the field. We believe the papers presented in this volume reflect the depth, diversity, and innovation of ongoing research in these areas and will inspire future collaboration and advancement.

We would like to express our sincere gratitude to all keynote/invited speakers, authors for their valuable contributions, to the reviewers for their thoughtful and constructive evaluations, and to the organizing committees and supporting institutions for their dedication and hard work in making ISCIT 2025 a success. In addition, we sincerely appreciate the financial sponsors, Vingroup Innovation Foundation (VINIF - VINBIGDATA) and Marvell Corporate.

We hope that you will find your participation rewarding and your stay in Hanoi enjoyable.

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Keynote Speakers

Mojtaba Mahdavi
Ericsson Research, Sweden

Low-Complexity Hardware Solutions for Baseband Algorithms in Massive MIMO Systems

(8:15 - 9:00, October 16)

Abstract: As mobile communication systems have evolved through five generations, we have witnessed an exponential increase in data rates, network capacity, and computational demands—trends that are expected to accelerate with the emergence of 6G. This growth is driven by an explosion in connected devices, vast data volumes, and the increasing need for ultra-high throughput, low latency, and enhanced reliability. Moreover, emerging applications such as virtual reality (VR), autonomous vehicles, smart cities, and e-health are imposing even stricter performance requirements for future wireless networks.

Central to the 5G standard is the adoption of massive multiple-input multiple-output (MIMO) technology, which equips base stations with a large number of antennas to serve multiple users simultaneously on the same frequency-time resources. While massive MIMO significantly enhances spectral efficiency and network performance, it also introduces significant computational complexity and memory overhead—primarily due to the need to process and store high-dimensional matrices such as channel state information (CSI). Meeting these challenges is becoming increasingly difficult for conventional digital baseband processors, which face limitations from the slowing of Moore's Law, constrained memory bandwidth, and energy-intensive data transfers between memory and compute units. These issues hinder the scalability and efficiency of next-generation 6G systems.

This keynote will explore hardware-efficient and low-complexity approaches for implementing baseband signal processing algorithms, focusing on novel computing paradigms that move beyond traditional architectures. In particular, it will highlight the potential of in-memory computing (IMC) as a promising solution to alleviate memory bottlenecks and reduce power consumption. Using practical examples from baseband processing, we will demonstrate how IMC-based architectures can help reshape the future of wireless signal processing and pave the way for realizing the full capabilities of 5G and 6G networks.

Biography: Mojtaba Mahdavi received his M.Sc. degree in Electrical Engineering from Sharif University of Technology, Tehran, Iran, in 2010, and his Ph.D. in Electrical and Information Technology (EIT) from Lund University, Sweden, in 2021. His Ph.D. research focused on baseband processing for 5G and beyond, specifically on algorithms, VLSI architectures, and co-design for next-generation wireless communication systems. In 2020, he was a Visiting Researcher at the Division of Microelectronic Systems Design at the University of Kaiserslautern, Germany. In 2021, Mojtaba joined Ericsson Research in Lund, Sweden, where he currently works as a Senior Researcher in the Device Platform Research group. He has authored several patent applications, as well as journal and conference papers, with a particular emphasis on the hardware implementation of algorithms and architectures for wireless communication systems.

Quang-Dam Le
General Director,
Marvell, Vietnam

Marvell's Accelerated Infrastructure for AI Data Center

(9:00 - 9:30, October 16)

Abstract: This presentation explores Marvell's Accelerated Infrastructure for AI, featuring cutting-edge solutions that redefine data center infrastructure with custom compute offerings, including AI inference accelerators, as well as advanced interconnects like 3D SiPho engines and Teralynx 10 51.2T products. These solutions enable high-bandwidth connectivity, low power, low latency, and reliable data movement, leveraging technologies such as PAM4 DSPs (Alaska 1.6T, Nova, and Spica), PCIe Retimers (Alaska PCIe Gen 6 and Gen 7 SerDes), Ethernet Network Switches (Teralynx), and Compute Express Link (CXL) Devices. A brief overview of advanced package technology will also be described to demonstrate how the state-of-the-art Integrated Circuit (IC) can be designed. We highlight our partnerships with industry leaders like NVIDIA, AMD, and Micron, driving innovation and ecosystem expansion, as well as our UALink scale-up solution for efficient AI infrastructure scaling. A glance at Marvell Vietnam, the third largest R&D center of global Marvell, quickly demonstrates its important role in Marvell's strategy for the future of AI infrastructure and data center technology.

Biography: Lê Quang Đạm (nicknamed QD) joined Marvell in 2011, holding various positions, including Technical Director, Senior Director, and Associate Vice President, before becoming the General Director of Marvell Technology Vietnam. He graduated with a Bachelor of Science (B.Sc.) degree from Ho Chi Minh City University of Science (HCMUS) in 1988, a Master (MSc.) degree in Physics in Canada in 1993, and a Doctorate (Ph.D.) degree in Signal Processing (Artificial Intelligence) in Canada in 1996, before starting his career in the semiconductor industry.

QD began his career as an algorithm designer for all Digital Signal Processing (DSP) IPs for Miranda Technologies, thereafter Gennum Corporation as Senior Video System Architect, and went on to join ATI Technologies Inc (acquired later by Advanced Micro Devices - AMD) as Senior Manager to manage the DSP teams, responsible for Markham (Canada), Bangalore (India), Shanghai (China) and Munich (Germany). Just prior to Marvell, he was a Senior Principal Scientist with Broadcom. He has a strong interest in System Architecture, Signal Processing, and Artificial Intelligence.

Andrew Zhang
University of Technology Sydney

Bi-static Sensing in 6G Perceptive Mobile Networks

(9:45 - 10:15, October 16)

Abstract: Empowered by integrated sensing and communication (ISAC) technologies, 6G Perceptive Mobile Network (PMN) is expected to offer ubiquitous sensing capability, leveraging the communications infrastructure. Bi-static sensing can bypass the stringent full-duplex requirement in mono-static sensing and is more practical for (near-term) implementation. Clock asynchronism, which naturally exists between spatially separated communication nodes, is a central and challenging problem in bi-static sensing. It can cause ranging ambiguity and prevent coherent processing of (discontinuous) measurements (e.g., for Doppler frequency estimation). Should it be resolved, sensing can be efficiently realised in communication networks, requiring little network infrastructure and hardware changes.

This talk delves into advanced techniques for addressing the clock asynchronism challenge in the integration, with a particular focus on efficient solutions requiring only a single receiver. First, this issue will be introduced in the context of 6G perceptive mobile networks. Following this, a comprehensive review will be provided for the latest single-receiver-based solutions, applicable to both multi-antenna and single-antenna configurations. Additionally, I will showcase our cutting-edge sensing applications developed using these techniques, including moving object tracking, localization, and environmental sensing, including rainfall and water level detection. The talk concludes by highlighting unresolved challenges and exploring future research directions in this evolving field.

Biography: Dr J. Andrew Zhang (M'04-SM'11) is a Professor in the School of Electrical and Data Engineering, University of Technology Sydney, Australia. His research interests are in the area of signal processing for wireless communications and sensing. Prof. Zhang has published more than 300 papers in leading Journals and conference proceedings, and has won 7 best paper awards, including the prestigious 2024 IEEE SPS Donald G. Fink Overview Paper Award. He is a recipient of CSIRO Chairman's Medal and the Australian Engineering Innovation Award in 2012 for exceptional research achievements in multi-gigabit wireless communications.

Prof. Zhang is one of the pioneer researchers in integrated sensing and communications (ISAC). He initiated the concept of perceptive mobile network, by defining its system framework and demonstrating its feasibility in a set of papers back in 2017. He has since published 60+ ISAC journal papers, including two highly cited papers, and played a foundational role in shaping global ISAC research. His work has been widely cited (7500+ citations on Google Scholar since 2020, mostly on ISAC) and has influenced 6G ISAC standardisation efforts. He has led or contributed to eight ISAC-related projects, securing over $7.5 million in competitive funding. He co-established a joint Network Sensing Lab with TPG, the third-largest mobile operator in Australia, focusing on real-world deployment of ISAC technology in mobile networks. Prof. Zhang co-organized a number of ISAC workshops at leading conferences and special issues in leading IEEE journals. He has delivered ISAC tutorials in WCNC 2021, ICC 2021, ICC 2022, and IEEE Radar 2024, and numerous keynotes and invited talks. For details of his ISAC research, please refer to https://sites.google.com/view/andrewzhang/.

Massimo Alioto
National University of Singapore

AI with Attentive Intelligence (AI²) – Enabling Physical Monitoring without Physical Boundaries

(8:30 -9:15, October 17)

Abstract: Next-generation AI will be predictive, proactive and agentic, anticipating needs and necessary actions based on context rather than waiting for instructions. This requires tight cooperation of sensing and intelligence, and a hence new generation of sensory intelligence at the edge for always-on monitoring (e.g., surveillance, assistive technologies, security). Indeed, it is now well understood that highly-distributed AI outside the cloud is a necessity in view of the infeasibility of raw data transmission to the cloud, latency challenges, data deluge and network bottleneck, high consumption of continuous wireless streaming, and privacy sensitivities.

As a remarkable convergence, highly-distributed AI will also help address the daunting challenge posed by the ludicrously high levels of power consumption that next-generation datacenters are expected to require. In this talk, intriguing trends and brand new technologies from our Green IC group at NUS are illustrated to show how (incredibly) pervasive AI can be, while simultaneously addressing environmental and energy sustainability challenges. Several enabling silicon chip technologies for sensory intelligence and AI will be discussed, sharing the latest disruptive innovation in applications such as monitoring, surveillance, security and context awareness. Everywhere and continuously, with no physical boundaries

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Biography: Massimo Alioto is Provost's Chair Professor at the ECE Department of the National University of Singapore, where he leads the Green IC group, the Integrated Circuits and Embedded Systems area, and the FD-fAbrICS center on intelligent&connected systems. Previously, he held positions at the University of Siena, Intel Labs – CRL (2013), University of Michigan - Ann Arbor (2011-2012), University of California – Berkeley (2009-2011), EPFL – Lausanne.

He is (co)author of 400 publications on journals and conference proceedings, and four books with Springer (with two more coming). His primary research interests include ultra-low power and self-powered systems, green computing, circuits for machine intelligence, hardware security, and emerging technologies.

He was the Editor in Chief of the IEEE Transactions on VLSI Systems and Deputy Editor in Chief of the IEEE Journal on Emerging and Selected Topics in Circuits and Systems. He was the Chair of the Distinguished Lecturer Program for the IEEE CAS Society, and was a Distinguished Lecturer for the SSC and CAS Society. Previously, Prof. Alioto was the Chair of the "VLSI Systems and Applications" Technical Committee of the IEEE Circuits and Systems Society (2010-2012). He served as Guest Editor of numerous journal special issues (JSSC, TCAS-I, JETCAS…), Technical Program Chair of several IEEE conferences (ISCAS, SOCC, PRIME, ICECS), and TPC member (ISSCC, ASSCC). His research group contribution has been recognized through various best paper awards (e.g., ISSCC), and in the ten technological highlights of the TSMC annual report, among the others. Prof. Alioto is an IEEE Fellow.

CASS Distinguished Talk

Harikrishnan Ramiah
Universiti Malaya, Malaysia

Boosting Energy Harvesting Efficiency: Innovations in CMOS Rectifier Techniques for Enhanced Power Conversion, Sensitivity, and Dynamic Range

(13:00 - 15:30, October 16)

Abstract: The increasing adoption of large-scale IoT networks and the saturation of ambient Radio Frequencies (RF) signals have made ambient RF Energy Harvesting (RFEH) a compelling solution for powering low-energy electronics. As manufacturers seek alternatives to battery-dependent systems, ambient RFEH offers a scalable and maintenance-free energy source. This presentation introduces the motivation behind the growing interest in ambient RFEH, its potential applications across various domains and the current limitations of existing works. To address these limitations, our lab has developed a series of enhanced rectifier techniques incorporating Gate Biasing, Body Biasing, Hybrid Biasing, and Reconfigurable designs which aim to improve harvesting efficiency across a wider range of operating conditions and input power levels. The effectiveness of these techniques are demonstrated with experimental results and design insights. The presentation concludes with a summary of our contributions and a discussion on future directions.

Biography: Prof. Ir. Dr. Harikrishnan Ramiah (Senior Member, IEEE) graduated with his Ph.D. degree in electrical and electronic engineering, in the field of analog and digital IC design.

Prof. Ramiah held the position of Senior IC Designer for 3 years at SiresLabs Sdn. Bhd, Cyberjaya, ending in 2003, with a transfer to Intel Technology, Sdn. Bhd, Penang, as Senior Component Design Manager for the 5 years following. Currently he is a Professor in the Department of Electrical Engineering, University of Malaya, Kuala Lumpur, Malaysia, working in the area of Analog IC Design, RF integrated circuit (RFIC), Power Management IC design and RF energy harvesting circuit design. He leads as head of the Center of Research Industry 4.0 (CRI 4.0) and the Analog, Digital, and RF Research Group (UMIC), at University of Malaya. During this period, he has authored or coauthored several articles in distinguished technical publications with much of his research output reported in highly reputable IEEE Transactions. Prof. Ramiah was the first from Malaysia in the field of Power Management IC Design, to be appointed Distinguished Lecture Presenter (DLP) by the IEEE Circuits and Systems Society, in the 75 years since its inception.

He was a recipient of the Intel Fellowship Grant Award from 2000 to 2008 and has since received continuous international research funding in recognition of his work, from 2014 to 2025, such as the Motorola Foundation Grant. His active collaborative industry networks include Motorola Solutions, Infineon R&D, Nexperia R&D and Infinecs Systems, who provide relevant industrial insights for his research team

Program at a Glance

Venue: Jonathan KS. Choi Cultural Center
Vietnam National University, Hanoi

Day 1: Thursday, October 16, 2025		
8:00 AM	**Opening Session**	
8:15 AM - 9:30 AM	**Plenary session** **Keynote #1: Low-Complexity Hardware Solutions for Baseband Algorithms in Massive MIMO Systems** Mojtaba Mahdavi, Ericsson Research, Sweden **Keynote #2: Marvell's Accelerated Infrastructure for AI Data Center** Quang-Dam Le, General Director, Marvell, Vietnam Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Xuan-Tu Tran (VNU, Vietnam) & Ke Wang (RMIT, Australia)	
9:30 AM	Tea Break (15 minutes)	
9:45 AM- 11:45 AM	**Keynote #3: Bi-static Sensing in 6G Perceptive Mobile Networks** Andrew Zhang, University of Technology Sydney, Australia **Session #1 Next-Generation Network (NGN)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Duy-Hieu Bui (VNU-ITI, Vietnam) & Hiroshi Ochi (Kyutech, Japan)	
11:45 AM	Lunch	
1:00 PM - 3:30 PM	**Session #2: Security and Privacy Technologies (SPT)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Manh-Hiep Dao (VNU-ITI, Vietnam) & Duy-Hieu Bui (VNU-ITI, Vietnam)	**IEEE CASS Distinguished Talk** Venue: Room 505, Building E3, Vietnam National University Hanoi Chairs: Duc-Tho Mai (ACT, Vietnam)
3:30 PM	Tea Break (15 minutes)	
3:45 PM - 5:45 PM	**Session #3: Circuits and Systems I (CAS-I)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Orazio Aiello (UniGE, Italy) & Minh-Thuy Le (HUST, Vietnam)	
5:45 PM	**Banquet** *(a shuttle bus will pick you up at the conference venue)* Location: JW Marriott hotel Address: 8 Do Duc Duc, Nam Tu Liem, Hanoi	

Day 2: Friday, October 17, 2025		
8:30 AM - 9:15 AM	**Keynote #4: AI with Attentive Intelligence (AI^2) – Enabling Physical Monitoring without Physical Boundaries** Massimo Alioto, National University of Singapore Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Duy-Hieu Bui (VNU, Vietnam) & Khanh N. Dang (UoA, Japan)	
9:15 AM	Tea Break (15 minutes)	
9:30 AM - 12:00 AM	**Session #4: Signal Processing And Machine Learning (SPML)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Quang-Kien Trinh (LQDTU, Vietnam)	Session #5: AI for Computer Vision (AICV) Venue: Room 505, Building E3, Vietnam National University Hanoi Chairs: Le Hoang Son (VNU-ITI, Vietnam)
12:00 AM	Lunch	
1:00 PM - 2:30 PM	**Session #6: Wireless Communication (WiC)**Venue: Room Ha Long, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Anh-Tuyen Le (UTS, Australia)	Session #7: Artificial Intelligence for Communications and IT (AI4C-I)Venue: Room 505, Building E3, Vietnam National University Hanoi Chairs: Duc-Tho Mai (ACT, Vietnam)
2:30 PM	Tea Break (15 minutes)	
2:45 PM - 4:00 PM	**Session #8: Artificial Intelligence for Communications and IT (AI4C-II)** Venue: Room Ha Long, Jonathan KS Choi Center, VNU Hanoi Chairs: Thai-Viet Dang (HUST)	Session #9: Circuits and Systems (CAS-II) Venue: Room 505, Building E3, VNU Hanoi Chairs: Duy-Hieu Bui (VNU-ITI, Vietnam)
4:00 PM	Tea Break (15 minutes)	
4:15 PM - 5:45 PM	**Session #10: Artificial Intelligence for Communications and IT (AI4C-III)** Venue: Room Ha Long, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Xuan-Tu Tran (VNU, Vietnam)	
5:45 PM	Closing session	

Day 3: Saturday, October 18, 2025

Social Event: Hanoi Old Quarter guided tours *(advanced registration before October 17 required)*

Technical Program

Electronic version: https://iscit2025.org/program/technical

Thursday, October 16, 2025

Day 1: Thursday, October 16, 2025				
8:00 AM - 9:45 AM	**Plenary session** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Xuan-Tu Tran (VNU, Vietnam) & Ke Wang (RMIT, Australia)			
Time		Title	Authors	Type
8:00 AM	-	Opening session		
8:15 AM	Keynote #1	Low-Complexity Hardware Solutions for Baseband Algorithms in Massive MIMO Systems	Mojtaba Mahdavi, Ericsson Research, Sweden	Keynote
9:00 AM	Keynote #2	Marvell's Accelerated Infrastructure for AI Data Center	Quang-Dam Le, General Director, Marvell, Vietnam	Keynote
9:30 AM	Tea break			
9:45 AM-11:45 AM	**Session #1: Next-Generation Network** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Duy-Hieu Bui (VNU-ITI, Vietnam) & Hiroshi Ochi (Kyutech, Japan)			
Time	Paper #	Title	Authors	Type
9:45 AM	Keynote #3	Bi-static Sensing in 6G Perceptive Mobile Networks	Andrew Zhang, University of Technology Sydney	Invited
10:15 AM	1571169336	MetaContrast-GNN: Meta-Contrastive Learning for Cross-City Travel Time Estimation	Thanh Thai Do and Quang Tran Minh (Hochiminh City University of Technology, Vietnam)	Oral

10:30 AM	1571169321	Adaptive Traffic Signal Control for Urban Intersections Using Riccati-Based Linear Quadratic Regulator Enhanced by LSTM-Based Traffic Flow Prediction	Thanh Thai Do and Quang Tran Minh (Hochiminh City University of Technology, Vietnam)	Oral
10:45 AM	1571180927	Hybrid Feature Fused Few-Shot Learning for CSI-Based Adaptive Beam Prediction	Chaiyawut Thiangkate (Kasetsart University, Thailand); Shimpei Nishiyama, Dipanita Chakraborty and Minoru Okada (Nara Institute of Science and Technology, Japan); Kundjanasith Thonglek, Pattara Leelaprute, Arnon Rungsawang and Bundit Manaskasemsak (Kasetsart University, Thailand); Kosin Chamnongthai (King Mongkut's University of Technology Thonburi, Thailand)	Oral
11:00 AM	1571187147	Design and Comparison of Beamforming Algorithms for Integrated Sensing and Communication	Zhequn Mao (China); Sun Songlin and Lingyu Shi (Beijing University of Posts and Telecommunications, China)	Oral
11:15 AM	1571171503	Precoded STBC with Beamforming for Secure Next-Generation Networks	Cong-Hoang Diem (Vietnam National University, Hanoi (VNU), Vietnam); Duc-Tho Mai (Academy of Cryptography Techniques, Vietnam)	Oral
11:30 AM	1571178320	Max-Min Rate Optimization for Reconfigurable Intelligent Surfaces Aided ISAC Systems	Huy T. Nguyen (Van Lang University, Vietnam); Nhan Nguyen (University of Oulu, Finland); Nguyen Cong Luong (Phenikaa University, Vietnam); Tri-Hai Nguyen and Vo Nguyen Quoc Bao (Van Lang University, Vietnam)	Oral
11:45 AM	Lunch			
1:00 PM - 2:30 PM	CASS DL Talk: Boosting Energy Harvesting Efficiency: Innovations in CMOS Rectifier Techniques for Enhanced Power Conversion, Sensitivity, and Dynamic Range Harikrishnan Ramiah, Universiti Malaya, Malaysia Venue: Room 505, Building E3, Vietnam National University Hanoi Chairs: Duc-Tho Mai (ACT, Vietnam)			
1:00 PM - 3:30 PM	**Session #2: Security and Privacy Technologies (SPT)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Manh-Hiep Dao (VNU-ITI, Vietnam) & Duy-Hieu Bui (VNU-ITI, Vietnam)			
Time	Paper #	Title	Authors	Type

1:00 PM	1571167315	Lotus: a Hybrid Cross-Chain Framework for Privacy-Preserving Digital Identity	Tuan-Dung Tran and Huynh Phan Gia Bao (University of Information Technology, VNU-HCM, Vietnam); Tra Minh Trong (University of Information Technology, Vietnam & VNU-HCM, Vietnam); Nguyen Tan Cam (University of Information Technology & Vietnam National University Ho Chi Minh City, Vietnam); Van-Hau Pham (University of Information Technology, Vietnam)	Oral
1:15 PM	1571170382	Vision-Based Learning for Cyberattack Detection in Blockchain Smart Contracts and Transactions	Do Hai Son (Curtin University, Australia); Hieu Vu Le (VNU University of Engineering and Technology, Vietnam); Viet Khoa Tran and Yibeltal Fantahun Alem (University of Canberra, Australia); Trong-Minh Hoang (Posts and Telecommunications Institute of Technology, Vietnam); Tran Thi Thuy Quynh (VNU University of Engineering and Technology, Vietnam); Nguyen Viet Ha (VNU Ha Noi, Vietnam); Nguyen Linh Trung (Vietnam National University, Hanoi, Vietnam)	Oral
1:30 PM	1571170579	Federated Learning for Phishing Detection and Protection in Wearable Health Networks	Mosiur Rahaman (Asia University, Taiwan & International Center for AI and Cyber Security Research and Innovations, Taiwan); Karthik Vanna (Veltech University, Chennai, India); Akshat Gaurav (Asia University, Taiwan); Sunneng Sandino Berutu (Universitas Kristen Immanuel Yogyakarta, Indonesia); Nadia Nedjah (State University of Rio de Janeiro, Brazil); Kwok Tai Chui (Hong Kong Metropolitan University, Hong Kong); Brij Gupta (NIT Kurukshetra, India)	Oral
1:45 PM	1571178625	Blockchain-Enabled Secure Digital Image Ownership and Verification: a Novel Approach to Prevent NFT Fraud and Duplicate Images	Luong Tien Trinh (Institute of Information Technolory and Electronics, Vietnam); Thanh Ta Minh (Le Quy Don Technical University, Vietnam)	Oral
2:00 PM	1571179701	Design of Software-Defined Wireless Network for Machine Learning-Driven DDoS Detection and Tiered Response	Aung Myo Htut (King Mongkut's University of Technology Thonburi, Thailand); Sirawich Pongraweewongsa, Sudichai Suktan, Witchayut Tangwongkitsiri, Nisachon Sillapawongsa, Patchapong Kulthumrongkul and Chaodit Aswakul (Chulalongkorn University, Thailand)	Oral
2:15 PM	1571179244	A Multi-Source Feature Fusion-Based Knowledge Graph Construction from Cyber Threat Intelligence to Facilitate APT Attribution in IDS	To Thi My Au (University of Information Technology, Vietnam); Khanh-Khoa Ngo (University of Information Technology, VNU-HCM, Vietnam); Van-Hau Pham (University of Information	Oral

			Technology, Vietnam); Phan The Duy (University of Information Technology, VNU-HCM, Vietnam)	
2:30 PM	1571179922	Multimodal Fusion for Smart Contract Vulnerability Detection: An Experimental Dive	Giang Huynh Le (University of Information Technology, Vietnam & Inseclab, Vietnam); Huu-Han Nguyen and Hung Van Thai (University of Information Technology, Vietnam); Doan Minh Trung and Phan The Duy (University of Information Technology, VNU-HCM, Vietnam)	Oral
2:45 PM	1571179943	VulForge: An Automatic Script Generation Framework for Vulnerability Deployment in Honeypots Using Large Language Models	Le Tuan Anh, Hien Do Hoang and Phan The Duy (University of Information Technology, VNU-HCM, Vietnam); Nguyen Tan Cam (University of Information Technology & Vietnam National University Ho Chi Minh City, Vietnam); Van-Hau Pham (University of Information Technology, Vietnam)	Oral
3:00 PM	1571180909	Brute Force Attack Detection in SDN Using Hybrid Approximate Nearest Neighbors and LSH-Based Attention Model	Akshat Gaurav (Asia University, Taiwan); Varsha Arya (Hong Kong Metropolitan University (HKMU), Hong Kong); Shavi Bansal (Insights2Techinfo, India); Kwok Tai Chui (Hong Kong Metropolitan University, Hong Kong); Brij B. Gupta (Asia University, Taiwan)	Oral
3:15 PM	1571180818	A Novel ASCON ECB with 64-Bit Block Size for Energy-Harvesting Beat Sensors	Anh-Duc Mai (Vietnam National University Hanoi, Vietnam); Xuan-Tu Tran (VIetnam National University, Hanoi, Vietnam); Duy-Hieu Bui (Vietnam National University, Hanoi, Vietnam); Koichiro Ishibashi (The University of Electro-Communications, Japan)	Oral
3:30 PM	Tea break			
3:45 PM - 5:45 PM	**Session #3: Circuits and Systems II (CAS-I)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Orazio Aiello (UniGE, Italy) & Minh-Thuy Le (HUST, Vietnam)			
Time	Paper #	Title	Authors	Type
3:45 PM	1571167534	A 6-14 Gb/s Single-Loop Referenceless CDR Without Separate FD	Tho Huu Nguyen, Hai Thanh Mai and Quang Nguyen-The (Le Quy Don Technical University, Vietnam); Luan Le (Academy of Military Science and Technology, Vietnam); Vu Hoang Yen (Le Quy Don Technical University, Vietnam)	Oral

4:00 PM	1571170213	Dual-SPAD-Based High-Speed Quantum Random Number Generator Utilizing QRFF Architecture	Dinh Quoc Bao Tran (Chungbuk National University, Korea (South) & ChungBuk National University, Korea (South)); Van Truong Nguyen (Chungbuk National University, Korea (South)); Trung-Tien Hoang and Huy-Hoang Nguyen (Hanoi University of Science and Technology, Vietnam); Loan Pham-Nguyen (Hanoi University of Science and Technology & School of Electronics and Telecommunications, Vietnam); Jong-Phil Hong (Chungbuk National University, Korea (South))	Oral
4:15 AM	1571171751	Down-Conversion RF Mixer Utilizing Charge Injection Technique for 5G Application	Tung Thanh Mai and Long Viet Cao (VNU University of Engineering and Technology, Vietnam); An Viet Dang (University of Science and Technology of Hanoi, Vietnam); Tuan Anh Mai (VNU University of Engineering and Technology, Vietnam)	Oral
4:30 PM	1571171771	A 107dB-SNDR and 165dB-FOM Second-Order Noise-Shaping SAR ADC	Viet Nguyen-Thien (Telecom Paris, France); Thao Chau Cao (Asygn, France); Minh Quang Tran and Huy Quang Thai (Hanoi University of Science and Technology, Vietnam); Loan Pham-Nguyen (Hanoi University of Science and Technology & School of Electronics and Telecommunications, Vietnam)	Oral
4:45 AM	1571171749	A Wideband LC-QVCO with Bimodal Oscillation Suppression for s-Band 5G Telecommunications	Minh Quang Vu, Long Viet Cao, Tuan Ba Nguyen and Tuan Anh Mai (VNU University of Engineering and Technology, Vietnam)	Oral
5:00 PM	1571178441	An Efficient Hardware Compression Technique for Low-Power Spiking Neural Networks	The-Anh Nguyen (Vietnam National University, Hanoi, Vietnam); Thao-Nguyen Tran-Ha (VNU-ITI, Vietnam); Ngo-Doanh Nguyen (Universiyt of Genoa, Italy); Khanh N. Dang (University of Aizu, Japan); Duy-Hieu Bui (Vietnam National University, Hanoi, Vietnam); Xuan-Tu Tran (VIetnam National University, Hanoi, Vietnam)	Oral
5:15 AM	1571179878	A Maintenance-Free Energy-Harvesting Sensor Platform with Seamless Plug-and-Play Sigfox Connectivity for Scalable IoT Deployments	The-Anh Nguyen (Vietnam National University, Hanoi, Vietnam); Xuan-Tu Tran (VIetnam National University, Hanoi, Vietnam); Orazio Aiello (University of Genova, Italy); Roberto La Rosa (STMicroelectronics, Italy)	Oral
5:30 PM	1571178405	Development of Drifting Data Logger with Solar Power for Long-Term Observation	Shonosuke Ishida (Ritsumeikan University, Japan); Takeshi Kumaki (Ritsumeikan University & Dept. of VLSI System Design, Japan); Yuta Kusunoki (Japan)	Oral

5:45 PM	Banquet (a shuttle bus will pick you up at the conference venue) Location: JW Marriott hotel Address: 8 Do Duc Duc, Nam Tu Liem, Hanoi

Friday, October 17, 2025

Day 2: Friday, October 17, 2025				
8:30 AM - 9:15 AM	**Session: Keynotes 2** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Duy-Hieu Bui (VNU, Vietnam) & Khanh N. Dang (UoA, Japan)			
Time	Paper #	Title	Authors	Type
8:30 AM	Keynote #4	AI with Attentive Intelligence (AI2) – Enabling Physical Monitoring without Physical Boundaries	Massimo Alioto, National University of Singapore	Keynote
9:15 AM	Tea break			
9:30 AM - 12:00 PM	**Session #4: Signal Processing And Machine Learning (SPML)** Venue: Room Hanoi, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Quang-Kien Trinh (LQDTU, Vietnam)			
Time		Title	Authors	Type
9:30 AM	1571168745	Proposal of Pulse Wave Extraction Method Based on Pulse Wave Selection Method Using Adaptively Computed Higher-Order Statistics	Yamato Imai and Haruto Sakurai (Maebashi Institute of Technology, Japan); Minoru Komatsu (Suwa University of Science & Maebashi Institute of Technology, Japan); Hiroki Matsumoto (Maebashi Institute of Technology, Japan)	Oral
9:45 AM	1571169446	Data Augmentation Methods for Music Removal from Environmental Sounds Based on Machine Learning	Hyuga Hagiwara and Yuka Saito (Maebashi Institute of Technology, Japan); Tomomi Ogawa (Tokyo Denki University, Japan); Hiroki Matsumoto (Maebashi Institute of Technology, Japan)	Oral

10:00 AM	1571171606	Fault Diagnosis of Fan Motors Using Multi-Domain Feature Extraction and Kolmogorov-Arnold Networks (KAN)	Tuan Minh Le and Ke Wang (RMIT University, Australia); Hung Viet Pham (RMIT University, Vietnam); Duy Tan Le (International University VNU-HCM, Vietnam); Hieu Minh Tran (RMIT University, Australia & International University, VNU-HCMC, Vietnam); Son Vu Truong Dao (RMIT University Vietnam, Vietnam)	Oral
10:15 AM	1571170355	Robust Sparse Subspace Tracking from Corrupted Data Observations	Thuy Loan Giang Ta, Hoang-Lan Nguyen and Lan Ngoc Nguyen (VNU University of Engineering and Technology, Vietnam); Do Hai Son (Curtin University, Australia); Tran Thi Thuy Quynh (VNU University of Engineering and Technology, Vietnam); Nguyen Linh Trung (Vietnam National University, Hanoi, Vietnam); Karim Abed-Meraim (University of Orleans & PRISME Lab., France); Thanh Trung LE (Vietnam National University, Hanoi, Vietnam)	Oral
10:30 AM	1571168737	The Generation Method of Two-Scale Sequence Generating Arbitrary Mother Wavelet with High Accuracy Using Machine Learning for Discrete Wavelet Transform	Yamato Imai (Maebashi Institute of Technology, Japan); Minoru Komatsu (Suwa University of Science & Maebashi Institute of Technology, Japan); Hiroki Matsumoto (Maebashi Institute of Technology, Japan)	Oral
10:45 AM	1571168820	Compressive Sensing for Inter-Frame Video Compression	Hien Thu Nguyen (Vietnam National University Hanoi, Vietnam); An Thanh Nguyen and Hung Duy Nguyen (Vietnam National University, Hanoi, Vietnam); Quang Duc Pham (University of Engineering and Technology & Hanoi Vietnam National University, Vietnam)	Oral
11:00 AM	1571169326	Compressive Sensing Based Single Pixel Camera Using Mask-Shifting Method	Minh Nhat Phu (VNU University of Engineering and Technology, Vietnam); Quang Duc Pham (University of Engineering and Technology & Hanoi Vietnam National University, Vietnam)	Oral
11:15 AM	1571176824	Leverage Sub-Band and Cross-Band Information in Real-Time Speech Signal Improvement	Nhat Linh Nguyen Thi and Quoc Cuong Nguyen (Hanoi University of Science and Technology, Vietnam)	Oral
11:30 AM	1571175090	Machine Learning and Spectral Fusion Based Person Verification Using Intra-Palm Propagation Signal	Isao Nakanishi and Kenshi Watanabe (Tottori University, Japan)	Oral

11:45 AM	1571175016	Novel Triple Band Bandpass Filter Designed for WiMAX Communication Systems	Cuong Quoc Vuong (Vietnam National University, Vietnam); Tuan Anh Mai (VNU University of Engineering and Technology, Vietnam); Duong Nguyen (International University, Vietnam); Linh Mai (University of Engineering and Technology, VNU-Hanoi & UET, Vietnam)	Oral
9:30 AM - 12:00 PM	Session #5: AI for Computer Vision (AICV) Venue: Room 505, Building E3, Vietnam National University Hanoi Chairs: Le Hoang Son (VNU-ITI, Vietnam)			
Time	Paper #	Title	Authors	Type
9:30 AM	1571166699	YOLO-Pest: a Robust Model for Golden Apple Snail Detection	Quoc-Viet Hoang and Trung-Hieu Le (Hung Yen University of Technology and Education, Vietnam)	Oral
9:45 AM	1571179027	Replacing YOLOv8n with YOLOv12n in Greenhouse Automation: a Post-Thesis Evaluation Using the Unified Detection Score (UDS)	Oleg Shovkovyy (CMKL University, Thailand & Burapha University, Thailand); Hossein Miri (Chulalongkorn University, Thailand)	Oral
10:00 AM	1571161683	Deep Learning-Enhanced Push-Broom Hyperspectral Imaging System for Non-Destructive Subsurface Defect Detection	Keh-moh Lin, Ming-Hsien Shih and Ya-Xiu Liang (Southern Taiwan University of Science and Technology, Taiwan); Wen-Tse Hsiao (Taiwan Instrument Research Institute, NarLabs, Taiwan)	Oral
10:15 AM	1571170214	Robust Anomaly Detection in Human Actions via Pose, Interaction, and Motion Cues	Duc-Tho Mai (Academy of Cryptography Techniques, Vietnam); Thuan Bui (Swinburne Vietnam, FPT University, Vietnam)	Oral
10:30 AM	1571177339	CF-YOLO: Cross-Modal Fusion for Weakly Aligned RGB-IR UAV Object Detection	Lan Nguyen, Cao Truong Tran and Vân Thị Hải Nguyễn (Le Quy Don Technical University, Vietnam)	Oral
10:45 AM	1571179897	Systematic Evaluation of YOLO in Student Behavior Detection - a New Dataset	Anh-Tu Tran (Dai Nam University, Vietnam); Nguyen Thai Khanh (Hanoi University of Science and Technology, Vietnam); Trung-Thanh Nguyen, Anh-Ha Tuan and Trung-Hieu Le (Dai Nam University, Vietnam)	Oral
11:00 AM	1571168966	DTF-Net: Dual-Transfer Feature Network for Ship Detection in Inclement Weather Conditions	Trung-Hieu Le and Quoc-Viet Hoang (Hung Yen University of Technology and Education, Vietnam)	Oral

11:15 AM	1571179997	ArborNet: Featherweight Representation Learning for Real-Time Cashew Nut Quality Classification	Nguyen Duc Quang Anh (Vietnam National University, Vietnam); Thai Dinh Kim (International School, Vietnam National University, Hanoi, Vietnam); Minh-Anh Nguyen (Vietnam National University Hanoi, Vietnam); Thao Phuong Pham (International School, Vietnam National University, Hanoi, Vietnam); Ha Phuong Vu (Vietnam National University Hanoi, Vietnam); Minh Duc Pham and Dinh-Truong Kim (Ministry of Defense, Vietnam)	Oral
11:30 AM	1571170668	Transitional Patterns for Tick-Shape Backbones	Chi-Hieu Le (HCMC University of Technology and Education, Vietnam & HCMUTE, Vietnam); Thanh Tuan Nguyen (HCMC University of Technology and Education, Vietnam); Hoang Anh Pham (Post and Telecommunications Institute of Technology, Vietnam); Nam Vu (Posts and Telecommunications Institute of Technology, Vietnam); Thi-Minh-Chau Le (HCMC University of Technology and Education, Vietnam); Thanh Phuong Nguyen (Université Côte d'Azur, France)	Oral
11:45 AM	1571170393	Can Oriented Bounding Box Enhance Small Object Detection?	Lam Thai Nguyen and Tran Hiep Dinh (VNU University of Engineering and Technology, Vietnam)	Oral
12:00 AM	Lunch			
1:00 PM - 2:30 PM	**Session #6: Wireless Communication (WiC)** Venue: Room Ha Long, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Anh-Tuyen Le (UTS, Australia)			
Time	Paper #	Title	Authors	Type
1:00 PM	1571169561	Antenna-Independent Deep Learning for Self-Interference Cancellation in in-Band Full-Duplex MIMO Systems	Anh Tuyen Le and Xiaojing Huang (University of Technology Sydney, Australia); Le Chung Tran (University of Wollongong, Australia); J. Andrew Zhang, Peiyuan Qin and Y. Jay Guo (University of Technology Sydney, Australia)	Oral
1:15 PM	1571169883	Distributed Non-Coherent Spiral SAR Imaging with Random RF Illumination	Cao Hong Phuc Nguyen (University of Technology Sydney (UTS), Australia); Xiaojing Huang and J. Andrew Zhang (University of Technology Sydney, Australia)	Oral
1:30 PM	1571179408	Two-Stage Visual Feature Learning for RIS-Assisted Beamsteering in Occluded User Scenarios	Shimpei Nishiyama, Dipanita Chakraborty and Minoru Okada (Nara Institute of Science and Technology, Japan)	Oral

1:45 PM	1571179670	A Compact Four-Port MIMO Patch Antenna Array for Internet-of-Things Applications	Nguyen Tran, Hoang Huy Nguyen, Anh Tran-Tuan and Noi Truong-Quang (PHENIKAA University, Vietnam)	Oral
2:00 PM	1571179844	Design of a 2-Bit Unit-Cell for Electronic Beam-Switching Reconfigurable Intelligent Surfaces	Long Nguyen (University of Engineering and Techonology & Vietnam National University, Vietnam); Vu Thi Lan Nhi (University of Engineering Technology - VNU, Vietnam); Nguyen Minh Thien (International University, Vietnam); Tuan Anh Mai (VNU University of Engineering and Technology, Vietnam); Linh Mai (University of Engineering and Technology, VNU-Hanoi & UET, Vietnam); Duong Nguyen (International University, Vietnam)	Oral
2:15 PM	1571179867	Heart Rate Detection Using CW Doppler Radar: Adaptive Dual-Algorithm Selection with Quality Assessment Framework	Nguyen Huu Son and Masaki Kurosawa (The University of Electro-Communications, Japan); Hoang Thi Yen (Le Quy Don Technical University, Vietnam); Guanghao Sun (The University of Electro-Communications, Japan)	Oral
1:00 PM - 2:30 PM	Session #7: Artificial Intelligence for Communications and IT (AI4C-I) Venue: Room 505, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Duc-Tho Mai (ACT, Vietnam)			
Time	Paper #	Title	Authors	Type
1:00 PM	1571171012	Long-Term Traffic Forecasting with the Informer Model: Insights from Taiwan's Section	Kuan-Ting Wu and Shinfeng Lin (National Dong Hwa University, Taiwan)	Oral
1:15 PM	1571171580	An Integrated Learning-Based AI Mobile Platform for Autonomous Navigation and Hazardous Fire Intelligence	Thu Doan Minh Le (International University - VNU-HCMC, Vietnam); Boi T. Ho (International University VNU- HCMC, Vietnam); Hieu Minh Tran (RMIT University, Australia & International University, VNU-HCMC, Vietnam); Ke Wang (RMIT University, Australia); Ly Van Tran (International University - VNU HCMC, Vietnam); Quoc Bao Vuong (International University, VNUHCMC, Vietnam); Son Vu Truong Dao (RMIT University Vietnam, Vietnam)	Oral
1:30 PM	1571171624	Integration of IoT and Machine Learning for Monitoring Rubber Latex Stirrer Motor Systems Using PCA and K-Means Techniques	Tanakorn Inthasuth, Theerawat Petdee and Thanwit Naemsai (Rajamangala University of Technology Srivijaya, Thailand); Kritsana Sureeya (Thai-Nichi Institute of Technology, Thailand); Siti Zuraidah Ibrahim (Universiti Malaysia Perlis, Malaysia)	Oral

1:45 PM	1571170109	Synthetic Text Data Generation from LLMs for Knockoff Model Training in Sentiment Analysis	Pham Xuan Cong (Le Quy Don Technical University, Vietnam); Hoang Trung Nguyen (Le Qui Don Techincal University, Vietnam); Binh Do (Military Information Technology Institute, Vietnam); Cao Truong Tran (Le Quy Don Technical University, Vietnam)	Oral
2:00 PM	1571179638	Towards Few-Shot Large Language Models for Vietnamese Spoken Question Answering	Minh Trong Le (VNU University of Engineering and Technology, Vietnam); Thinh Duc Nguyen (Vietnam); Chung Ba Tuan Pham (Hanoi University of Industry, Vietnam); Le Hoang Son (Vietnam National University, Vietnam)	Oral
2:15 PM	1571179759	Efficient and Lightweight Human Activity Recognition Based on Wearable Sensors Using Light Residual Neural Network	Sakorn Mekruksavanich (University of Phayao, Thailand); Datchakorn Tancharoen (Panyapiwat Institute of Management (PIM), Thailand); Anuchit Jitpattanakul (KMUTNB, Thailand)	Oral
2:30 PM		Tea break		
2:45 PM - 4:00 PM	**Session #8: Artificial Intelligence for Communications and IT (AI4C-II)** Venue: Room Ha Long, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Thai-Viet Dang (HUST)			
Time	Paper #	Title	Authors	Type
3:00 PM	1571170375	Low-Rank Triple Decomposition of Streaming Tensors and Its Application to Video Completion	Thanh Trung LE (Vietnam National University, Hanoi, Vietnam); Hong Thinh Nguyen (University of Engineering and Technology, VNU Hanoi & Signal and System Laboratory, Vietnam); Ha Manh Luu (AVITECH & FET, University of Technology and Engineering, VNU, Hanoi, Vietnam & Erasmus MC, Rotterdam, The Netherlands); Tran Thi Thuy Quynh and Ha Vu Le (VNU University of Engineering and Technology, Vietnam); Vy-Thuy-Lynh Hoang (BRGM French Geological Survey, France); Karim Abed-Meraim (University of Orleans & PRISME Lab., France); Philippe Ravier and Olivier Buttelli (Université d'Orléans, France)	Invited
3:15 PM	1571182934	Explainable AI-Enhanced Fault Diagnosis for Rotating Machinery: A SHAP-Based Framework for Transparent Decision Making	Du Nguyen Trong (Hanoi University of Science and Technology, Vietnam); Thanh-Tung Vu, Thanh Binh Do	Oral

			Danh, Thai Hung Pham and Phong-Dien Nguyen (HUST, Vietnam)	
3:30 PM	1571168756	Blood Glucose Estimation Method Based on Data from Optical Sensors Using Machine Learning	Kazuki Asakura (Maebashi Institute of Technology, Japan); Saki Takaira (Taiyo Yuden, Japan); Hiroki Matsumoto (Maebashi Institute of Technology, Japan)	Oral
3:45 PM	1571171571	Mitigating Class Imbalance in Chest X-Ray Classification with Memory-Augmented Models	Duy Hoang, Duy Huu Nguyen and Ngu Huynh (FPT University, Vietnam)	Oral
4:00 PM	1571171772	TBI-TTM: Traumatic Brain Injury Prognosis with Textual Data Under Missing Tabular Conditions	Duc-Khiem Doan, Nguyen Thai Khanh and Minh Trang Duong (Hanoi University of Science and Technology, Vietnam); Thanh-Bac Nguyen (Military Hospital, Vietnam); Thanh-Hai Tran (Hanoi University of Science and Technology, Vietnam)	Oral
2:45 PM - 4:00 PM	Session #9: Circuits and Systems (CAS-II) Venue: Room 505, Building E3, Vietnam National University Hanoi Chairs: Duy-Hieu Bui (VNU-ITI, Vietnam)			
Time	Paper #	Title	Authors	Type
2:45 PM	1571179567	A Study on the Effect of Sunlight Spectrum LED for Saffron Growth	Ryosuke Matsui (Ritsumeikan University, Japan); Takeshi Kumaki (Ritsumeikan University & Dept. of VLSI System Design, Japan)	Oral
3:00 PM	1571171690	Pulse Rate Estimation and Power Consumption for Human-Recorder	Daiki Nomura and Tsubasa Kinoshita (Kindai University, Japan); Takeshi Kumaki (Ritsumeikan University & Dept. of VLSI System Design, Japan); Kyosuke Kageyama (Kindai University, Japan)	Oral
3:15 PM	1571171687	Proposal of Noncontact Fish-Pulse Estimation Camera for Flatfish	Kento Ohno and Daishi Kobayashi (Kindai University, Japan); Keiya Kumaki (Kochi University, Japan); Takeshi Kumaki (Ritsumeikan University & Dept. of VLSI System Design, Japan); Kyosuke Kageyama (Kindai University, Japan)	Oral
3:30 PM	1571169609	MPU Circuit Generation from Programs with Meta-Instructions	Tomoyuki Morimoto (Meiji University, Japan & VIAX, Japan); Hiroto Iwata, Kiyoto Goto and Toshiyuki Tsutsumi (Meiji University, Japan)	Oral

3:45 PM	1571179689	CSI-Based Human Activity Recognition Using Low-Cost Wi-Fi Modules and Deep Neural Networks	Cong Van Do, Duc Minh Luong and Khanh Tien Luong (Hanoi University of Science and Technology, Vietnam); Hai Van Phan (Hanoi Open University, Vietnam); Quoc Cuong Nguyen (Hanoi University of Science and Technology, Vietnam); Thuy Minh Le (School of Electrical & Electronic Engineering, Vietnam & Hanoi University of Science and Technology, Vietnam)	Oral
4:00 PM	Tea break			
4:15 PM-5:45 PM	**Session #10: Artificial Intelligence for Communications and IT (AI4C-III)** Venue: Room Ha Long, Jonathan KS Choi Center, Vietnam National University Hanoi Chairs: Xuan-Tu Tran (VNU, Vietnam)			
4:15 PM	1571179508	A GAN-Based Knowledge Distillation Framework for Robust Defect Detection on PCBs in Low-Light Conditions	Hằng Hoàng, Trung-Hieu Le and Quoc-Viet Hoang (Hung Yen University of Technology and Education, Vietnam); Pham Ngoc Thang (University & Hung Yen University of Technology and Education, Vietnam)	Oral
4:30 PM	1571165834	Graph Attention Networks for Channel-Aware User Clustering in mmWave-NOMA Systems	Ayman Rabee and Imad Barhumi (United Arab Emirates University, United Arab Emirates)	Oral
4:45 PM	1571179467	Multi-Level Feature Absorption Network for Fault Detection in Power Lines Under Low-Illumination Conditions	Van Anh Nguyen, Trung-Hieu Le and Quoc-Viet Hoang (Hung Yen University of Technology and Education, Vietnam); Pham Ngoc Thang (University & Hung Yen University of Technology and Education, Vietnam)	Oral
5:00 PM	1571171650	Solving at-Least Sequence Constraints in Nurse Rostering Problem Using SAT	Hieu Truong Xuan, Quan Nguyen Hong, Nghia Dao Xuan and Tuyen Kieu Van (VNU University of Engineering and Technology, Vietnam); Khanh Van To (VNU University of Engineering and Technology)	Oral
5:15 PM	1571181306	Imitation Learning-Based Mobile Robot Navigation Using Semantic Segmentation and Depth Estimation	Thai-Viet Dang (Hanoi University of Science and Technology & School of Mechanical Engineering, Vietnam); Nhu-Nghia Bui (Hanoi University of Science and Technology, Vietnam); Phan Xuan Tan (Shibaura Institute of Technology, Japan)	Oral

5:30 PM	1571171753	A Distributed Peer-to-Peer Framework for Online Services: Protocol Design and Validation	Asif Mahmood (Independent University, Bangladesh, Bangladesh); Razib Hayat Khan (Independent University Bangladesh, Bangladesh); Jahid Hasan Rony (Independent University Bangladesh & Dhaka University of Engineering & Technology (DUET), Bangladesh); M M Mahbubul Syeed and Mohammad Faisal Uddin (Independent University Bangladesh, Bangladesh)	Oral
5:45 PM	Closing session			

Saturday, October 18, 2025

Social Event: Hanoi Old Quarter guided tour (7:30 AM - 11:30 AM)

Advanced registration before October 17, 2025, is required. The number of places is limited. Please scan this QR Code to register for the event.

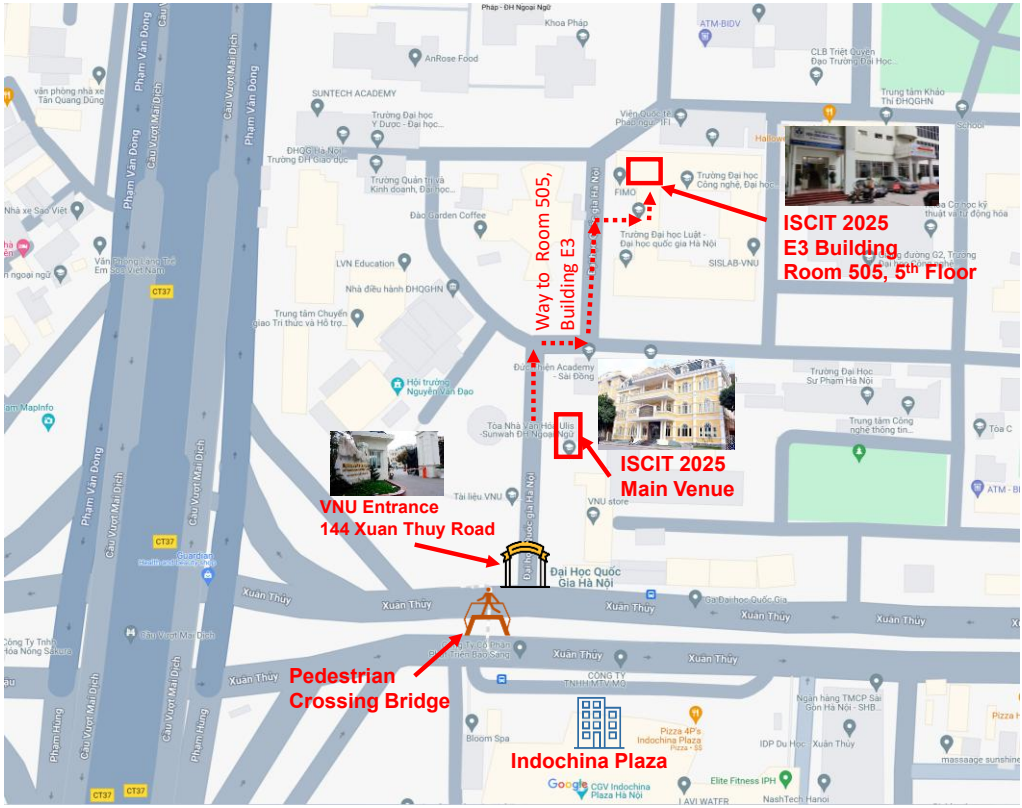
URL: https://iscit2025.org/social-event

Note: Each talk has about 30 minutes to 45 minutes (25 minutes to 40 for presentation and 5 minutes for Q&A)
Each regular talk has 15 minutes (12 minutes for presentation and 3 minutes for Q&A)

Information

Venue Map

Please be advised that the participants should take Grab or XanhSM (Android/iOS apps) to go to the venue. In the case you take a traditional taxi, please ask the driver to drop you at **VNU Entrance** (144 Xuan Thuy Road) or **Indochina Plaza Hanoi (IPH) building** (opposite to VNU main entrance).



Digital Resource & Conference Proceedings

URL: https://iscit2025.org/proceedings

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Gala Dinner

Time: 18:30 October 16, 2025 *(Shuttle bus is available at 17:45 from the conference venue)*
Location: JW Marriott hotel
Address: 8 Do Duc Duc, Nam Tu Liem, Hanoi
A shuttle bus will depart at the conference venue at 17:45 to the restaurant.

Wi-Fi Access

Venue	**Jonathan KS Choi Center (Sunwah building)**		**Room 505, Building E3**
Access point	SUNWAH	ULISWIFI-MeetingRoom	ITI-meeting-room
Password	1955@ulis	dhnn1955	VNU@ITI2023

Transportation

Transportation apps

An easy way to book taxis or motorbikes is the ride-hailing apps such as: Grab, XanhSM (electric vehicle), Be, and Taxi Mai Linh. Grab (and Be) are the Uber of SE Asia and can be used to reserve a car, taxi, or motorbike.

You can download the Grab/Be apps in the app store (Android | Apple) on your phone and register using your phone number, Facebook account, or Google account. It takes no more than 2 minutes to complete the registration. You will need Internet connection to use these apps.

Scan this QR Code to install Grab on your phone

Scan this QR Code to install XanhSM on your phone

Traditional taxis

Most taxis have a meter & receipt; the price is about US$0.5 – 0.8/km (12,000 – 18,000 VND/km). We recommend the following taxi brands:

- Mai Linh Taxi: (84 - 24) 38.616.161 – (84 - 4) 38.333.333
- Taxi Group (84 - 24) 38535353 – (84 - 4) 38262626
- G7 Taxi: (84-24) 32 32 32 32

The Information Technology Institute, Vietnam National University, Hanoi

As the first modern university established and one of the two national universities in Vietnam, Vietnam National University (VNU) has undergone various stages of development: the University of Indochina established on May 16, 1906; Vietnam National University (November 1945); the University of Hanoi (June 1956). In December 1993, VNU was reorganized by amalgamating the University of Hanoi with other leading universities in Hanoi. VNU is the largest comprehensive higher education and research center in Vietnam. VNU is entrusted with the task of producing highly qualified human resources and talents for the industrialization and modernization of the country.

The Institute of Information Technology (ITI), established in 2001, is a member of Vietnam National University, Hanoi. The mission of ITI is to train high-quality experts in Vietnam, including Doctoral and Master's programs in Information Technology, Computer Science, and Engineering. Besides that, we implement scientific research, application, consulting, and technology transfer. Moreover, we offer a range of advanced courses, including Blockchain, Artificial Intelligence, Data Science, and Digital Transformation, designed to enhance the knowledge/skills of freshers before they enter the workforce.

Currently, the ITI has five research departments, including: (1) Department of Database and Information Systems; (2) Department of Information Security; (3) Department of Network and Communication Technology; (4) Department of Recognition Technology and Natural Language Processing; (5) Department of Multimedia and Virtual Reality. The research groups at ITI have been focusing on the following topics: Data Science; Artificial Intelligence (AI); Virtual/Augmented Reality (VR/AR); Image/Video Processing; Blockchain; Internet of Things (IoT); Embedded Systems; IC and FPGA design, etc. Our products that can be listed here are a Hardware-Software solution for IoT security systems (SECU-IoT), EduNet (Personalized learning), and VNU-Diagnosis: a medical system for diagnosing periapical inflammation from X-ray images. ITI has a wide cooperation network with international universities, research institutes, and enterprises in the USA, France, Germany, Japan, Korea, Malaysia, and other countries. Recently, we have deployed numerous scientific projects in cooperation with international partners and published a significant number of papers in ISI/Scopus journals.

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