

ABSTRACT

23rd International Joint Conference on
Computer Science and Software Engineering

Bangkok, 24-27 June 2026



JCSSE '26

BANGKOK, THAILAND

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The 23rd International Joint Conference on Computer Science and Software Engineering (JCSSE 2026) is co-organized by IEEE Thailand Section (IEEE Computer Society Thailand Chapter) and Department of Computer Engineering, Faculty of Engineering, King Mongkut's University of Technology Thonburi. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements.

Aim and Scope

The International Joint Conference on Computer Science and Software Engineering (JCSSE) is recognized as a leading international forum in its domain. It provides an opportunity for researchers to present novel research findings and foster the exchange of ideas, while also offering a platform for practitioners to share insights and experiences from real-world software and system development. The conference covers a comprehensive range of topics across Computer Science and Software Engineering, including theoretical foundations, algorithm development, software systems, and practical applications.

The 23rd edition of JCSSE (JCSSE 2026) is co-hosted by the Department of Computer Engineering, King Mongkut's University of Technology Thonburi, in collaboration with the IEEE Thailand Section (IEEE Computer Society Thailand Chapter). The event takes place over four days in the heart of Bangkok, Thailand's vibrant capital city.

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KEYNOTE SPEAKERS

Is a code generated by ChatGPT or written by a human?

Recently, large language models have achieved state-of-the-art performance in code generation. Models such as ChatGPT can generate syntactically correct, highly optimized, and human-like code with remarkable accuracy. Additionally, tools like GitHub Copilot further enhance these models by assisting developers in writing high-quality code. As a result, LLMs are increasingly being adopted for code generation and programming-related tasks, transforming modern software development practices.

While LLMs offer numerous benefits, their widespread use also raises critical concerns regarding academic integrity, authorship attribution, and copyright infringement. One observes that students increasingly rely on AI systems to complete assignments and projects, and job candidates to misrepresent their programming abilities during technical interviews while they are not supposed to. Consequently, the ability to distinguish between human-written and AI-generated code is becoming increasingly important and leads to a growing interest in reliable methods for the automatic detection of AI-generated code. We will present some of the most promising methods used to address this issue, and their limits.

Franck Leprévost is a French mathematician and computer scientist, professor at the University of Luxembourg since 2003 and its former Vice-President (2005–2015). Previously a CNRS researcher in Paris and professor in Grenoble, he has held visiting positions at leading institutions across Europe and Asia. His work spans algorithmic number theory, cryptology, deep learning, AI, and evolutionary algorithms, as well as the management and strategic development of higher-education and research systems.



Prof. Dr. Franck Leprévost

University of Luxembourg, Luxembourg

Effective Predictive Maintenance at the Intersection of Machine Learning and Operations Research

The most effective and useful application of predictive maintenance requires both operations research models and machine learning or AI working together. Historically, development of maintenance planning models involved the rigorous application of reliability and maintenance probabilistic models and theory combined with formal analytical tools associated with operations research and mathematical programming. These models, while effective, produced static and non-changing strategies that do not reflect the realities of changing usage and environment conditions. Furthermore, they are based on population characteristics and do not adequately reflect individual differences of units within the population or system. Alternatively, predictive maintenance models which embrace machine learning can dynamically predict a remaining useful life or RUL. These models do specifically reflect individual units within the system and can also adapt to changing conditions. However, their true effectiveness also requires a meaningful decision-rule specifying when to take action and what action, i.e., either replace or repair or dynamically reduce workload to compensate for anticipated degradation. To be truly effective, a combination of these philosophies is needed. The usefulness of predictive maintenance decision rules require the three-way integration or intersection of machine learning, reliability/maintenance theory and operations research. In this speech, we will summarize different approaches to preventive or predictive maintenance models, discuss their relative advantages and disadvantages, highlight a few notable examples to demonstrate this three-way integration, and finally present future research challenges.

David Coit is a Professor in the Department of Industrial & Systems Engineering at Rutgers University, Piscataway, NJ, USA. He has also had visiting professor positions at Universite Paris-Saclay, Paris, France and Tsinghua University, Beijing, China. His current teaching and research involves system reliability modeling and optimization, and energy systems optimization. He has over 140 published journal papers and over 100 peer-reviewed conference papers (h-index 69), including the most highly cited paper ever in Reliability Engineering & System Safety (RESS) and the 4th most cited paper in IEEE Transactions on Reliability.



He is currently an Associate Editor for RESS and Journal of Risk and Reliability and was previously an Associate or Department Editor for IEEE Transactions on Reliability and IIE Transactions. His research has been funded by USA National Science Foundation (NSF), including a NSF CAREER grant to develop new reliability optimization algorithms considering uncertainty. He has been the recipient of the P. K. McElroy award, Alain O. Plait award and William A. J. Golomski award for best papers and tutorials at the Reliability and Maintainability Symposium (RAMS). Prof. Coit received a BS degree in mechanical engineering from Cornell University, an MBA from Rensselaer Polytechnic Institute (RPI), and MS and PhD in industrial engineering from the University of Pittsburgh. He is a fellow of the Institute of Industrial & Systems Engineers (IIE).

Prof. Dr. David Coit
Rutgers University, USA

Quantum Multicomputers and the Road to Scalable Quantum Computing

Quantum multicomputers — modular systems built from smaller quantum nodes coupled together using an interconnection network — were first proposed as a route to scalable quantum computation two decades ago. Key ideas were studied in the 2005-2015 time frame, then a lull ensued as researchers and developers focused on near-term, single-device NISQ systems. Commercial roadmaps now point toward reaching fault-tolerant, single-device limits within this decade. Activity in multicomputers has blossomed over the last three years, mostly centered on mechanisms for making high-fidelity inter-node entanglement. Our own work began in the early 2000s with top-down designs, focusing on workloads, network topologies, error correction and techniques for distributed computation. Today, our ideas are being realized in the Q-Fly experimental network. I will review that recent progress and address the open issues in extending from single links to networks.

Rodney Van Meter received a B.S. in engineering and applied science from the California Institute of Technology in 1986, an M.S. in computer engineering from the University of Southern California in 1991, and a Ph.D. in computer science from Keio University in 2006. His current research centers on quantum computer architecture, quantum networking and quantum education. He is the author of the book Quantum Networking. Other research interests include storage systems, networking, and post-Moore's Law computer architecture. He is now a Professor of Environment and Information Studies at Keio University's Shonan Fujisawa Campus. He is the Vice Center Chair of Keio's Quantum Computing Center, co-chair of the Quantum Internet Research Group, a leader of the Quantum Internet Task Force, and a board member of the WIDE Project. Dr. Van Meter is a member of AAAS, ACM, APS, and IEEE. He is currently Editor in Chief of IEEE Transactions on Quantum Engineering, but this talk is 100% personal opinions.



Prof. Dr. Rodney Van Meter
Keio University, Japan

SPECIAL SESSION

Large Language Models: Advancing Foundations, Safety, and Emerging Capabilities

This special session invites high-quality research contributions as well as work that demonstrates substantive conceptual or technical innovation across the full spectrum of Large Language Models (LLMs). We seek submissions addressing foundational advances in model architecture, training efficiency, and fine-tuning techniques (e.g., LoRA, QLoRA) for specialization and adaptation. We are also interested in scalable deployment methods, such as Retrieval-Augmented Generation (RAG). Equally critical are papers focusing on safety and ethical considerations, including security (e.g., prompt injection), alignment, interpretability, and bias mitigation. Finally, we welcome innovative work on emerging capabilities such as complex reasoning, multi-agent systems, and the development of next-generation multimodal LLMs.

Session Organizers



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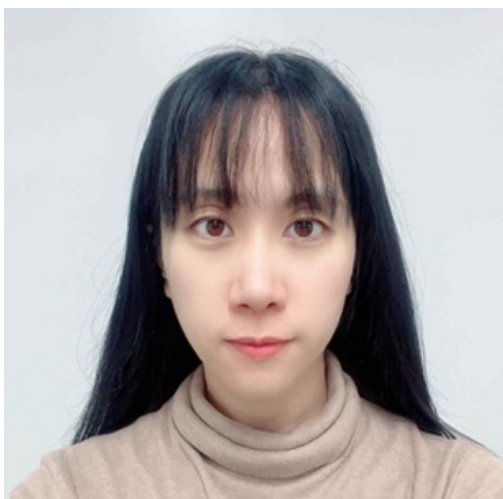
Enjoyable Collaborative Work

As collaboration becomes increasingly digital and distributed, there is a growing need for systems that make teamwork not only effective but also smooth, engaging, and satisfying. Enjoyable collaboration does not always mean playful or game-like; it also includes experiences where communication flows naturally, cognitive load is reduced, conflicts are easier to resolve, and participants feel supported, understood, and motivated. This special session explores technologies, methods, and designs that promote these positive collaborative experiences.

We welcome research on both human-human and human-AI collaboration, including systems that support coordination, shared understanding, emotional awareness, and adaptive assistance. Gamification and playful elements are welcome but not required; equally valuable are approaches that enhance enjoyment through clarity, reduced friction, intelligent mediation, or improved interaction flow. Work on collaborative learning is also encouraged, particularly studies showing how AI and interaction design can help learners work together more smoothly and meaningfully.

Topics of interest include enjoyable or low-friction group work, AI-supported collaboration, interaction cues for engagement, design for smooth communication, facilitation technologies, collaborative learning environments, and computational approaches to modeling collaborative dynamics. By uniting perspectives from AI, HCI, entertainment computing, and learning sciences, this session aims to advance the design of collaborative systems that people not only use successfully, but genuinely experience as positive and enjoyable.

Session Organizers



◀ Mondheera "Ampere"

Pituxcoosuvann

Assistant Professor,
College of Information
Science & Engineering,
Ritsumeikan University,
Japan



Ryosuke "Leo" Yamanishi ▶

Professor, Faculty of
Informatics, Kansai
University, Japan

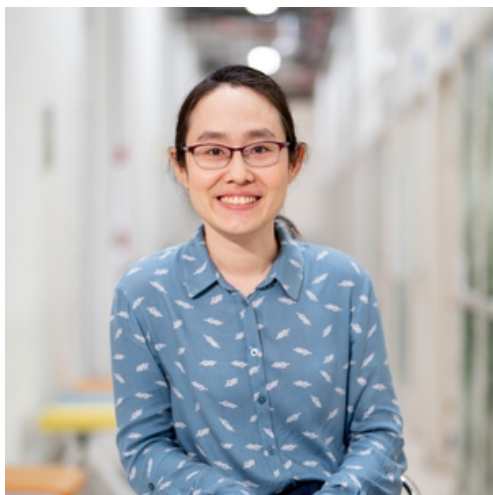
Intelligent Systems and Emerging Data Technologies

The rapid growth of data across diverse domains has created an increasing demand for intelligent systems capable of extracting meaningful insights, supporting informed decision-making, and addressing complex real-world problems. Advances in artificial intelligence, machine learning, and data technologies play a critical role in enabling scalable, adaptive, and robust solutions in data-intensive environments. This special session highlights the significance of intelligent systems and emerging data technologies as key drivers of innovation in both academic research and practical applications.

This session welcomes original research papers and practical contributions related to the design, development, and application of intelligent systems and modern data technologies. Topics of interest include, but are not limited to, intelligent data analytics, machine learning and deep learning, natural language processing, computer vision, recommender systems, knowledge-based and graph-based systems, multimodal data integration, big data platforms, and data-driven decision support systems. Contributions addressing issues such as scalability, efficiency, interpretability, robustness, and responsible AI are also encouraged.

By bringing together researchers, practitioners, and industry experts, this special session aims to foster interdisciplinary discussion, promote the exchange of ideas and experiences, and explore emerging trends and future research directions at the intersection of intelligent systems and data technologies, with particular emphasis on approaches that bridge intelligent models and data-centric system design.

Session Organizers



◀ Sansiri Tarnpradab

Lecturer, Department of
Computer Engineering,
King Mongkut's University
of Technology Thonburi,
Thailand



Kien Hua ▶

Professor, Department of
Computer Science, University
of Central Florida, USA

AIoT Systems: IoT Intelligence and Smart Applications

This special session focuses on recent research advances and practical innovations in Artificial Intelligence of Things (AIoT), spanning system architectures, algorithms, and realworld deployments that integrate artificial intelligence with Internet of Things (IoT) infrastructures. We seek contributions addressing foundational and applied aspects of AIoT, including edge intelligence, data-driven analytics, distributed and federated learning, and scalable edge–cloud coordination. Of particular interest are works that demonstrate effective integration of machine learning techniques within sensor-rich, cyber-physical environments under real-world constraints such as latency, energy efficiency, reliability, and security. The session also welcomes studies exploring the role of Large Language Models (LLMs) as reasoning, interaction, or decision-support components embedded in AIoT systems. Emphasis is placed on experimental validation, system-level evaluation, and realworld deployments across domains such as smart cities, industrial systems, transportation, energy, and data-driven operations and services.

Session Organizers



Kevin Fong-Rey Liu

Provost Professor, Department of Safety, Health, and Environmental Engineering, Ming Chi University of Technology, Taiwan



Yen-Jen Chen

Associate Professor, Department of Electronic Engineering, Ming Chi University of Technology, Taiwan

PAPER STATISTICS

JCSSE 2026 accepted **160 papers** across **18 research topics**, presented by researchers from universities and institutions worldwide.

Health and Bioinformatics		22	13.75%
Image Processing and Computer Vision		12	7.50%
Software Engineering and Development		12	7.50%
Natural Language Processing and Text Analytics		12	7.50%
AIoT Systems: IoT Intelligence and Smart Applications		12	7.50%
Computing		7	4.38%
Machine Learning and Data Analytics		7	4.38%
Computer Networks and Communications		7	4.38%
Large Language Models: Advancing Foundations, Safety, and Emerging Capabilities		7	4.38%
Intelligence Systems and Emerging Data Technologies		6	3.75%
Human Computer/Machine Interaction		6	3.75%
Machine Learning Foundations		6	3.75%
Enjoyable Collaborative Work		6	3.75%
Education and Game		5	3.13%
Object Detection		5	3.13%
Network and System Security		5	3.13%
Generative AI		5	3.13%
Hardware, IoT, and Embedded Systems		5	3.13%
Other		13	8.13%

Total **160 papers**, **18 research topics**

Paper statistics analysis for conference Authors by Country and Region (All Papers)

All authors of submitted papers are counted. Authors are counted once for each paper

Country	Authors	%	Papers (1st author)	%
Thailand	489	62.3%	136	60.4%
Taiwan	57	7.3%	13	5.8%
Japan	41	5.2%	16	7.1%
Indonesia	29	3.7%	7	3.1%
Vietnam	25	3.2%	5	2.2%
India	24	3.1%	8	3.6%
Philippines	18	2.3%	5	2.2%
Bangladesh	15	1.9%	4	1.8%
USA	15	1.9%	8	3.6%
Slovakia	10	1.3%	3	1.3%
Luxembourg	9	1.1%	2	0.9%
Malaysia	7	0.9%	3	1.3%
Australia	6	0.8%	2	0.9%
Hungary	5	0.6%	2	0.9%
Korea (South)	5	0.6%	1	0.4%
Myanmar	4	0.5%	1	0.4%
Hong Kong	4	0.5%	0	0.0%
Senegal	4	0.5%	1	0.4%
United Kingdom	3	0.4%	2	0.9%
Sri Lanka	3	0.4%	2	0.9%
Pakistan	2	0.3%	1	0.4%

Country	Authors	%	Papers (1st author)	%
Morocco	2	0.3%	0	0.0%
Switzerland	1	0.1%	0	0.0%
Canada	1	0.1%	0	0.0%
Nepal	1	0.1%	1	0.4%
Finland	1	0.1%	0	0.0%
China	1	0.1%	0	0.0%
Sweden	1	0.1%	1	0.4%
Turkey	1	0.1%	1	0.4%
Bahrain	1	0.1%	0	0.0%

Total 785 papers from 30 countries

Author counts for Europe, Middle East, Africa are shown both combined and separated into Europe and MEA

Region	Authors	%
Asia/Pacific	731	93.1%
Europe, Middle East, Africa	38	4.8%
Europe	30	3.8%
United States	15	1.9%
Middle East and Africa	8	1.0%
Canada	1	0.1%

Total 785 papers from 6 regions

Authors by Country and Region (Accepted Papers)

All authors of accepted papers are counted, regardless of their authorship position. Authors who contributed to multiple accepted papers are counted once for each paper. ce for each paper

Country	Authors	%	Papers (1st author)	%
Thailand	390	64.7%	104	65.0%
Taiwan	47	7.8%	11	6.9%
Japan	40	6.6%	15	9.4%
Indonesia	23	3.8%	5	3.1%
Vietnam	23	3.8%	4	2.5%
Luxembourg	9	1.5%	2	1.2%
Bangladesh	9	1.5%	3	1.9%
Slovakia	8	1.3%	2	1.2%
Philippines	8	1.3%	2	1.2%
India	6	1.0%	2	1.2%
USA	6	1.0%	2	1.2%
Australia	6	1.0%	2	1.2%
Korea (South)	5	0.8%	1	0.6%
Malaysia	5	0.8%	2	1.2%
Myanmar	4	0.7%	1	0.6%
Hungary	4	0.7%	1	0.6%
Morocco	2	0.3%	0	0.0%
Hong Kong	1	0.2%	0	0.0%
Switzerland	1	0.2%	0	0.0%
Canada	1	0.2%	0	0.0%
Pakistan	1	0.2%	0	0.0%

Country	Authors	%	Papers (1st author)	%
Finland	1	0.2%	0	0.0%
China	1	0.2%	0	0.0%
Sweden	1	0.2%	1	0.6%
Bahrain	1	0.2%	0	0.0%

Total 603 papers from 25 countries

Author counts for Europe, Middle East, Africa are shown both combined and separated into Europe and MEA

Region	Authors	%
Asia/Pacific	569	94.4%
Europe, Middle East, Africa	27	4.5%
Europe	24	4.0%
United States	6	1.0%
Middle East and Africa	3	0.5%
Canada	1	0.2%

Total 603 papers from 6 regions

Papers Authored by TPC Members

A paper is counted if any of the authors is a TPC member.

Region	Accepted	Minor rev.	Major rev.	Rejected
Chair	6	0	2	0
Trackchair	14	0	0	1
Reviewer	48	6	2	14

Total TPC 93 members

CONFERENCE PROGRAM

June 24-27, 2026, Bangkok, Thailand

Day 1 - Wednesday, June 24, 2026

13:30 - 18:00	Open Registration
14:00 - 17:00	JCSSE Committee Meeting (I)

Day 2 - Thursday, June 25, 2026

8:00 - 16:00	Open Registration			
9:00 - 9:15	Opening Ceremony			
9:15 - 10:45	Keynote Speakers			
9:15 - 9:45	Keynote speaker (I) Is a code generated by ChatGPT or written by a human? Prof. Franck Leprévost <i>University of Luxembourg, Luxembourg</i>			
9:45 - 10:15	Keynote speaker (II) Effective Predictive Maintenance at the Intersection of Machine Learning and Operations Research Prof. David Coit <i>Rutgers University, USA</i>			
10:15 - 10:45	Keynote speaker (III) Quantum Multicomputer and the Road to Scalable Quantum Computing Prof. Rodney Van Meter <i>Keio University, Japan</i>			
10:45 - 11:00	Coffee Break			
11:00 - 17:00	Parallel Sessions			
Room	Bongkotrat A	Bongkotrat B	Busabongkot A	Busabongkot B
11:00 - 12:15	Session 1A 11:00 - 12:15 Education and Game	Session 1B 11:00 - 12:15 Object Detection	Session 1C 11:00 - 12:15 Network and System Security	Session 1D 11:00 - 12:15 Health and Bioinformatics (1/4)
12:15 - 13:30	Lunch Break			
13:30 - 15:00	Session 2A 13:30 - 14:45 Generative AI	Session 2B 13:30 - 15:00 Image Processing and Computer Vision (1/2)	Session 2C 13:30 - 15:00 Software Engineering and Development (1/2)	Session 2D 13:30 - 15:00 Intelligence Systems and Emerging Data Technologies

Room	Bongkotrat A	Bongkotrat B	Busabongkot A	Busabongkot B
15:00 - 15:15	Coffee Break			
15:15 - 17:00	Session 3A 15:15 - 17:00 Computing	Session 3B 15:15 - 16:45 Image Processing and Computer Vision (2/2)	Session 3C 15:15 - 17:00 Machine Learning and Data Analytics	Session 3D 15:15 - 17:00 Computer Networks and Communications
17:00 - 18:00	Free Time			
18:00 - 21:30	Dinner Banquet at the Hotel & Best Paper Awards			

Day 3 - Friday, June 26, 2026

8:30 - 12:00	Open Registration			
9:00 - 16:45	Parallel Sessions			
Room	Bongkotrat A	Bongkotrat B	Busabongkot A	Busabongkot B
9:00 - 10:30	Session 4A 9:00 - 10:30 NLP and Text Analytics (1/2)	Session 4B 9:00 - 10:15 Hardware, IoT, and Embedded Systems	Session 4C 9:00 - 10:30 Software Engineering and Development (2/2)	Session 4D 9:00 - 10:30 Health and Bioinformatics (2/4)
10:30 - 10:45	Coffee Break			
10:45 - 12:15	Session 5A 10:45 - 12:15 NLP and Text Analytics (2/2)	Session 5B 10:45 - 12:15 Human Computer/Machine Interaction	Session 5C 10:45 - 12:15 Machine Learning Foundations	IEEE Thailand - JCSSE Committee Meeting
12:15 - 13:30	Lunch Break			
13:30 - 15:15	Session 6A 13:30 - 15:00 AloT Systems (1/2)	Session 6B 13:30 - 15:00 Enjoyable Collaborative Work	Session 6C 13:30 - 15:15 LLMs: Advancing Foundations, Safety, and Emerging Capabilities	Session 6D 13:30 - 15:00 Health and Bioinformatics (3/4)
15:00 - 15:15	Coffee Break			
15:15 - 16:45	Session 7A 15:15 - 16:45 AloT Systems (2/2)			Session 7D 15:15 - 16:30 Health and Bioinformatics (4/4)
16:45 - 17:30	Free Time			
17:30 - 18:00	Depart by Bus for the Dinner Cruise			
18:00 - 21:30	Dinner Cruise on the Chao Phraya River			

Day 4 - Saturday, June 27, 2026

9:00 - 12:00	JCSSE Committee Meeting at the Department of Computer Engineering, KMUTT (II)
12:00 - 13:30	Lunch Break
13:30-15:30	JCSSE Committee Meeting at the Department of Computer Engineering, KMUTT (III)

PARALLEL SESSIONS

Presentation Schedule

Thursday, June 25, 2026

11:00 - 12:15

Session 1A: Education and Game

Bongkotrat A Room

Chairperson

Taweechai Nuntawisuttiwong

King Mongkut's University of Technology Thonburi, Thailand

11:00 - 11:15

A Stealth Assessment System for Inferring Learning Strategies from Puzzle Gameplay

Buchaputara Pansri (Silpakorn University, Thailand); Vivat Thongchotchat (Big Data Institute, Thailand); Phuriwat Worrawichaipat (Silpakorn University, Thailand)

PaperID: 1571250345

11:15 - 11:30

The Purrfect Comm: An Interactive Game for Learning Data Communication

Vasaka Visoottiviseth, Tanapat Klipkamrai, Bhubodin Somwhang and Saranya Suttisan (Mahidol University, Thailand)

PaperID: 1571267417

11:30 - 11:45

Bugtopia: Game-Based Learning for Venomous Insect Symptom Recognition

Supitcha Wisescharoen, Sirimongkol Thongkwanjai and Sirion Vittayakorn (King Mongkut's Institute of Technology Ladkrabang, Thailand)

PaperID: 1571270342

11:45 - 12:00

Netverse: A Game-Based Learning Environment for Introductory Computer Networking

Kanphitcha Neamsri, Purinprat Arsanok and Sirion Vittayakorn (King Mongkut's Institute of Technology Ladkrabang, Thailand)

PaperID: 1571276317

12:00 - 12:15

Modeling Student Mastery in Calculus Using Knowledge Tracing Techniques

Pitchayuth Panich, Puntharee Roongprasert, Taweechai Nuntawisuttiwong and Keran Khan (King Mongkut's University of Technology Thonburi, Thailand)

PaperID: 1571281148

Session 1B: Object Detection

Bongkotrat B Room

Chairperson

Supaporn Erjongmanee

Kasetsart University, Thailand

11:00 - 11:15

SpotOn: A Geometry-Aware Multi-Camera Person Tracking System for Real-Time Situational Awareness

Krittin Setdhavanich and Yanatchara Jeraja (Kasetsart University, Thailand); Supaporn Erjongmanee, Eakarot Suwanagood and Chaiwat Klumpol (Kasetsart University, Thailand)

PaperID: 1571270556

11:15 - 11:30	Confidence-Based Occlusion Detection in Human Pose Estimation <i>Myat Eain San and Worasak Rueangsirarak (Mae Fah Luang University, Thailand); Supannikar Yingyongsaksri (Mahidol University, Thailand); Jaruta Kunritt (Chiang Mai University, Thailand); Surapong Uttama (Mae Fah Luang University, Thailand)</i> PaperID: 1571271275
11:30 - 11:45	Image-based and LiDAR BEV-based Representations for Object Detection under Real Adverse Weather Conditions <i>Ying Shui, Suphakant Phimoltares and Saichon Jaiyen (Chulalongkorn University, Thailand)</i> PaperID: 1571282155
11:45 - 12:00	Benchmarking YOLO Architectures for Real-Time Grocery Item Detection in a Localized Retail Context <i>Radge Daryll A. Carbone, Yasmien Jen C. Gayao, Gerryle R. Martinez, Joan M. Peralta and Efraim Jedediah Z. Pangan (University of the Cordilleras, Philippines); Jhun Russel D. Clemente (University of the Cordilleras, Philippines)</i> PaperID: 1571282591
12:00 - 12:15	A Real-World Evaluation of a Front-View Ego-Vehicle-Centric Vision-Based ADAS Perception System Using Low-Latency Object Detection <i>Phongpraphat Choohirunwat (Nakhon Sawan Rajabhat University, Thailand); Sirirat Son-in (Bansomdejchaopraya Rajabhat University, Thailand); Guntinan Sakulphaisan (Rajamangala University of Technology Thanyaburi, Thailand); Sorasak Jaingeawkum (KMITL, Thailand)</i> PaperID: 1571282572

Session 1C: Network and System Security

Busabongkot A Room

Chairperson
Chatchai Punriboon
Khon Kaen University, Thailand

11:00 - 11:15	XASSE: Real-Time XSS Attack Detection and Visualization System Using Retraining Machine Learning and Graph-Based Analysis in the Cloud <i>Han Min Myat, Siwanon Trairattana, Jirachaya Na Songkhla, Thananpoom Burapathana, Somchart Fugkeaw (Thammasat University, Thailand)</i> PaperID: 1571247658
11:15 - 11:30	AUVAP: A Policy-Aware Automated Vulnerability Assessment and Penetration Testing Framework <i>Kittipat Jitphonchana, Pakit Suwantanyoung, Puttipat Wongrawewat, Boriwat Thaengthonglang and Somchart Fugkeaw (Thammasat University, Thailand)</i> PaperID: 1571247713
11:30 - 11:45	Strengthening Cyber Defense via Federated Risk-Based Adaptive Multifactor Authentication <i>Chayawit Boonrung, Arthorn Luangsodsai and Pattarasinee Bhattacharakosol (Chulalongkorn University, Thailand)</i> PaperID: 1571271083
11:45 - 12:00	U-HAP: Unified Authorization over Heterogeneous Policies with Efficient Multi-Resource Verification in Kubernetes <i>Krittapak Jairak, Singha Junchan, Phisitphon Pruksorranan and Somchart Fugkeaw (Thammasat University, Thailand)</i> PaperID: 1571271219

12:00 - 12:15	SHARKAPT: An Autonomous LLM-Orchestrated Penetration Testing Framework with MCP-Based Tool Integration <i>Gan Jing Hwan and Tek Yong Lim (Multimedia University, Malaysia)</i> PaperID: 1571281965
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Session 1D: Health and Bioinformatics (1/4)

Busabongkot B Room

Chairperson
 Mosiur Rahaman
King Mongkut's University of Technology Thonburi, Thailand

11:00 - 11:15	Breast Cancer Classification from Mammogram Images Using CNNs with Radiological Descriptors <i>Nirawit Sirisawat and Rajalida Lipikorn (Chulalongkorn University, Thailand)</i> PaperID: 1571245688
11:15 - 11:30	Multimodal Skin Lesion Classification using CNN and MLP Feature Fusion <i>Yanapatt Pankaseam, Pacharadanai Kurakanog, Sirayuth Chotithammaporn, Banphatree Khomkham, Napa Sae-Bae (Srinakharinwirot University, Thailand)</i> PaperID: 1571246173
11:30 - 11:45	A Smart Attention Approach for Automated Identification of Pterygium and Pinguecula in Ocular Images <i>Apinya Tippin, Natanun Janhom, Panutad Sirikul, Nutnicha Suphasueb, Natthaphon Phimkhao, Benjamas Panyangam, Matinee Kiewkanya, Varin Chouvatut (Chiang Mai University, Thailand)</i> PaperID: 1571250641
11:45 - 12:00	Staged Curriculum Learning for Chromosome Detection in Data-Scarce Regimes: Enhancing Model Performance through Difficulty Scoring <i>Chirat Suwannachote, Anchalee Techasen, Malinee Thanee, Thanapong Intharah and Prem Junsawang (Khon Kaen University, Thailand)</i> PaperID: 1571270650
12:00 - 12:15	MacroVision: A Two-Stage Localization and Fine-Grained Classification Pipeline for High-Cardinality Food Ingredient Recognition <i>Vinh Khai Han and Ngan Bui Thanh Pham (FPT University, Swinburne Vietnam, Australia); Minh Anh Hoang (FPT University, Swinburne Vietnam, Vietnam)</i> PaperID: 1571282141

13:30 - 15:00

Session 2A: Generative AI

Bongkotrat A Room

Chairperson
 Teema Leangarn
King Mongkut's University of Technology Thonburi, Thailand

13:30 - 13:45	AP-ProtoSAM: Enhancing ProtoSAM with Mask-Aware Prototypes and Adaptive Prompting for One-Shot Segmentation <i>Khang Vinh Nguyen, Thao Thanh Bui, Minh Anh Hoang (FPT University, Swinburne Vietnam, Vietnam); Khuong Nguyen-Vinh (RMIT University Vietnam, Vietnam)</i> PaperID: 1571248915
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13:45 - 14:00	AI-Generated Content on Social Media: Correlations with Persuasion and Disinformation <i>Peteingthanin Hajumpee, Jesadakom Cheeranoravanich, Charnyote Pluempitiwiriyaewej</i> (Mahidol University, Thailand) PaperID: 1571249227
14:00 - 14:15	TimeAware MoE: Adaptive Structure-to-Details Routing for Diffusion Transformers <i>Ratchanonh Plumanut, Jakramate Bootkrajang</i> (Chiang Mai University, Thailand) PaperID: 1571264394
14:15 - 14:30	Beyond Static Thresholds: RAG-Enhanced Compliance for New-Account Fraud Detection in Payout Systems <i>Manav Kapoor</i> (Amazon, USA); <i>Apurva Shrivastava</i> (USA) PaperID: 1571273472
14:30 - 14:45	TERA-RAG: Temporal and Epistemic Reliability for Multi-Agent Debate <i>Huyen Ngoc Truong, Thien Le Truong Nguyen, Quang Van Huy Nguyen and Truc Pham Thanh Tran</i> (FPT University, Swinburne Vietnam, Australia); <i>Minh Anh Hoang</i> (FPT, Vietnam); <i>Tran Khanh Dang</i> (Van Lang University, Vietnam) PaperID: 1571281017
Session 2B: Image Processing and Computer Vision (1/2) <i>Bongkotrat B Room</i>	
Chairperson Kittichai Lavangnananda King Mongkut's University of Technology Thonburi, Thailand	
13:30 - 13:45	Detection of Sexually Explicit Content in ASCII Art Representations <i>Supanat Jintawatsakoon</i> (Rangsit University, Thailand) PaperID: 1571240990
13:45 - 14:00	Unified Multimodal-Multitask Learning for Vehicle Damage Assessment in Insurance Applications <i>Wongsapat Phuengpanyaloet and Kitsuchart Pasupa</i> (KMITL, Thailand); <i>Thanatwit Angsarawanee</i> (Kasikorn Business Technology Group, Thailand); <i>Panumate Chetprayoon, Theerat Sakdejayont</i> (Kasikorn Labs, Thailand) PaperID: 1571248550
14:00 - 14:15	myNRC-OCR: A Hybrid OCR Framework for Handwritten Myanmar NRCs Integrating YOLOv8, Tesseract LSTM, TrOCR, and Post-OCR Correction <i>Pyae Linn, Zaw Linn Htet and Htoo Thet Naung</i> (University of Information Technology, Myanmar); <i>Htet Arkar Kyaw</i> (Dinger, Myanmar); <i>Charnon Pattiyanon and Tianwei Jing</i> (CMKL University, Thailand) PaperID: 1571249348
14:15 - 14:30	FORGE: Fidelity-Oriented Realistic Generation Enhancement for Surface Defect Synthesis <i>Somrawee Aramkul</i> (Chiang Mai University, Thailand); <i>Prompong Sugunnasil</i> (Data Analytics and Knowledge Synthesis for Healthcare Research Group, Thailand) PaperID: 1571250199

14:30 - 14:45 **Subdomain-aware representation compression for pretrained image embeddings**
Poowanut Niamluang, Jittat Fakcharoenphol (Kasetsart University, Thailand)
PaperID: 1571250843

14:45 - 15:00 **Rethinking Temporal Interaction with Selective State Space Modeling for Efficient Vision-Language Change Understanding in Remote Sensing**
Yuil Tripathee; Naveed Sultan (KMUTT, Thailand); Farhan Iqbal (Chulalongkorn University, Thailand); Santitham Prom-on (KMUTT, Thailand)
PaperID: 1571258155

Session 2C: Software Engineering and Development (1/2)
Busabongkot A Room

Chairperson
Kittitouch Suteeca
Chiang Mai University, Thailand

13:30 - 13:45 **Gap Analysis of SRS in VSE Game Development Against ISO/IEC 29110 and IEEE 830 Standards**
Kittitouch Suteeca; Apitchaka Singjai; Noppon Wongta (Chiang Mai University, Thailand)
PaperID: 1571270631

13:45 - 14:00 **A Multimodal Large Language Model Approach for Automated Security Requirements Verification**
Ismail Esack Dawoodjee, Assadarat Khurat and Thanapon Noraset (Mahidol University, Thailand)
PaperID: 1571279112

14:00 - 14:15 **Exploring Generative AI Factors and Their Impact on Software Development Effort Estimation**
Kritsada Hongsasurath and Twittie Senivongse (Chulalongkorn University, Thailand)
PaperID: 1571281442

14:15 - 14:30 **Mission-Aware SBOM Vulnerability Triage with KEV/EPSS and LLM-Based VEX Drafting**
Karen Kawai, Koki Watarai, Satoshi Okada and Takuho Mitsunaga (Toyo University, Japan)
PaperID: 1571282023

14:30 - 14:45 **Evaluating AI-Generated Code Quality across Prompting Strategies**
Phatcharee Puangjai and Usa Sammapun (Kasetsart University, Thailand)
PaperID: 1571282266

14:45 - 15:00 **A Construction of Timed Automata to Model ISO/IEC 29110 Software Implementation (SI) Process**
Kanokwan Suttidee, Nuengwong Tuaycharoen and Wiwat Vatanawood (Chulalongkorn University)
PaperID: 1571282331

Session 2D: Intelligence Systems and Emerging Data Technologies
Busabongkot B Room

Chairperson
Sansiri Tarnpradab
King Mongkut's University of Technology Thonburi, Thailand

13:30 - 13:45 **Establishing OCR Baselines for Filipino Dance Literature: A Comparative Evaluation of OCR Engines on Archival Texts**
Vince Marc B. Sabado (Notre Dame of Marbel University & Technological Institute of the Philippines); Bobby D. Gerardo (Northern Iloilo State University, Philippines)
PaperID: 1571263166

13:45 - 14:00 **Modeling Student Study Space Occupancy Patterns through Passive Wi-Fi Sensing on a Smart Campus**
Aung Kyaw Si; Pattaramon Vuttipittayamongkol; Anvar Variskhanov (Mae Fah Luang University, Thailand)
PaperID: 1571270395

14:00 - 14:15 **Data-Driven Discovery of Governing Physical Laws Using Scientific Machine Learning**
Grace Yao (The Harker School, USA)
PaperID: 1571271485

14:15 - 14:30 **Quantitative Evaluation and Ranking of PM2.5 and Hotspot Mitigation Action Plans in Thailand Using Dynamic Panel Data Analysis**
Waritthorn Na Nagara; Aussadavut Dumrongsiri (SIIT, Thammasat University, Thailand); Teera Phatrapornnant (NECTEC, Thailand)
PaperID: 1571268112

14:30 - 14:45 **Graph Attention Networks with Physics-Informed Transport for Fire Smoke Aerosol Prediction in Northern Thailand**
Chutikarn Kanchanaart, Chavakorn Arunkunrath, Kasidith Saetang and Charnon Pattiyanon (CMKL University, Thailand)
PaperID: 1571269466

14:45 - 15:00 **Variational Autoencoder-based Latent Vector Interpolation for Accelerating Molecular Dynamics Sampling of GLP-1R Conformational Dynamics**
Minsung Ko, Jaewoo Kim, Joongyeon Choi and Woojae Hong (Sungkyunkwan University, Korea); David D. Mcpherson (UT Health Science Center at Houston, USA); Hyunggun Kim (Sungkyunkwan University, Korea)
PaperID: 1571271147

15:15 - 17:00

Session 3A: Computing
Bongkotrat A Room

Chairperson
Naveed Sultan
King Mongkut's University of Technology Thonburi, Thailand

15:15 - 15:30 **Answer Set Programming for Bus Route Finding: A Case Study in Bangkok, Thailand**
Teeradaj Racharak (Tohoku University, Japan); Su Yee Mon, Rathachai Chawuthai (KMITL, Thailand)
PaperID: 1571261541

15:30 - 15:45	Probabilistic Trip Completion Time Prediction of Battery Electric Vehicle Using PRISM <i>Danuwat Maoleethong (Chulalongkorn University, Thailand); Nuengwong Tuaycharoen and Wiwat Vatanawood (Chulalongkorn University, Thailand)</i> PaperID: 1571270106
15:45 - 16:00	Swarm Intelligence Optimization Using Multiple Distributions Adapted to the Geometric Structure of Objective Functions <i>Reiji Wakatsuki (Graduate School of Engineering, Tokyo City University, Japan); Kenya Jinno (Tokyo City University, Japan)</i> PaperID: 1571270626
16:00 - 16:15	Effect of Optimizer Choice on Island Class Structures in Dimension-Deficient Classifier Geometry <i>Mizuki Dai; Hiroki Tamegai; Kenya Jinno (Tokyo City University, Japan)</i> PaperID: 1571271102
16:15 - 16:30	Formal Verification of Multiplayer Interaction in Spatial Computing using a Chess Case Study <i>Tanakan Sookgasi, Nuengwong Tuaycharoen, Wiwat Vatanawood and Vishnu Kotrajaras (Chulalongkorn University, Thailand)</i> PaperID: 1571280785
16:30 - 16:45	Improving Knapsack QUBO Embeddings on D-Wave Systems via a Chained Partial-Sum Formulation <i>Woratham Khangtragool and Sanpawat Kantabutra (Chiang Mai University, Thailand)</i> PaperID: 1571281976
16:45 - 17:00	Fine-Grained Formal Verification of an Asynchronous Speaker Diarization Pipeline Using Hierarchical Timed Colored Petri Nets <i>Teejuta Sriwaranon, Nuengwong Tuaycharoen and Wiwat Vatanawood (Chulalongkorn University, Thailand)</i> PaperID: 1571282486

Session 3B: Image Processing and Computer Vision (2/2)

Bongkotrat B Room

Chairperson

Suthathip Chuenwattanapranithi
King Mongkut's University of Technology Thonburi, Thailand

15:15 - 15:30	Yoga Classification and Pose Correction Using YOLOv11 and MediaPipe <i>Manissara Saejan, Amylouis Brown, Thitiwat Hapsuwan, Banphatree Khomkham, Napa Sae-Bae, Sasivimon Sukaphat (Srinakharinwirot University, Thailand)</i> PaperID: 1571263590
15:30 - 15:45	BugTracker: Deep Learning Model for Insect Species Classification and Counting from Yellow Sticky Traps <i>Suthathip Chuenwattanapranithi, Ariyaporn Sudsatientanone, Chitsanucha Onrit (KMUTT, Thailand)</i> PaperID: 1571264878

15:45 - 16:00	A Tri-Tier Digital Twin Architecture for AI-Analytic Sensor Placement <i>Chanmetha Promvijitrakarn, Supakrit Lapwongwattana, Sirawit Viriyaphitsathan, Nonthacha Tiangnoi and Pizzanu Kanongchaiyos (Chulalongkorn University, Thailand)</i> PaperID: 1571272121
16:00 - 16:15	Automated Selective Color-wise Colony Counting on Spread Plates using Deep Learning and Human-in-the-loop Integration <i>Panyanat Aonpong (Silpakorn University, Thailand); Putthapong Phumsombat (KMITL, Thailand); Piyaporn Jirawatcharadech, Sunee Pongpinigpinyo, Ponsan Pattanakit and Kittiya Rattanawong (Silpakorn University, Thailand)</i> PaperID: 1571282122
16:15 - 16:30	A Comparative Study of Image Segmentation Techniques for Mango Images under Pendulum and Vibration Conditions <i>La Yaung Chit, Lin Htet Aung, Khant Nyar Ko Ko, Thaung Than Han and Saowapa Chaiwong (Mae Fah Luang University, Thailand); Sujitra Arwatchananukul (Mae Fah Luang University, Thailand)</i> PaperID: 1571282424
16:30 - 16:45	Automated Space Object Image Enhancement for Analysis-Ready Data in Space Situational Awareness using Soft Actor-Critic <i>Setthanun Thongsuwan (Thailand); Pakin Nuamnoi, Burapa Yuenyong and Ratchainant Thammasudjarit (Srinakharinwirot University, Thailand)</i> PaperID: 1571282601

Session 3C: Machine Learning and Data Analytics <i>Busabongkot A Room</i>	Chairperson Pakorn Leesutthipornchai <i>Thammasat University, Thailand</i>
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15:15 - 15:30	A Two-Stage Fine-Tuned Mask R-CNN Pipeline for UAV-Based Urban Tree Inventory <i>Emir Husni, Agus Ambarwari, Reza Darmakusuma, Deni Suwardhi (Institut Teknologi Bandung, Indonesia); Nabil Hewahi (UOB, Bahrain)</i> PaperID: 1571233579
15:30 - 15:45	Physics-Constrained Fire Source Attribution from Sparse Satellite AOD via Spatial Clustering and Neural Residual Correction <i>Chutikarn Kanchanaart, Chavakorn Arunkunrath, Kasidith Saetang and Charnon Pattayanon (CMKL University, Thailand)</i> PaperID: 1571269469
15:45 - 16:00	Intervention-Sensitive Evaluation of Causal Structure in ALICE O2 Computing Systems <i>Pataraphorn Tanutsiriteeradet (KMUTT, Thailand); Vasco Chibante Barroso (CERN, Switzerland); Phond Phunchongharn and Peerapon Siripongwutikorn (KMUTT, Thailand)</i> PaperID: 1571278851
16:00 - 16:15	A Compact Framework for Association Rule Mining with Spurious Rule Filtering <i>Pakorn Leesutthipornchai and Puripat Thongkam (Thammasat University, Thailand)</i> PaperID: 1571281482

16:15 - 16:30	Credit Risk Assessment through Multiple Machine Learning Models and SHAP-based Interpretability <i>Adrian John Musiige, Myo Htut Naing and Naruemon Wattanapongsakorn (KMUTT, Thailand)</i> PaperID: 1571282306
16:30 - 16:45	Drift-Adaptive Deep Learning for Thai Banking Stock Prediction via ADWIN-Triggered Experience Replay <i>Okker Myat, Ar Mahn Thura and Teema Leangarun (KMUTT, Thailand)</i> PaperID: 1571282341
16:45 - 17:00	Multi-Stage Feature Selection for VMD-Based sEMG Hand Gesture Recognition <i>Supaporn Noisen; Nattapol Aunsri (Mae Fah Luang University, Thailand)</i> PaperID: 1571282617

Session 3D: Computer Networks and Communications <i>Busabongkot B Room</i>	Chairperson Vasaka Visoottiviseth <i>Mahidol University, Thailand</i>
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15:15 - 15:30	Hybrid Machine Learning-Based Real-Time Network Anomaly Detection Using System Logs and NetFlow Data in the ELK Stack <i>Sonakul Kamnuanchai (Provincial Electricity Authority, Thailand); Chutiporn Anutariya (AIT, Thailand); Aekavute Sujarae (Punsarn Asia Co., Ltd., Thailand)</i> PaperID: 1571249185
15:30 - 15:45	Hybrid SA-PPO for Communication-Aware Energy-Efficient UAV Control in Agricultural Networked Control Systems <i>Truong Khanh Duy, Tuong Tri Nguyen, Le Manh Thanh, Nguyen Hoang Son, Mai Xuan Van (Hue University, Vietnam)</i> PaperID: 1571256194
15:45 - 16:00	Real-Time Polyp Characterization via a Dual-Stage Framework with a Color-Mode-Aware Router Module <i>Peeraporn Rimdusit and Pasit Jakkrawankul (Chulalongkorn University, Thailand); Phattharat Songthung (NECTEC, Thailand); Natawut Nupairoj and Peerapon Vateekul (Chulalongkorn University, Thailand)</i> PaperID: 1571270499
16:00 - 16:15	Proposal for Parameter Optimization of IEEE 802.1TSN Credit-Based Shaper in Ethernet-Based in-Vehicle Networks <i>Masamune Nakaoji and Yoshihiro Ito (Nagoya Institute of Technology, Japan)</i> PaperID: 1571270857
16:15 - 16:30	Proof-Slot Caching: Optimizing Groth16 zk-SNARK Authentication for Ultra-Low-Latency V2V Communication <i>Nonprawich Intakaew, Lapitsala Chimpad, Pitinun Wiphumitsitsakul and Somchart Fugkeaw (Thammasat University, Thailand)</i> PaperID: 1571272087

16:30 - 16:45

Implementation and Performance Evaluation of a 100 Gbps Network Link on Thailand's National Research and Education Network

Vara Varavithya (Chitralada Technology Institute); Chumpol Ngamphiw (NSTDA); Supacharapong Buanak (MHESI); Damrongrit Setsirichok (Chitralada Technology Institute); Mahutthawat Raksakietisak (SWU); Phichet Musikapunt (KMUTT); Prama Sastraruchi (MHESI); Seree Chinodom (Burapha University)

PaperID: 1571278302

16:45 - 17:00

Temporal Graph Neural Network for Semantic Context-Aware Mobility Prediction in 6G Networks

Nayeema Islam; Mohammed Nasir Uddin; Mufazzer Hossain Anas (Jagannath University, Bangladesh)

PaperID: 1571282605

Friday, June 26, 2026

09:00 - 10:30

Session 4A: Natural Language Processing and Text Analytics (1/2)
Bongkotrat A Room

Chairperson
Pascal Bouvry

University of Luxembourg, Luxembourg

09:00 - 09:15	Development of an Intelligent Agent System for Generating Thai Herbal Articles to Support Modern Wellness Applications <i>Suttipong Kullawattana, Wasit Limprasert (Thammasat University, Thailand)</i> PaperID: 1571247996
09:15 - 09:30	A Comparative Evaluation of Models for Thai Aspect-Based Sentiment Classification in a Noisy Real-World Domain <i>Nantawut Sawatdee, Supakpong Jinarat (Dhurakij Pundit University, Thailand)</i> PaperID: 1571250121
09:30 - 09:45	PIC-Thai: Morphologically-Aware Dynamic Chunking for Semantic Integrity in Thai Retrieval-Augmented Generation <i>Phongsakon Sriwicha, Thanayot Monthichachat, Pichamon Muroh and Santitham Prom-on (KMUTT, Thailand)</i> PaperID: 1571265698
09:45 - 10:00	Self-Distillation of XLM-RoBERTa for Multilingual Sentiment Analysis on Imbalanced Data: A Case Study on Malagasy Mobile Application Reviews <i>Rasolofonimaro Antsa Notiavina, Radius Tanone, Yos Richard Beeh and Budhi Kristianto (Satya Wacana Christian University, Indonesia)</i> PaperID: 1571267269
10:00 - 10:15	GLiNER-Reg: Generalized text regression using reference prompts <i>Poomphob Suwannapichat (University of Luxembourg, Luxembourg); Boonyarit Changaival (KMUTT, Thailand); Caesar (Ming-Wei) Wu and Pascal Bouvry (University of Luxembourg, Luxembourg)</i> PaperID: 1571269542
10:15 - 10:30	AraHarMeme: A Multimodal Benchmark for Harmful Meme Detection in Arabic <i>Samir El-amrany (University of Luxembourg); Ayoub El Khaiari and Aymane El Bekkali (University of Sidi Mohamed Ben Abdellah, Morocco); Salima Lamsiyah, Matthias Brust, Kittichai Lavangnananda, Johnatan E Pecero and Pascal Bouvry (University of Luxembourg, Luxembourg)</i> PaperID: 1571270072

Session 4B: Hardware, IoT, and Embedded Systems
Bongkotrat B Room

Chairperson

Thamrongrat Amornraksa

King Mongkut's University of Technology Thonburi, Thailand

09:00 - 09:15	Phase-Compensating System Design Utilizing Numerator Frequency-Response Error <i>Tian-Bo Deng (Toho University, Japan)</i> PaperID: 1571233631
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09:15 - 09:30	Evaluation of the Reliability of Markerless Stereo Vision for Automated Hand Movement Assessment <i>Felicián Martin Pap, György Wersényi, Péter Prukner and Ferenc Lilik (Széchenyi István University, Hungary)</i> PaperID: 1571245577
09:30 - 09:45	Performance Analysis of Parallel Bucket Dual Pivot String Sorting on ARM and x86 Shared-Memory Architectures <i>Sirilak Ketchaya (Suan Sunandha Rajabhat University, Thailand); Apisit Rattanatanurak (King Mongkut's University of Technology North Bangkok, Thailand)</i> PaperID: 1571270957
09:45 - 10:00	Development of a High-Performance Adaptive I/O Library for AVR and ESP32 Based on Source-Sink Circuit Topology Abstraction <i>Sanya Samaimak, Shanin Harnnarong and Tanatawan Kamolklang (Rajamangala University of Technology Rattanakosin, Thailand)</i> PaperID: 1571282251
10:00 - 10:15	GPU-Accelerated MPC for Comfort-Oriented Adaptive Cruise Control in ADAS <i>Tanakorn Mongkondatsawat, Namchai Sokai, Pairoj Raathanachonkun, Nakorn Indra-Payoong (Burapha University, Thailand)</i> PaperID: 1571264153

Session 4C: Software Engineering and Development (2/2)

Busabongkot A Room

Chairperson
 Rajchawit Sarochawikasil
King Mongkut's University of Technology Thonburi, Thailand

09:00 - 09:15	A Comprehensive Framework for Developing a Formal Ontology for Organizational Values Using Semantic Web Technologies <i>Shichanok Klomjit, Yoothana Suansook, Chatchapong Punpayak, Suchanan Sukmuang, Kittisak Srimai (Defence Technology Institute, Thailand)</i> PaperID: 1571248292
09:15 - 09:30	The Development of Artificial Intelligence-Driven Requirement Management System <i>Julian Vijay, Tek Yong Lim (Multimedia University, Malaysia)</i> PaperID: 1571252884
09:30 - 09:45	Scrum Master's Perspectives on AI-Driven Agile Project Management: A Qualitative Study in an Indonesian Telecommunications Firm <i>Sita Chofifah Oktarulaa and Teguh Raharjo (Universitas Indonesia, Indonesia); Ni Wayan Trisnawaty (University of Indonesia, Indonesia)</i> PaperID: 1571265659
09:45 - 10:00	Evolution Context Gap: An Empirical Study of Agent Manifests <i>Nacha Chondamrongkul, Worasak Rueangsirarak and Prasara Jakkaew (Mae Fah Luang University, Thailand)</i> PaperID: 1571268850

10:00 - 10:15	Evaluating the Time-Performance Trade-off of BERT variants in Duplicate Bug Report Detection <i>Chen Yang; Chartchai Doungsa-ard; Passakorn Phannachitta (Chiang Mai University, Thailand)</i> PaperID: 1571269907
10:15 - 10:30	A Lightweight Smartphone-Based System for Contactless Pig Weight Estimation <i>Phurich Amornnara (CMKL University, Thailand); Boonyarit Changaival (KMUTT, Thailand); Thanakit Thanasuwanditee, Puttipong Srisuwantat, Chayenchanadhip Sevikul and Phasin Noomkan (CMKL University, Thailand)</i> PaperID: 1571282448

Session 4D: Health and Bioinformatics (2/4)

Busabongkot B Room

Chairperson

Varin Chouvatut

Chiang Mai University, Thailand

09:00 - 09:15	sCTFlow: 3D MRI-to-sCT with Conditional Rectified Flow <i>Pharuj Rajborirug (KMITL, Thailand); Supan Tungjitusolmun and Sarun Gulyanon (CMKL, Thailand)</i> PaperID: 1571263927
09:15 - 09:30	Multi-Source Breast Ultrasound Analysis using a Hybrid Segmentation-Classification Pipeline <i>Pannaporn Boonsarngsuk (Kasetsart University, Thailand); Kritsana Treechalong (Kasetsart University, Thailand)</i> PaperID: 1571270898
09:30 - 09:45	MALA-Sight: Hybrid Deep Learning Models for Image-Based Malaria Species Screening in Remote Settings <i>Poomjai Pongsriwat, Natthaphong Thaworn, Natdanai Suksri, Kaokhun Lertratpraphakon, Thida Jopanya, Thiraphat Buachum (The Prince Royal's College, Chiang Mai, Thailand); Varin Chouvatut, Benjamas Panyangam, Matinee Kiewkanya (Chiang Mai University, Thailand); Krittiphong Wachirankul and Rungkan Wangboon (The Prince Royal's College, Chiang Mai, Thailand)</i> PaperID: 1571271454
09:45 - 10:00	PreCervAI: Risk Identification of Cervical Cancer with Comprehensive Morphological Classification Using Cell Images from Cervical Lesions <i>Carl Tiditjumreonpon, Daichi Tanaka, Pongkun Fucheun, Kaokhun Lertratpraphakon, Parnrapee Saefang, Pitkamon Somjitprasirt (The Prince Royal's College, Chiang Mai, Thailand); Varin Chouvatut; Benjamas Panyangam; Matinee Kiewkanya (Chiang Mai University, Thailand); Krittiphong Wachirankul and Rungkan Wangboon (The Prince Royal's College, Chiang Mai, Thailand)</i> PaperID: 1571271524
10:00 - 10:15	Data-Driven Application and Comparison of Machine Learning Models for Drug Dissolution Prediction in Pharmaceutical Quality Risk Management <i>Karnjanaphan Thupphae and Nuwee Wiwatwattana (Srinakharinwirot University, Thailand)</i> PaperID: 1571272196
10:15 - 10:30	Pelvic Tumor Segmentation from Multi-Modal MRI Using Three-Branch U-NET <i>Noppanon Nobnop and Chamaiporn Sukjamsri (Srinakharinwirot University, Thailand); Piya Kiatisevi (Ministry of Public Health, Thailand); Theekapun Charoenpong (Srinakharinwirot University, Thailand)</i> PaperID: 1571274690

10:45 - 12:15

Session 5A: Natural Language Processing and Text Analytics (2/2)
Bongkotrat A Room

Chairperson
Nuttanart Muansuwan
King Mongkut's University of Technology Thonburi, Thailand

10:45 - 11:00	Thai-Duplex-Bench: Evaluating Conversational Dynamics and Role Adherence in Thai Full-Duplex Speech Models <i>Thanapol Popit; Phurinat Polasa; Sansiri Tarnpradab (KMUTT, Thailand)</i> PaperID: 1571270406
11:00 - 11:15	Context-Aware Prompting for Japanese Thai Literary Translation in a Low-Resource Setting <i>Korawit Sikkhamarn and Sirion Vittayakorn (KMUTL, Thailand)</i> PaperID: 1571281040
11:15 - 11:30	Short-Utterance Authentication using Lexical Challenge and Speaker Verification <i>Edgar Snow, Arthorn Luangsodsai and Pattarasinee Bhattarakosol (Chulalongkorn University, Thailand)</i> PaperID: 1571281191
11:30 - 11:45	MANJU: A Multi-Agent Framework for Natural Just-in-Time Understanding in Thai <i>Watin Promfiy (KMUTL, Thailand); Sawit Koseeyaumporn, Sirate Saiprom and Sansiri Tarnpradab (KMUTT, Thailand)</i> PaperID: 1571282148
11:45 - 12:00	A Two-Stage Comparative Study of Thai-Suitable Speech Models for Phoneme-Level Mispronunciation Detection <i>Ponlawat Chopphuk, Thanin Methiyothin and Peerawut Eiamin (Burapha University, Thailand)</i> PaperID: 1571282515
12:00 - 12:15	A Diagnostic Study on Model Failure in Burmese Extractive Question Answering <i>Hsu Yee Mon (Data Science Consortium, CMU, Thailand); Prompong Sugunnasil (College of Arts, Media and Technology, CMU, Thailand)</i> PaperID: 1571282568

Session 5B: Human Computer/Machine Interaction
Bongkotrat B Room

Chairperson
Piyanit Ua-areemit
King Mongkut's University of Technology Thonburi, Thailand

10:45 - 11:00	Hyper Pictoch: Development of a Block-based Pictogram Creation Environment for Fostering Computational Thinking <i>Kazunari Ito (Aoyama Gakuin University, Japan)</i> PaperID: 1571229146
11:00 - 11:15	Vision-based Hand Gesture Virtual Keyboard-Mouse framework with Bilingual Next-word prediction <i>Sammam Mahdi, Reshad Ul Karim, Tareq Sujat, Syeda Maliha Tabassum, Abrar Samin (BRAC University, Bangladesh); Aniqua Nusrat Zereen (Mahidol University, Thailand)</i> PaperID: 1571249103

11:15 - 11:30	Comparing Intent-Driven and Interface-Driven Interaction: An Empirical Study of Traditional UI and Conversational AI Using the Model Context Protocol <i>Kyaw Kyaw Oo, Arthorn Luangsodsai and Pattarasinee Bhattarakosol (Chulalongkorn University, Thailand)</i> PaperID: 1571269137
11:30 - 11:45	P.L.I.C.K.: Personalized Language Interface for Correction and Keyboard Switching <i>Rachaphon Khumsap, Boonchai Pintharotpanya, Kongpum Bunkueakarunrak and Charnyote Pluempitiwiriawej (Mahidol University, Thailand)</i> PaperID: 1571271855
11:45 - 12:00	A Comparative Study on the Use of Generative AI Chatbots in Advising on User Experience and User Interface Design <i>Chanon Kheecharoen and Twittie Senivongse (Chulalongkorn University, Thailand)</i> PaperID: 1571279685
12:00 - 12:15	Analyzing Performance and Stability Trade-offs in Android UI Automation: A Comparative Study of Appium, Espresso, and UI Automator 2 <i>M. Dja'far Karzein Hafidz Yuntanozra, Hanif Abdul Karim Afandi, Herman Kabetta (Politeknik Siber dan Sandi Negara, Indonesia); I Komang Buana (Poltek Siber dan Sandi Negara, Indonesia)</i> PaperID: 1571259281

Session 5C: Machine Learning Foundations

Busabongkot A Room

Chairperson

Wanchaloem Nadda
Khon Kaen University, Thailand

10:45 - 11:00	Comparative Analysis of Liquid Neural Networks and LSTM for Sequential Pattern Recognition: Robustness, Efficiency, and Clinical Utility <i>Ye Kyaw Thu (NECTEC, Thailand & University of Technology Yadanarpon Cyber City, Myanmar); Thazin Myint Oo (Assumption University, Thailand); Thepchai Supnithi (NECTEC, Thailand)</i> PaperID: 1571250577
11:00 - 11:15	Auditing Model Selection Stability Under Split Policy and Leakage Variations <i>Nattakitti Piyavechvirat, Faizan Ul Haq, Qazi Mazhar ul Haq (Yuan Ze University, Taiwan)</i> PaperID: 1571262574
11:15 - 11:30	Activity-Modulated ReLU: Explicit Cross-Layer Dependency for Hierarchical Learning <i>Jirayus Lapamnuaypol; Kenya Jinno (Tokyo City University, Japan)</i> PaperID: 1571269465
11:30 - 11:45	FLEL: Federated Ensemble Learning via Distillation under Model Heterogeneity <i>Cuong Nguyen Hai Vinh (Khon Kaen University, Thailand); Thanh Quang Nguyen (Nguyen Tat Thanh University, Vietnam); Satit Kravenkit, Praisan Padungweang, Phet Aimtongkham and Chakchai So-In (Khon Kaen University, Thailand)</i> PaperID: 1571270649

11:45 - 12:00	Comparative Study of Node-to-Vector Embedding Approach for Graph-based Code Clone Detection <i>Windi Eka Yulia Retnani (University of Jember, Indonesia); Daniel Siahaan (ITS, Indonesia); Hilmi Zharfan Zharfan Rachmadi, Fajra Hanifa Nuridi Radam, Shabira Widyadhari and Anani Asmani (ITS, Indonesia)</i> PaperID: 1571276840
12:00 - 12:15	Enhanced Adversarial Drift Detection for MLOps Feature Monitoring <i>Nusrat Begum and Phaphontee Yamchote (Mahidol University, Thailand); Chainarong Amornbunchornvej (NECTEC, Thailand); Thanapon Noraset (Mahidol University, Thailand)</i> PaperID: 1571280455

13:30 - 15:15

Session 6A: AIoT Systems: IoT Intelligence and Smart Applications (1/2)
Bongkotrat A Room

Chairperson
Kevin Liu and Ssu-Han Chen
Ming Chi University of Technology, Taiwan

13:30 - 13:45	Conditioned Diffusion-Based Data Augmentation for Cross-Domain Robust Brain MRI Classification <i>Berihun Mulu Yayeh, Kevin Fong-Rey Liu (Ming Chi University of Technology, Taiwan)</i> PaperID: 1571260529
13:45 - 14:00	A Hybrid Data-driven and Mechanistic Model for Ammonia Injection Recommendation in a Selective Catalytic Reduction System <i>Yen-Ting Chou, Ssu-Han Chen and Kevin Fong-Rey Liu (Ming Chi University of Technology, Taiwan)</i> PaperID: 1571268418
14:00 - 14:15	A Generalizable Deep Learning for Automatic Reading of Circular Analog Gauges <i>Yen-Jen Chen, Guan Hong, Jen-Fu Yang and Kuan-Yu Tsai (MING CHI University of technology, Taiwan); My N. Nguyen (Nagoya Institute of Technology, Japan)</i> PaperID: 1571269827
14:15 - 14:30	Evaluating Lightweight Rolling-Window Models for Continuous AIoT Adaptation <i>Pauline Lin and Hung-I Liu, Chih-Hsin Lin, Chang-Hsing Lee (Ming Chi University of Technology, Taiwan)</i> PaperID: 1571271087
14:30 - 14:45	Design and Implementation of an Internal Regulation Expert System Based on Retrieval-Augmented Generation <i>Yen-Jen Chen, Chen-Shuo Pai and Jen-Fu Yang (Ming Chi University of Technology, Taiwan); Dawn Sivan (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia)</i> PaperID: 1571271118
14:45 - 15:00	A Vision-Based Algorithm for Straightness Inspection of Steel Bar <i>Yen-Jen Chen, Dong-Jie Chen, Jen-Fu Yang, Zhi-Cheng Jian (Ming Chi University of Technology, Taiwan); My N. Nguyen (Nagoya Institute of Technology, Japan)</i> PaperID: 1571271613

Session 6B: Enjoyable Collaborative Work

Bongkotrat B Room

Chairperson

Mondheera Pituxcoosuvann and Ryosuke Yamanishi
Ritsumeikan University, Japan / Kansai University, Japan

13:30 - 13:45

Co-Creation and Urban Exploration: A Log-Based Comparison of Two In-the-Wild Deployments

Harutaka Tokumaru and Mitsunori Matsushita (Kansai University, Japan)
PaperID: 1571250362

13:45 - 14:00

Complaints in the Persona-Journey Matrix: an enjoyable approach to chained resolution

Nanako Hirao, Naoki Fujimoto and Ryosuke Yamanishi (Kansai University, Japan); Yoko Nishihara (Ritsumeikan University, Japan)
PaperID: 1571268859

14:00 - 14:15

Investigation into the Effects of Task Allocation on Loneliness via Minecraft-based Group Activities

Yoko Nishihara, Megumi Yasuo and Junjie Shan (Ritsumeikan University, Japan)
PaperID: 1571268919

14:15 - 14:30

Visualizing "Like"s and "Don't like"s for Consensus in Group Travel Spot-selection

Shoichiro Tokoda, Jotaro Tasaki and Ryosuke Yamanishi (Kansai University, Japan); Yudai Tsujino (Meiji University, Japan)
PaperID: 1571269913

14:30 - 14:45

Unexpected Turns in AI Conversations: Designing for Adaptive Language Learning

Mondheera Pituxcoosuvann, Midori Tanimura, Jeremy White and Yohei Murakami (Ritsumeikan University, Japan)
PaperID: 1571271404

14:45 - 15:00

Estimating Participants' Satisfaction in Experiential Attractions with Real-Time Facial Expression Analysis

Megumi Yasuo, Yoko Nishihara and Junjie Shan (Ritsumeikan University, Japan)
PaperID: 1571271442

Session 6C: Large Language Models: Advancing Foundations, Safety, and Emerging Capabilities

Busabongkot A Room

Chairperson

Boonchareon Sirinaovakul and Nuttanart Muansuwan
King Mongkut's University of Technology Thonburi, Thailand

13:30 - 13:45

ThaiGEC-Prompt: Few-Shot Prompting with Domain-Specific Examples for Thai Learners

Kantima Techadisai and Booncharoen Sirinaovakul (KMUTT, Thailand)
PaperID: 1571248243

13:45 - 14:00

A Semantic Similarity-Based Evaluation Framework for Hallucination Detection in Lightweight Language Models: A Controlled Study on Fundamental Data Structures

Aulia Akhrian Syahidi, Siranee Nuchitprasitchai and Kanchana Viriyapant (King Mongkut's University of Technology North Bangkok, Thailand)
PaperID: 1571264135

14:15 - 14:30	Error-Driven Iterative Prompt Engineering for Text-to-SQL: From Simple Prompting to Hybrid Pipelines <i>Subhorn Khonthapagdee and Pornpimon Sirithai (Srinakharinwirot University, Thailand)</i> PaperID: 1571281454
14:30 - 14:45	Application of Large Language Models for Aspect-Based Sentiment Analysis on Social Media Data: A Case Study of the Thai Telecommunications Industry <i>Krittapas Limseesawan, Ponrudee Netisopakul, Supannada Chotipant (KMUTL, Thailand); Winn Voravuthikunchai (IBOTNOI COMPANY LIMITED, Thailand); Thitirat Sirivorachodphokin (True Corporation Public Company Limited, Thailand)</i> PaperID: 1571281579
14:45 - 15:00	A Lightweight Vision-Language Model and Retrieval-Augmented Generation Framework for Code-Mixed Online Gambling Detection <i>Noppanut Onenaphi; Somnuek Surathong, Prasert Teppap and Kisda Yingkayun (Rajamangala University of Technology Lanna, Thailand)</i> PaperID: 1571282333
15:00 - 15:15	Learning Outcomes and Barrier Signals in a Game-Based Python Learning Environment with LLM Assistance <i>Ruben James van Wyk and Kornchawal Chaipah (Khon Kaen University, Thailand)</i> PaperID: 1571271496

Session 6D: Health and Bioinformatics (3/4)

Busabongkot B Room

Chairperson

Watcharaphong Yookwan
Burapha University, Thailand

13:30 - 13:45	RT-CAS: Real-Time Context-Aware Scheduling for Mixed Deep Learning Tasks with a Case Study in Colonoscopy <i>Rawit Lertluksanaporn, Peerapon Vateekul, Natawut Nupairoj (Chulalongkorn University, Thailand)</i> PaperID: 1571250740
13:45 - 14:00	Intelligent Speech-to-Text System to Enhance the Efficiency of Medical History Taking <i>Kodcharat Dechapanaya and Rawipa Yaekhoksung (KMUTT, Thailand); Boonyarit Changaival (KMUTT, Thailand); Sangutid Thongsawad (Princess Srisavangavadhana College of Medicine, Chulabhorn Royal Academy, Thailand); Sasikarn Chamchod (Chulabhorn Royal Academy, Thailand)</i> PaperID: 1571281877
14:00 - 14:15	Integrated Multimodal Analysis of Dental Lesions Using Clinical Images and SEM-EDX with Deep Neural Networks <i>Sornkanat Nontthanawut (Thailand); Nilrat Kanyunthong, Sirapat Tansavetwong and Watcharaphong Yookwan (Burapha University, Thailand)</i> PaperID: 1571282389
14:15 - 14:30	Micro-XRF-Based Enamel Mineral Analysis for Early Caries Detection <i>Pongkhun Sakunwong (Thailand); Nilrat Kanyunthong, Sirapat Tansavetwong and Watcharaphong Yookwan (Burapha University, Thailand)</i> PaperID: 1571282395

14:30 - 14:45	Development of an agentic AI framework for microbiome data analysis <i>Phonksapak Chaijaroenmaitri and Chaiyapat Chaladkan (Chulabhorn Royal Academy and KMUTT, Thailand); Boonyarit Changaival (KMUTT, Thailand); Pitithat Puranachot (Chulabhorn Royal Academy, Thailand); Preecha Patumcharoenpol (Mahidol University, Thailand)</i> PaperID: 1571282453
14:45 - 15:00	Analysis of Whisper Embeddings for Multilingual Dementia Detection: Effects of Fine-Tuning, Layer-wise Embedding, and Diarization <i>Gun Wirojburapa and Dittaya Wanvarie (Chulalongkorn University, Thailand)</i> PaperID: 1571282523

15:15 - 16:45

Session 7A: AIoT Systems: IoT Intelligence and Smart Applications (2/2)
Bongkotrat A Room

Chairperson

Yen-Jen Chen and Pauline Lin
Ming Chi University of Technology, Taiwan

15:15 - 15:30	Data-Driven AIoT Prediction System: Overcoming PM2.5 Forecasting Lags via Multi-Stage Feature Fusion <i>Hung-I Liu, Pauline Lin, Yu-Shan Wang, Zheng-Hao Lin and Yu-En Tai (Ming Chi University of Technology, Taiwan)</i> PaperID: 1571273699
15:30 - 15:45	An Edge AI-Based Anomaly Detection System for Predictive Motor Maintenance <i>Kai-Po Chan (Ming Chi University of Technology, Taiwan); Owen Haney (University of Cincinnati, USA); Chang-Hsing Lee, Yue-Qi Wu, Wei-Chen Yeh and Yen-Jen Chen (Ming Chi University of Technology, Taiwan)</i> PaperID: 1571271222
15:45 - 16:00	An Implementation-Informed Edge-IoT ALPR Prototype for Thai Vehicle Access Control Using Dual YOLO Models and OCR on Raspberry Pi <i>Thapanun Pinsawad; Tanagrit Chansaeng (Phuket Rajabhat University, Thailand)</i> PaperID: 1571282618
16:00 - 16:15	A Hybrid SVR-PICNN Framework for Physics-Informed PM2.5 Forecasting <i>Chavakorn Arunkunrax, Chutikarn Kanchanaart, Kasidith Saetang and Charnon Pattiyanon (CMKL University, Thailand)</i> PaperID: 1571245425
16:15 - 16:30	Vehicle Tracking and Classification on Highways using 3D LiDAR <i>Yi-Jheng Huang, Chin-Hung Teng, Yu-Ting Tsai, Yu-Cheng Huang, Tsung-Yen Hsieh, Chi-Feng Ku, Chen-Hao Liao, Charlie Dumingan and Yu-Ju Hsieh (Yuan Ze University, Taiwan); Suiang-Shyan Lee (E-SOFT Corp, Taiwan)</i> PaperID: 1571247780
16:30 - 16:45	A Multi-Stage Hybrid Gap-Filling Framework for Sparse PM2.5 Monitoring Stations in Northern Thailand <i>Kasidith Saetang, Chavakorn Arunkunrax, Chutikarn Kanchanaart, Charnon Pattiyanon (CMKL University, Thailand)</i> PaperID: 1571248679

Session 7D: Health and Bioinformatics (4/4)

Busabongkot B Room

Chairperson

Worasak Rueangsirarak
Mae Fah Luang University, Thailand

15:15 - 15:30	Fracture Detection in Musculoskeletal X-rays Using Deep Learning with Uncertainty Modeling <i>Apichaya Lojjanaakapong (Thailand); Nilrat Kanyunthong, Sirapat Tansavetwong and Watcharaphong Yookwan (Burapha University, Thailand)</i> PaperID: 1571282396
15:30 - 15:45	Automated Human Bladder Area Segmentation in Heterogeneous Environment Ultrasound Image <i>Jiranun Sangrueng, Krisana Chinnasarn and Watcharaphong Yookwan (Burapha University, Thailand)</i> PaperID: 1571282401
15:45 - 16:00	Identifying Children's Hidden Balance Strategy in mCTSIB using Clustering Techniques <i>Werapat Lapawong and Surapong Uttama (Mae Fah Luang University, Thailand); Supannikar Yingyongsaksri (Mahidol University, Thailand); Jaruta Kunritt (Chiang Mai University, Thailand); Worasak Rueangsirarak (Mae Fah Luang University, Thailand)</i> PaperID: 1571282625
16:00 - 16:15	A Comparative Analysis of Ensemble Learning Models with Imbalance Handling Techniques for Liver Disease Classification <i>Khwanchai Suksaen; Wannasiri Thurachon (Udon Thani Rajabhat University, Thailand)</i> PaperID: 1571282639
16:15 - 16:30	Multimodal EEG and Eye-Tracking Analysis Using XGBoost for Cognitive Impairment Screening <i>Montri Phothisonothai (Kasetsart University, Thailand)</i> PaperID: 1571282706

