CONFERENCE PROGRAM

AAIML 2026

2026 International Conference on
Advances in Artificial Intelligence and Machine Learning

March 20 – 22, 2026

Tokyo, Japan

Contents

Welcome Message

Dear delegates,

It is with great pleasure that we welcome you to the 2026 International Conference on Advances in Artificial Intelligence and Machine Learning (AAIML 2026), held in the vibrant and innovation-driven city of Tokyo, Japan, from March 20–22, 2026.

This conference brings together leading researchers, practitioners, and industry experts from around the world to share cutting-edge developments, foster collaboration, and explore emerging directions in Artificial Intelligence and Machine Learning. Over the next three days, you will have the opportunity to engage in inspiring keynote speeches, insightful oral presentations, and interactive poster sessions, covering a broad spectrum of topics ranging from theoretical foundations to real-world applications.

An event of this scale would not be possible without the dedication and hard work of our Program Committee members, reviewers, and sponsors, to whom we extend our deepest appreciation. We also express our sincere gratitude to our keynote speakers, session chairs, authors, and volunteers for their invaluable contributions. Whether you are presenting your research, participating in discussions, or connecting with peers, we hope AAIML 2026 will spark new ideas, strengthen collaborations, and create lasting professional relationships. Your participation is what makes this conference truly exceptional.

We are confident that all participants will find the program enriching and rewarding through the exchange of knowledge and experience.

We look forward to welcoming you and wish you a successful and enjoyable conference.

Best regards,

AAIML 2026 Conference Chairs
Takahiko Fujita, Chuo University, Japan
Naoyuki Ishimura, Chuo University, Japan

Conference Schedule

Friday, March 20th, 2026

Time	Event	Venue
10:00-16:30	Onsite Registration & Materials Pickup	***3310 / 3F*** *Building 3*
10:00-12:00	Online ZOOM Test	***ZOOM Room*** *890 1319 4390*

Saturday, March 21st, 2026

Time	Event	Venue
	Host: Naoyuki Ishimura, Chuo University, Japan	
9:00-9:10	Opening Remarks *Prof. Takahiko Fujita, Chuo University, Japan*	***3300 / 3F*** *Building 3*
9:10-9:50	Keynote Speech I *Human-Machine Collaboration Dynamics - A Sustainable AI Perspective* *Prof. Robert Kozma, University of Memphis, TN, USA*	
9:50-10:30	Keynote Speech II *Real-Scale Social Simulations Using Societal Synthetic Populations in Digital Twin* *Prof. Tadahiko Murata, University of Osaka, Japan*	
10:30-11:10	Group Photo & Coffee Break	
	Host: Prof. Naohiro Yoshida, Keiai University, Japan	
11:10-11:50	Keynote Speech III *Advances in Multimodal Deep Learning: Challenges, Opportunities, and New Directions* *Prof. Richi Nayak, Queensland University of Technology, Australia*	***3300 / 3F*** *Building 3*
11:50-12:10	Invited Talk *Secure Data Collaboration for Optimization AI: Research and Development* *Dr. Minh-Son Dao, Research Manager, NICT, Japan*	

Time	Event	Venue
12:10-13:30	Lunch Break	***Cafeteria / 1F*** *Building 3*
13:30-15:15	Oral Session 1 *Large Language Models and Agent Architectures*	***3308 / 3F*** *Building 3*
	Oral Session 2 *Cybersecurity, Malware Detection, and AI Safety*	***3309 / 3F*** *Building 3*
	Oral Session 3 *Robotics, Sensing, and Autonomous Systems*	***3310 / 3F*** *Building 3*
	Oral Session 4 *Ethical, Accessible, and Sustainable AI Systems*	***3311 / 3F*** *Building 3*
14:00-16:30	Workshop *AI Model Co-creation Hackathon* *--- A Trial of a Privacy Safe, Secure and Democratic Approach for Distributed AI Model Development ---*	***3300 / 3F*** *Building 3*
14:00-15:30	Poster Session 1 *AI Models, Learning Frameworks, and Methodological Advances*	***Cafeteria Area / 1F*** *Building 3*
16:00-17:30	Poster Session 2 *Applied AI in Healthcare, Industry, Environment, and Society*	
16:00-17:45	Oral Session 5 *Deep Learning in Medical Imaging*	***3308 / 3F*** *Building 3*
	Oral Session 6 *Generative AI, Ethics, and Social Implications*	***3309 / 3F*** *Building 3*
	Oral Session 7 *Clinical AI and Healthcare Intelligence*	***3310 / 3F*** *Building 3*
	Oral Session 8 *Computer Vision for Industrial and Environmental Applications*	***3311 / 3F*** *Building 3*
19:00-20:30	Conference Dinner & Awarding *(Best Paper, Outstanding Paper and Best Student Paper)*	***Cafeteria / 1F*** *Building 3*

Sunday, March 22nd, 2026

Time	Event	Venue
8:30-10:00	Oral Session 9 *AI for Energy Systems and Sustainability*	***Room 3308 / 3F*** *Building 3*
	Oral Session 10 *Industrial AI and Smart Manufacturing*	***Room 3309 / 3F*** *Building 3*
	Oral Session 11 *Graph Learning and Knowledge Representation*	***Room 3310 / 3F*** *Building 3*
	Oral Session 12 *Explainable, Robust, and Reliable AI*	***Room 3311 / 3F*** *Building 3*
10:30-12:15	Oral Session 13 *Affective Computing and Multimodal Interaction*	***Room 3308 / 3F*** *Building 3*
	Oral Session 14 *AI-Enhanced Education and Learning Analytics*	***Room 3309 / 3F*** *Building 3*
	Oral Session 15 *AI in Finance, Economics, and Workforce Analytics*	***Room 3310 / 3F*** *Building 3*
	Oral Session 16 *Federated Learning and Privacy-Preserving AI*	***Room 3311 / 3F*** *Building 3*
12:15-13:30	Lunch Break	***Cafeteria / 1F*** *Building 3*
9:30-11:45	Oral Session 17 (Online) *Trustworthy, Secure, and Responsible AI*	***ZOOM Room*** *890 1319 4390*
	Oral Session 18 (Online) *Large Language Models & AI Systems*	***ZOOM Room*** *833 0321 9482*
13:30-15:45	Oral Session 19 (Online) *Medical & Healthcare AI*	***ZOOM Room*** *890 1319 4390*
	Oral Session 20 (Online) *Computer Vision & Multimodal Learning*	***ZOOM Room*** *833 0321 9482*
	Oral Session 21 (Online) *AI for Industry, Business & Finance*	***ZOOM Room*** *827 5257 3402*
16:00-18:15	Oral Session 22 (Online) *Machine Learning Theory & Methods*	***ZOOM Room*** *890 1319 4390*
	Oral Session 23 (Online) *AI for Infrastructure, Environment & Complex Systems*	***ZOOM Room*** *833 0321 9482*

Find Your Session

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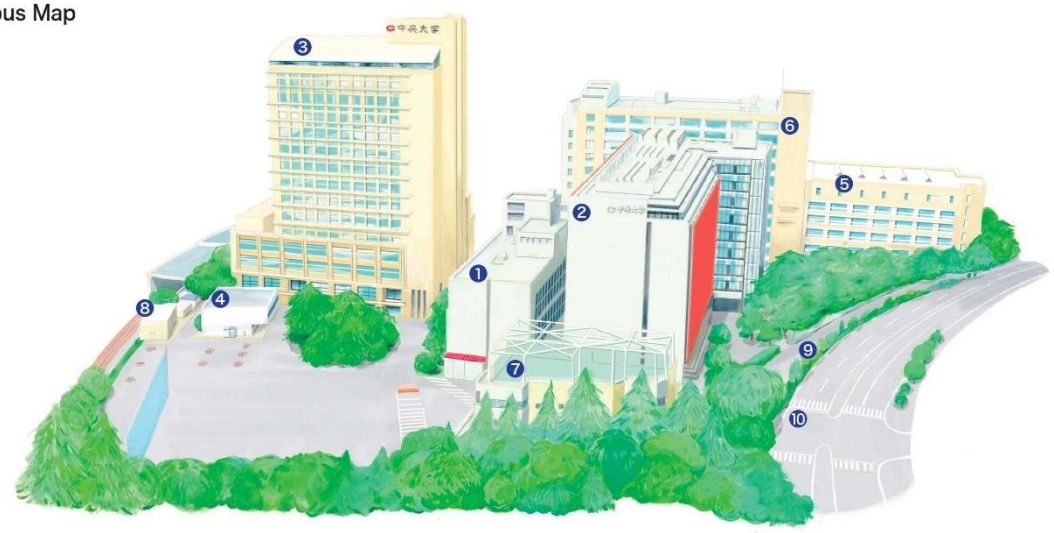
Cyril Joseph, Manipal Institute of Technology

Conference Venue

Korakuen Campus, Chuo University, Japan
Address: 1-13-27 Kasuga,Bunkyo-ku,Tokyo 112-8551, Japan

Korakuen Campus Map



Location: Building 3
Conference Rooms: 3F
Rooms 3308, 3309, 3310, 3311, 3300

Lunch & Dinner: 1F
Cafeteria

Closest Stations

5 minutes walk from Korakuen Station on the Marunouchi and Namboku Subway Lines
7 minutes walk from Kasuga Station on the Oedo and Mita Subway Lines
15 minutes walk from Suidobashi Station on the JR Chuo-Sobu Line (Local)

Presentation Guidelines

For Onsite Oral Presenters

- Please arrive at least 10 minutes before your scheduled session and check in with the Session Chair.
- Upload your slides (PPT/PDF) to the session room laptop in advance. If using your own laptop, please test the projector connection before the session begins.
- Bring a USB drive with your slides as a backup.
- Total allocated time is 15 minutes: 13 minutes for presentation and 2 minutes for Q&A (strictly enforced).
- The Session Chair will evaluate and score each presentation, and the Best Presentation and Outstanding Presentation will be announced at the end of the session.

For Onsite Poster Presenters

- The size of the poster is 84.1cm wide x 118.9cm high (A0) in portrait orientation.
- Bring your high-resolution printed poster with you to the conference.
- Presenters are requested to locate their assigned poster number and mount their poster on the designated panel using the thumbtacks or tape provided by the conference at least 20 minutes prior to the start of their session.
- Prepare a 4-minute Flash Talk. After the open discussion period, the poster chair will evaluate and score each poster, and announce the best poster at the end of the session.
- Presenters must remain at their posters throughout the entire session.

For Online Oral Presenters

- All times are in **Japan Standard Time (JST)**. Double-check your local time conversion.
- Join the Zoom test room: 890 1319 4390 on March 20 to verify: Audio/video quality, Screen sharing functionality, and Slide formatting.
- Use a quiet, well-lit space with minimal background noise.
- Enter the Zoom room 10 minutes before your session starts.
- Rename yourself: "Paper ID-Your Name" (e.g., L0001-Jane Smith).
- Mute yourself upon entry; unmute when introduced by the Session Chair.
- Total allocated time: 15 minutes, including 13 minutes for presentation and 2 minutes for Q&A. (strictly enforced)
- The session chair will evaluate and score each presentation, and announce the best presentation at the end of the session.

Keynote Speech I

"Human-Machine Collaboration Dynamics - A Sustainable AI Perspective"

Prof. Robert Kozma, University of Memphis, TN, USA

9:10-9:50, March 21st | 3300, 3F, Building 3

Abstract: The explosive growth of generative AI technologies leads to the development of conversational AI agents with performance reaching or exceeding human capabilities. The massive proliferation of generative AI to all segments of the society has the potential of drastically improving human quality of life. In spite of the present achievements and future opportunities of AI, there a growing public anxiety toward AI technologies, based on the fear that AI development may get out of control. Representatives of this view warn us that, instead of supporting human activity ad performance, AI may replace humans, and make humans existence superficial. To adequately address such worries, AI research should focus of developing productive collaboration between humans and intelligent machines.

This talk outlines a dynamical systems perspective on AI as applied to human-machine collaboration. The basic tenets of our approach include: (1) Applying biologically and cognitively-inspired principles to build new generation of AI systems, including robotic platforms. This aspect is motivated by the fact that we want the intelligent systems/robots effectively interact with humans, therefore, they must be familiar with and learn from human experience. Embodiment is a crucial aspect of biological intelligence, and mainstream AI typically does not represent embodiment in a practically meaningful way. We outline possible avenues of such embodiment based on embodied cognition and situated robotics. (2) In order to develop artificial systems, which interact efficiently with human partners, it is important to be able to model the operation of the biological intelligence, the interaction of the brain and body.

The complexity of brains exceeds the complexity of any substances in the Universe as we know it. Tools of mathematics which dominated scientific discoveries for centuries, i.e., calculus, differential equations, may not be adequate to describe some of the observed phenomena in brain spatio-temporal dynamics, with rapid changes, and singularities. Novel mathematical developments of graph theory and percolations describing phase transitions and switching dynamics, called neuropercolation, showed strong potential to provide a new mathematical toolset for modeling cognitive and brain dynamics. A brain-inspired hierarchy of graph models, Freeman K models, and neuropercolation is outlined in the talk. (3) We expand the dynamic principles to behavior generation in human-robot interactions which emerge as a result of implementing cognitively-motivated multi-sensory integration and action selection. We describe learning behaviors based on the dynamics of the human-robot interaction. This talk is concluded with recommendations towards building embodied AI platforms, which can be true partners of human beings in future endeavors.

Bio: *Robert Kozma (Fellow IEEE; Fellow INNS). He holds a Ph.D. in Applied Physics (Del University of Technology, The Netherlands), two M.Sc. degrees (Mathematics, Eotvos University, Hungary; and Power Engineering, Moscow, MEI, Russia). He is Professor of Mathematics, funding Director of Center for Large-Scale Intelligent Optimization and Networks (CLION), FedEx Institute of Technology, University of Memphis, TN, USA. He is also Professor at Research and Innovation Center, Obuda University, Budapest, Hungary. Past visiting positions include Professor of Computer Science, University of Massachusetts Amherst, MA; US Air Force Research*

Laboratory, Sensors Directorate, WPAFB, OH; NASA Jet Propulsion Laboratory, Robotics Division, Caltech, Pasadena, CA; Sarnoff Co., Princeton, N.J. Previous affiliations at University of California at Berkeley, EECS and Division of Neurobiology; Otago University, Informa on Sciences, New Zealand; Tohoku University, Quantum Science and Engineering, Japan. He has 40 years of experience in intelligent signal processing, autonomous systems, large-scale networks and graphs, distributed sensor systems, cognitive computing, and biomedical applications. Published 9 books/edited volumes, over 350 papers, has 3 patents. Gave over 200 presentations at conferences, about half of them are plenary, keynote, and invited talks. Received research funding of over $7M, by agencies NASA, DARPA, AFRL, AFOSR, NSF, ONR, and others. Dr. Kozma has been the President of the International Neural Network Society, served on the AdCom of the IEEE Computational Intelligence Society, on the Governing Board of IEEE SMC Society, and Internatitional Neural Network Society. He is presently Editor-In-Chief of IEEE Transactions of Systems, Man, and Cybernetics – Systems. He received various awards, including the INNS Dennis Gabor Award.

Keynote Speech II

"Real-Scale Social Simulations Using Societal Synthetic Populations in Digital Twin"

Prof. Tadahiko Murata, University of Osaka, Japan

9:50-10:30, March 21st | 3300, 3F, Building 3

Abstract: It is essential for researchers to consider human factors in real-scale social simulations that take into account people living and working in target communities. In order to do so, researchers need to know attributes of living and working people such as age, sex, race, living place, occupation, income and workplace. However those attributes are a kind of privacy data that are not available to researchers. To tackle with such difficulty in accessibility, data synthesis is getting attentions recently. Data synthesis is a method to synthesize data based on the statistical characteristics of collected data. The lecturer gives a talk how to synthesize the population data using statistics, and several applications of synthesized population data in real-scale social simulations including COVID-19 counter-measures.

Bio: Tadahiko Murata (IEEE Fellow) received his B.S., M.S., and Ph. D degrees from Osaka Prefecture University, Osaka, Japan in 1994, 1996, and 1997, respectively. He joined the Department of Industrial Engineering in Ashikaga Institute of Technology in 1997, then moved to Department of Informatics in Kansai University in 2001. He became a full professor at Kansai University in 2009. He then moved to Osaka University in 2023 as a full professor. In Osaka University, he is working for Cybermedia Center that is a supercomputing center not only for university researchers but also for public usages. He is giving classes at Graduate School of Information Science and Technology, and Undergraduate School of Engineering. His interests include multi-objective optimization, social simulations, digital twin, and high-performance computing. He was a member of Board of Governors in IEEE SMC Society from 2015 to 2020, President of Japanese Society for Evolutionary Computation from 2020 to 2022, currently Vice President for Organization and Planning, IEEE SMCS from 2022 to 2025, and Vice President of Japan Society for Fuzzy Theory and Intelligent Informatics from 2023 to 2026.

Keynote Speech III

"Advances in Multimodal Deep Learning: Challenges, Opportunities, and New Directions"

Prof. Richi Nayak, Queensland University of Technology, Australia

11:10-11:50, March 21st | 3300, 3F, Building 3

Abstract: Multimodal learning has rapidly emerged as a powerful paradigm for integrating diverse information sources—such as text, images, audio, and structured data—to drive more accurate and context-aware AI systems. Its impact is evident across fields including social media analytics, healthcare diagnostics, and intelligent e-commerce. In this keynote, I will present recent advances through deep learning frameworks that incorporate gating mechanisms and uncertainty-aware strategies. These approaches enable more reliable fusion, balanced representation learning, and stronger generalisation across diverse multimodal tasks. The talk will outline key directions for building the next generation of robust, flexible, and high-performance multimodal AI systems.

Bio: *Richi Nayak is Leader of the Applied Data Science Program at the Centre of Data Science and Professor at Queensland University of Technology, Brisbane Australia. She has a driving passion to address pressing societal problems by innovating Artificial Intelligence field underpinned by fundamental research in machine learning. Her research has resulted in the development of novel solutions to address industry-specific problems in Marketing, K-12 Education, Agriculture, Digital humanities, and Mining. She has made multiple advances in social media mining, deep neural networks, multi-view learning, matrix/tensor factorization, clustering and recommender systems. She has authored over 180 high-quality refereed publications that have attracted over 3330 citations and a h-index of 30. Her research leadership is recognised by multiple best paper awards and nominations at international conferences, QUT Postgraduate Research Supervision awards, and the 2016 Women in Technology (WiT) Infotech Outstanding Achievement Award in Australia. She holds a PhD in Computer Science from the Queensland University of Technology and a Masters in Engineering from IIT Roorkee.*

Invited Talk

"Secure Data Collaboration for Optimization AI: Research and Development"

Dr. Minh-Son Dao, Research Manager, NICT, Japan

11:50-12:10, March 21st | 3300, 3F, Building 3

Abstract: AI systems increasingly rely on large-scale real-world data, yet much of the most valuable data—such as mobility, behavioral, and environmental data—remains fragmented across organizations due to privacy, security, and governance constraints. This talk presents the MIC project (Ministry of Internal Affairs and Communications), a national research initiative in Japan aimed at enabling secure cross-organizational AI learning without sharing raw data.

The project develops a distributed AI framework that combines edge AI, multimodal foundation models, and federated learning to enable continuous model evolution across heterogeneous data environments. Instead of centralizing sensitive datasets, the proposed approach allows AI models to learn collaboratively from distributed edge nodes, while preserving privacy and respecting data ownership.

Bio: *Dr. Minh-Son DAO is a Senior Researcher and Research Manager at the Big Data Integration Research Center, National Institute of Information and Communications Technology (NICT), Japan. With over two decades of research and leadership experience across academia and government, he leads cutting-edge initiatives in artificial intelligence, big data analytics, and smart IoT systems. He has played a pivotal role in Japan's Society 5.0 vision through projects like MMCRAI and collaborative smart-city platforms. Dr. DAO is also a committed educator, serving as a thesis supervisor and adjunct lecturer across multiple international universities. His work has earned him numerous accolades, including multiple Best Challenge Awards, national recognitions, and research excellence honors. With over 100 peer-reviewed publications and international partnerships spanning Europe and Asia, he continues to bridge academic rigor with real-world impact. His current focus lies in multimodal AI frameworks and data-driven societal innovation. His involvement as a guest editor for high-impact journals such as IEEE ACCESS, ACM TOMM, and Frontiers in Big Data, along with his participation as program committee member for numerous international conferences, highlights his role as a thought leader in multimedia, AI, and big data. Dr. DAO frequently chairs and organizes conferences and workshops, including ICMLSC, ICCRD, and MediaEval.*

Workshop

AI Model Co-creation Hackathon --- A Trial of a Privacy Safe, Secure and Democratic Approach for Distributed AI Model Development ---

Co- organizers:
Minh-Son Dao, Research Manager, NICT, Japan
Taizan Suzuki, Director, General Manager, Knowledge Processing Dept., Picolab Co., Ltd.

14:00-16:30, March 21st | 3300, 3F, Building 3

Workshop Introduction

我々，安全なデータ連携による最適化 AI 推進コンソーシアムでは，総務省の委託の元で，AI モデル共創という革新的な AI 開発手法を提唱し研究・技術開発，社会実証を行っています．AI モデル共創はプライバシーや機密情報を保護しつつデータを保有している個人や企業が連携して民主的に高性能な AI の開発を可能にします．

本年 2 月から 3 月にかけて AI モデル共創技術を活用した AI モデル共創ハッカソンを実施し，複数のチームの連携による AI モデル共創の試行を行いました．本 workshop では AI モデル共創手法の紹介や，ハッカソンの報告などを行いつつ，巨大 AI 企業によるクラウド型 AI サービスとは異なる新たな AI モデル開発・利活用の形態である AI モデル共創の 可能性について議論します．

The Consortium for Promotion of Optimized AI by Secure Data Coordination has been pursuing the research, development, and real-world deployment of an innovative AI development methodology referred to as AI Model Co creation under the commission of the Japanese Ministry of Internal Affairs and Communications. This approach enables individuals and organizations in possession of data to collaborate to develop AI models in a democratic manner, while ensuring rigorous protection of confidential information and privacy. Through this methodology, it becomes possible to jointly develop high-performance AI models without requiring any party to disclose sensitive data, thereby addressing critical challenges associated with data governance, trust, and regulatory compliance.

Between February and March of this year, we organized an AI Model Co creation Hackathon, during which multiple participating teams conducted collaborative experiments using the co creation framework. This hackathon served both as a technical validation of the methodology and as a practical demonstration of its applicability across diverse organizational contexts. The outcomes highlighted the feasibility of AI models co-creation that leverage distributed data sources while maintaining strict privacy safeguards.

In this workshop, we will provide an in-depth overview of the AI model co creation methodology, including its conceptual foundations, technical mechanisms, and potential societal impact. We will also present the key findings and lessons learned from the hackathon. Furthermore, we will discuss the broader implications of AI model co creation as a novel paradigm for AI development and utilization—one that stands in contrast to conventional cloud-based AI services offered by large technology companies. Through these discussions, the workshop aims to illustrate how AI model co creation can support a more inclusive, trustworthy, and participatory ecosystem for future AI innovation.

Workshop Speeches

01

"AI Model Co-creation Hackathon".
-- A Trial of Collaborative AI Model Learning Accross Different Organizations --
Speaker: Taizan SUZUKI
Picolab Co. Ltd., Japan

02

A Scalable and User-Friendly GUI for Federated Edge AI Simulation and Research
Speaker: Khanh PHAN
TokyoTechies Co., Japan

03

Hybrid Driver Fatigue Detection: A Functional Implementation
Speaker: NGUYEN Dinh Mau
FPT Japan Holdings Co. Ltd., Japan

04

Advanced Federated Learning for Distributed and Privacy-Preserving AI Systems
Speaker: Anh-Khoa TRAN
NICT, Japan

05

MM-Sensing: A Memory-Efficient Multi-Modal Transformer for Near-Miss Prediction
Speaker: Phuong NGUYEN
NICT, Japan

Onsite Oral Session Details

Oral Session 1: Large Language Models and Agent Architectures

Chair: Cheikh Brahim El Vaigh, Univsersité de Bourgogne Europe/CIAD, France
Room: 3308, 3F, Building 3
Time: 13:30-15:00, March 21st

L8211
13:30-13:45
Beyond Shared Embedding Spaces: Towards LLM Architectures with Explicit Authority Control for Prompt Security
Presenter: Jonas Kemnitzer
Hof University, Germany

L1742
13:45-14:00
From Impulse to Introspection: Two-Round Peer-Aware Architectures for Large Language Model Trading Agents
Presenter: Jung-Hua Liu
National Chung Cheng University

L6918-A
14:00-14:15
A Human-in-the-Loop Agentic Framework for Automated Curation of ASD Dialogue Datasets
Presenter: Cheng-Hao Peng
National Cheng Kung University, Taiwan

L3819
14:15-14:30
Autonomous Knowledge Pipeline for AI Research: LLM Agents for Automatic Paper Curation, Multimodal Media Generation, and Online Publishing
Presenter: Yuhei Yamada
Tokyo University of Technology, Japan

L7532
14:30-14:45
BizQuery: Agentic Financial Question Answering over Structured Data
Presenter: Akash Mondal
Intuit India

L4909
14:45-15:00
A State-Driven Planning Framework for Research Dialogue Agents with Selective Retrieval-Augmented Generation
Presenter: Hiryu Kimura
Tokyo University of Technology, Japan

Oral Session 2: Cybersecurity, Malware Detection, and AI Safety

Chair: Ainur Zhumadillayeva, L.N. Gumilyov Eurasian National University, Kazakhstan
Room: 3309, 3F, Building 3
Time: 13:30-15:15, March 21st

L1137
13:30-13:45

Adaptive Hierarchical Evaluation of LLMs and SAST tools for CWE Prediction in Python
Presenter: Muntasir Adnan
University of Canberra, Bruce, ACT, Australia

L6211
13:45-14:00

Design and Implementation of a Fine-Tuned BERT-based Web Filter toward Parental Control Applications
Presenter: Nuntanut Bhooanusas
Thammasat University, Thailand

L4208
14:00-14:15

Evasion of Malware Classifiers by Injecting Category-Specific Benign Features
Presenter: Juozas Dautartas
Vilnius University, Lithuania

L1857
14:15-14:30

Ransomware Detection with ML and Deep Learning: An Evidence-Based Survey and Drift-Aware Taxonomy
Presenter: Suratose Tritilanunt
Mahidol University, Thailand

L1823
14:30-14:45

Enhancing Security of Android Devices against Obfuscated Malware Attacks by using Machine Learning Techniques
Presenter: Ajay Kaul
Shri Mata Vaishno Devi University, India

L2188
14:45-15:00

Deadlock Prevention in Multi-Agentic Systems for Regulated Content Authoring
Presenter: Shivam Shivam
ZS Associates, India

L0662
15:00-15:15

Advancing Security in Android Devices for malware detection using Machine Learning and Deep Learning Techniques
Presenter: Naveen Kumar Gondhi
Shri Mata Vaishno Devi University, India

Oral Session 3: Robotics, Sensing, and Autonomous Systems

Chair: Ahmet Cetinkaya, Shibaura Institute of Technology, Japan
Room: 3310, 3F, Building 3
Time: 13:30-14:45, March 21st

L2086
13:30-13:45

A Novel, Multistep Neural Network Approach to Improve Anomaly Detection in Online Operational Status
Presenter: Aditya Singla
Cupertino High School, United States

L1238-A
13:45-14:00

How Far Can We Go in Robot Learning with Digital-Twin–Based Synthetic Procedural
Presenter: Peter Galambos
Óbuda University, Portugal

L2351
14:00-14:15

Application of Intelligent Robotics in the Recognition of Medical Instruments: Technical Approach
Presenter: Diogo Martinho
Instituto Superior de Engenharia do Porto (ISEP), Portugal

L8252-A
14:15-14:30

ParaPo!: Jeep Route & Path Finder
Presenter: Greigh Kyle Navarro
University of the East – Manila Campus, Philippines

L3129-A
14:30-14:45

AI-Driven Acoustic Perception for Autonomous Drone Detection and Tracking
Presenter: Marian Traian Ghenescu
Institute of Space Science - Subsidiary of INFLPR, Romania

Oral Session 4: Ethical, Accessible, and Sustainable AI Systems

Chair: José Carlos Vázquez-Parra, Tecnologico de Monterrey, México
Room: 3311, 3F, Building 3
Time: 13:30-15:15, March 21st

L6850
13:30-13:45

Automatic Construction of Pattern Classifiers Capable of Continuous Class Incremental Learning and Unlearning
Presenter: Tetsuya Hoya
CST, Nihon University, Japan

L5620
13:45-14:00

Towards Accessible and Ethical AI Tools for Disability Services: a Stakeholder-informed Study
Presenter: Nina Ždanovič
Keio University, Japan

L9104
14:00-14:15

State-of-Health Prediction and Generalization of Lithium-Ion Batteries Based on Data Fusion and Deep Transfer Learning
Presenter: Shih-Hsien Hsu
Feng Chia University, Taiwan

L2985
14:15-14:30

Playing Telephone with AI: How Uninformed Use of AI Tools May Distort Educational Outcomes
Presenter: Alkiviadis Tsimpiris
International Hellenic University, Greece

L6736-A
14:30-14:45

Integration of Artificial Intelligence into Cybersecurity Curricula: A Comprehensive Case Study
Presenter: Ping Wang
Robert Morris University, United States

L7120
14:45-15:00

Scaffl.ed: A Multimodal, LLM-Driven Intelligent Tutoring System for Java Debugging Using
Presenter: John Mark M. Gatche
University of the East Manila, Philippines

L6769
15:00-15:15

Bridging AI and Sustainability: The Role of Explainable AI in Climate Policy and Ethical Decision-Making
Presenter: Alfredo L. Calimbo
FEU Institute of Technology, Philippines

Oral Session 5: Deep Learning in Medical Imaging

Chair: Ajay Kaul, Shri Mata Vaishno Devi University, India
Room: 3308, 3F, Building 3
Time: 16:00-17:45, March 21st

L2282-A
16:00-16:15
NeuroXNet: A Hybrid Model for Automated Hydrocephalus Detection
Presenter: Mohsen H. Alhazmi
Applied College, Jazan University, Saudi Arabia

L2422
16:15-16:30
URes2Net: U-Net Architecture with Res2Net for Skin Lesion Segmentation
Presenter: Seyma Karagozoglu
Gazi University, Turkey

L3513
16:30-16:45
Multi-Resolution Feature Stem for Diabetic Retinopathy Lesion Segmentation
Presenter: Taehee Jeong
San Jose State University, United States

L7372
16:45-17:00
A Feasibility Study on YOLO-Based Primary Tumor Classification from CECT of Brain Metastases
Presenter: Chaipatr Setprapha
Chulabhorn Royal Academy, Thailand

L1266
17:00-17:15
Trajectory-centric Probing of Frozen Chest CT Foundation Embeddings for Multiendpoint Lung Cancer Phenotyping
Presenter: Kuan-Ting Wu
National Yang Ming Chiao Tung University, Taiwan

L9620
17:15-17:30
A Comparative Study of Machine Learning and Deep Learning Models for Predicting Diabetic Retinopathy Severity in Retinal Fundus Image Datasets
Presenter: Oluwafisayo Babatope AYOADE
Western Sydney University, Australia

L2763
17:30-17:45
Real-time Semantic Segmentation of Laparoscopic Instruments in Training Environments: Dataset Generation and Benchmarking
Presenter: Dehlela Shabir
Qatar University, Qatar; Hamad Medical Corporation, Qatar

Oral Session 6: Generative AI, Ethics, and Social Implications

Chair: Tadahiko Murata, University of Osaka, Japan
Room: 3309, 3F, Building 3
Time: 16:00-17:45, March 21st

L5959-A
16:00-16:15

Narrating Future Technologies with Cross-modal Generative Modeling
Presenter: Myeongsang Yoo
SeoulTECH, Republic of Korea

L0989-A
16:15-16:30

Sociodemographic Biases and Employment Discrimination in Large Language Models: Experimental Evidence from ChatGPT Simulations
Presenter: Xavier Javines Bilon
University of the Philippines Diliman, Philippines

L4991
16:30-16:45

Ordinal-Aware Fine-Tuning of Multilingual LLaMA Models for Thai Cyberbullying Severity Classification
Presenter: Bandhita Plubin
Chiang Mai University, Thailand

L6882
16:45-17:00

An LLM-Based Framework for Generating Synthetic Legal Contract Benchmark Datasets: A Low-Resource Language Case Study
Presenter: Zofran Aqsha
The National University of Malaysia, Malaysia

L9614
17:00-17:15

Narrative AI and Environmental Awareness in Higher Education: Evaluating a Customized GPT Intervention
Presenter: José Carlos Vázquez-Parra
Tecnologico de Monterrey, México

L6478-A
17:15-17:30

Serendipitous Recommendation via Uplift Modeling
Presenter: Jungmin Hwang
SeoulTECH, Republic of Korea

L6893
17:30-17:45

A Transformer-Based Aspect-Level Sentiment Analysis Framework for Analyzing Public Discourse on Generative AI
Presenter: Neltjie Mendy Matrutty
Universitas Gadjah Mada, Indonesia

Oral Session 7: Clinical AI and Healthcare Intelligence

Chair: Richi Nayak, Queensland University of Technology, Australia
Room: 3310, 3F, Building 3
Time: 16:00-17:45, March 21st

L8601
16:00-16:15

Longitudinal Graph Neural Networks for Prognostic Modeling of Alzheimer's Disease Progression
Presenter: Medet Ashimgaliyev
L.N. Gumilyov Eurasian National University, Kazakhstan

L5549
16:15-16:30

Uncertainty-Aware Visual Sequence Models for Depression Severity Assessment
Presenter: Fabian Schmidt
KTH Royal Institute of Technology, Sweden

L0824
16:30-16:45

Self-Organizing Map Feature Selection Method for Diagnosing Early-Stage Parkinson's Disease Patients
Presenter: Weikang Hou
Kobe University, Japan

L2301
16:45-17:00

Neuro-Symbolic Agentic Framework for Decoupled Perception and Clinical Reasoning in Medical AI
Presenter: Morris Jhennong Chen
National Cheng Kung University, Taiwan

L5856
17:00-17:15

Towards a Unified Heavyweight Ontology For Therapeutic Targeting
Presenter: Cheikh Brahim El Vaigh
Univsersité de Bourgogne Europe/CIAD, France

L7634
17:15-17:30

Beyond Data Scarcity: Optimizing R3GAN for Medical Image Generation from Small Datasets
Presenter: Tsung-Wei Pan
National Taiwan Ocean University, Taiwan

L3294
17:30-17:45

A Diffusion Model-based Data Augmentation Framework to Enhance Few-Shot Fine-Grained Image Classification
Presenter: Chun-Rong Huang
National Yang Ming Chiao Tung University, Taiwan

Oral Session 8: Computer Vision for Industrial and Environmental Applications

Chair: Peter Galambos, Óbuda University
Room: 3311, 3F, Building 3
Time: 16:00-17:15, March 21st

L2321

16:00-16:15

CAR-Net: A Cascade Refinement Network for Rotational Motion Deblurring under Angle Information Uncertainty
Presenter: Ahmet Cetinkaya
Shibaura Institute of Technology, Japan

L0065

16:15-16:30

BELLEVUE: An Automated Product Detection and Inventory Tracking System Using Deep Learning
Presenter: Muhammad Abdurrahman
American University in Dubai, United Arab Emirates

L9474

16:30-16:45

Predicting Wildfire Burn Severity from Pre-Fire SAR Signatures: A Deep Learning Approach
Presenter: Debzani Deb
Winston-Salem State University, United States

L1238

16:45-17:00

RPGD: RANSAC-P3P Gradient Descent for Extrinsic Calibration in 3D Human Pose Estimation
Presenter: Zhanyu Tuo
Sorbonne University, France

L4566

17:00-17:15

Post-Disaster Damage Assessment using Deep Learning
Presenter: Valliyammai Chinnaiah
Anna University, India

Oral Session 9: AI for Energy Systems and Sustainability

Chair: Janice A. Abellana, FEU Institute of Techonology, Philippines
Room: 3308, 3F, Building 3
Time: 8:30-10:00, March 22nd

L6559-A
8:30-8:45

AI- driven Forecasting of Urban Residential Water Use Leveraging Smart Meter and Satellite-derived Environmental Variables
Presenter: Trang Thi Phuong Pham
Griffith University, Queensland, Australia

L2537
8:45-9:00

A Personalised AI-Driven Water Conservation System Using Dynamic Rule-Based Recommendations
Presenter: Sareh Sadat Naserizadeh
Griffith University, Australia

L3729
9:00-9:15

DRL-Based Microgrid Energy Management under Uncertain Supply and Demand
Presenter: Christopher G. Harris
University of Northern Colorado, United States

L5521
9:15-9:30

Physics-Informed Neural Networks for Multi-Horizon Volatility Modeling with Uncertainty Quantification
Presenter: TzeHoung Lee
Singapore University of Social Science, Singapore

L2322
9:30-9:45

Forest Fires Forecasting: A Radical Approach to Combat Climate Change
Presenters: Nahid Boustani and Jithendra Katta
George Washington University & Impact Ventures LLC, United States

L5887
9:45-10:00

Machine-Learning Forecasts of Heavy-Goods Traffic for Prioritising EV Fast-Charging Locations
Presenter: Maryam Roudneshin
University College Dublin, Ireland

Oral Session 10: Industrial AI and Smart Manufacturing

Chair: Bor-Shen Lin, National Taiwan University of Science and Technology Taipei, Taiwan
Room: 3309, 3F, Building 3
Time: 8:30-10:00, March 22nd

L9119
8:30-8:45
Tiny Machine Learning for Real-Time Performance Prediction of Electrochemical System
Presenter: Hakan Karasu
University West, Sweden

L3869
8:45-9:00
Data-driven Troubleshooting using the LightGBM Algorithm for Industrial Machine Failure Prediction
Presenter: Sania Partovian
Mälardalen University, Sweden

L7094
9:00-9:15
A Reproducible Benchmark for Tool Wear Prediction Using NASA Milling Dataset
Presenter: Rosyidatul Munawaroh
National Formosa University, Taiwan

L5733
9:15-9:30
Intelligent Manufacturing: Simulating a Discrete-Continuous Model with Feedback Control
Presenter: Juliana Keiko Sagawa
University of São Paulo, São Carlos, Brazil

L8649
9:30-9:45
Evaluating Agentic AI Systems in Manufacturing: A Review of Taxonomy, Challenges and Future Directions
Presenter: Nastaran Moradzadeh Farid
Technical University of Denmark, Lyngby, Denmark

L3308
9:45-10:00
Optimizing Accuracy and Efficiency in M-IoT Through Adaptive Cooperative Decision Engine
Presenter: Muhammad Imanudin
Bandung Institute of Technology, Indonesia

Oral Session 11: Graph Learning and Knowledge Representation

Chair: Roman M. De Angel, FEU Institute of Technology, Philippines
Room: 3310, 3F, Building 3
Time: 8:30-10:00, March 22nd

L0118
8:30-8:45

Layerwise Training and Convergence Analysis of Deep Graph Convolutional Networks
Presenter: Xinge Zhao
Nanyang Technological University, Singapore

L4332
8:45-9:00

Pattern-Aware Graph Neural Networks for Handling Missing Data
Presenter: Taehee Jeong
San Jose State University, United States

L8214
9:00-9:15

Independent Coordinate Kolmogorov-Arnold Networks: Exploiting Structural Constraints for Dimensionality Reduction
Presenter: Patrick Ghali
Susanoh Ltd, Japan

L2690
9:15-9:30

On the Reliability of AI on Dimensionality Reduction under Non-linear and Complex Data Geometries
Presenter: Omaimah Al Hosni, University of Technology and Applied Sciences Muscat, Oman

L7863
9:30-9:45

Multi-Agent System Approach for Constructing Three-Layer Knowledge Graph Architectures for Efficiently Leveraging Engineering Data
Presenter: Maximilian Kretzschmar
Dresden University of Technology, Germany

L9299-A
9:45-10:00

Scalable Machine Learning Model for Diffusion Prediction in Social Graph
Presenter: Ivan Belik
Norwegian School of Economics, Norway

Oral Session 12: Explainable, Robust, and Reliable AI

Chair: Ronel Ramos, FEU Institute of Technology, Philippines
Room: 3311, 3F, Building 3
Time: 8:30-10:00, March 22nd

L4888
8:30-8:45
Interpretable AI and Classical Statistics: Revisiting the Surrogate Model
Presenter: Osama Abdelhay
Princess Sumaya University for Technology, Jordan

L0389
8:45-9:00
Correlation-Aware Feature Attribution Based Explainable AI
Presenter: Poushali Sengupta
University of Oslo, Norway

L9755
9:00-9:15
Explainable AI Survival Models for Enhanced Reliability and Decision-Making in Industrial Operations
Presenter: Lalit Kumar
IILM University, Greater Noida, India

L4143
9:15-9:30
Optimizing Deep Learning Models for Environmental Sustainability: A Model-Centric Approach
Presenter: Samar Garrab
Royal Military College of Canada, Canada

L0786
9:30-9:45
Soft Metrics for Ordinal Label Uncertainty with Variable Sample Sizes
Presenter: Alessandro Magnani
Independent Researcher, United States

L2409
9:45-10:00
Deep Reinforcement Learning and the IID Assumption
Presenter: Fatih Özgan
University of Duisburg-Essen, Germany

Oral Session 13: Affective Computing and Multimodal Interaction

Chair: Naveen Kumar Gondhi, Shri Mata Vaishno Devi University, India
Room: 3308, 3F, Building 3
Time: 10:30-12:15, March 22nd

L8704
10:30-10:45

Bayesian Emotion Recognition with Gaussian Mixture-Based Distributional Consistency
Presenter: Qiyuan Xiao
Kobe University, Japan

L5852
10:45-11:00

Establishing a Localized Facial Emotion Dataset for Enhanced Affective Computing in the Northern Philippines Context
Presenter: Zyra Yell Fagyan
University of the Cordilleras, Philippines

L2592
11:00-11:15

The Museum That Feels: AI-Driven Affective Computing for Emotion-Adaptive AR Experiences
Presenter: Eleftheria Iakovaki
Aegean University, Greece, Athens

L8256
11:15-11:30

Cross-Modality Attention Bridge Model for Mandarin-to-Vietnamese S2TT
Presenter: Bor-Shen Lin
National Taiwan University of Science and Technology Taipei, Taiwan

L1936
11:30-11:45

Development of an AI-Based Eye-Tracking System Using Iris Features and Eye-Movement Intention Points
Presenter: Chien-Lung Li
Chung Hua University, Hsinchu, Taiwan

L3297
11:45-12:00

ARES: Adaptive Real-Time Evaluation System for Cognitive and Tactical Performance in Football Training
Presenter: Markos Konstantakis
Aegean University, Greece

L4761
12:00-12:15

Enhancing Nutritional Data Literacy Through an AI-Driven Pipeline for Object Detection and Label Interpretation
Presenter: Fil Edward Buitizon
University of the East - Manila, Philippines

Oral Session 14: AI-Enhanced Education and Learning Analytics

Chair: Taehee Jeong, San Jose State University, United States
Room: 3309, 3F, Building 3
Time: 10:30-12:00, March 22nd

L5888-A
10:30-10:45

PinocchioGPT: A Digital Humanities Framework for Teaching AI Ethics Through Narrative and Hallucination
Presenter: Petrassi Danilo
University of Macerata, Italy

L8508
10:45-11:00

Empowering Educators with Microsoft Copilot: A Framework for AI-Assisted Lesson Design and Assessment
Presenter: Roman M. De Angel
FEU Institute of Technology, Philippines

L2115
11:00-11:15

Explainable AI for Personalized Learning: Enhancing Transparency in Adaptive Education Systems
Presenter: Angelo C. Arguson
FEU Institute of Technology, Philippines

L4181
11:15-11:30

LEAP: A Deep Learning Pipeline for Early Prediction of Student Learning Outcomes from LMS Logs
Presenter: Athanasios Angeioplastis
International Hellenic University, Greece

L9222
11:30-11:45

Exploring Gemini AI's Text-to-Image Capabilities for Adaptive Learning in Education
Presenter: Ronel Ramos
FEU Institute of Technology, Philippines

L5696
11:45-12:00

Human-AI Collaboration in Higher Education: The Role of Copilot Vision in Real-Time Learning Support
Presenter: Juan Paulo H. Magcuyao
FEU Institute of Technology, Philippines

Oral Session 15: AI in Finance, Economics, and Workforce Analytics

Chair: Samar Garrab, Royal Military College of Canada, Kingston (ON), Canada
Room: 3310, 3F, Building 3
Time: 10:30-12:00, March 22nd

L1393
10:30-10:45

Team Synergy-Aware Workforce Scheduling: Integrating Interpersonal Compatibility and Endogenous Turnover Dynamics
Presenter: Aijia Liu
Keio University, Japan

L2393
10:45-11:00

Hybrid Data Preprocessing of Office Actions in Patent Prosecution History
Presenter: Jieh-Sheng Lee
National Yang Ming Chiao Tung University School of Law, Taiwan

L0133
11:00-11:15

Impulse Buying in the Indonesian E-Commerce Market: The Role of AI-Driven Personalization
Presenter: Roozbeh Babolian Hendijani
Bina Nusantara University, Indonesia

L0346
11:15-11:30

AI-driven Stock Price Forecasting in Technology Stocks with Model-Based Feature Selection for a Quantum-Inspired GAN
Presenter: Suwatchai Piewfad
Khon Kaen University, Khon Kaen, Thailand

L7889
11:30-11:45

Hybrid Ensemble Approach for Film Revenue Forecasting with Sentiment Features
Presenter: Nawasawan Yenrompho
Thammasat University, Thailand

L8064
11:45-12:00

Salary Prediction in Thailand's IT Sector Using Supervised Learning Models
Presenter: Arocha Saengwirojanapat
Thammasat University, Thailand

Oral Session 16: Federated Learning and Privacy-Preserving AI

Chair: Osama Abdelhay, Princess Sumaya University for Technology, Jordan
Room: 3311, 3F, Building 3
Time: 10:30-12:00, March 22nd

L3336
10:30-10:45
A Literature Review about Federated Learning in Recommendation Systems
Presenter: João Gaspar
GECAD, ISEP, Polytechnic of Porto, Portugal

L6654
10:45-11:00
Adaptive Speaker Verification Under Degradation: A Drift-Aware Security Framework
Presenter: Oluwatobi Oyewale Oyebode
Nara Institute of Science and Technology, Japan

L2524
11:00-11:15
A Blockchain Aided Resource/Role Hierarchy Based Access Control Framework for Federated Learning
Presenter: I-Ling Yen
University of Texas at Dallas, United States

L3649
11:15-11:30
Trust-aware Explainable Federated Learning (TEFL) for Privacy-Preserving Medical Diagnosis
Presenter: Janice A. Abellana
FEU Institute of Techonology, Philippines

L6868
11:30-11:45
Privacy-Preserving Federated Learning for MRI-Based Brain Tumour Detection Using Xception CNN
Presenter: Anik Sen
Faculty of Information Science and Technology, Multimedia University, Melaka, Malaysia

L7595
11:45-12:00
DABBiT: A Drift-Adaptive Behavioral Biometrics Framework for Continuous Authentication inTanzanian Internet Banking
Presenter: Festus Edward Ndalama
Nara Institute of Science and Technology, Japan

Poster Session Details

Poster Session 1: AI Models, Learning Frameworks, and Methodological Advances

Chair: Naoyuki Ishimura, Chuo University, Japan
Venue: Cafeteria Area, 1F, Building 3
Time: 14:00-15:30, March 21st

01 L0617	*Multi-Task CAD Generation Using Compact Decoder-Only Models* *Presenter: Elias Berger* *Dresden University of Technology, Germany*
02 L8978-A	*Generative Forecast of Return Correlations by Conditional Frequency-domain Diffusion* *Presenter: Hongyue Shi* *Tokyo University of Science, Japan*
03 L2784	*Volleyball Lineup Recommendation using GraphSAGE with Knowledge Distillation and Feature-Aware Modeling* *Presenter: Wei-Chi Lin* *National Cheng Kung University*
04 L2120	*WGrasp: A Universal Dexterous Grasping Framework Guided by Vision and Tactile Perception* *Presenter: Lai Wei* *South China Agricultural University, China*
05 L1864-A	*Fuzzing with Large Language Models: Improving Software Security and Reliability* *Presenter: Hung-Min Sun* *National Tsing Hua University, Taiwan*
06 L5151-A	*CNN-Driven Classification of Autism Spectrum Disorder Using Short-Term Center of Pressure Data* *Presenter: Yumeng Li* *Texas State University, United States*

07 L5108	*Evaluation of Cross-Domain Semantic Segmentation of Driving Scenes Using Transformer Models* *Presenter: Wei Huang* *Xi'an Jiaotong-Liverpool University, China*
08 L5893-A	*Denoising Compton Image of 478 keV Prompt Gamma Rays using MLP-based Events Selection for Real-time In-vivo Dosimetry in BNCT* *Presenter: Jiye Qiu* *The University of Osaka, Japan*
09 L3727	*A Physics-Space Explainable AI Framework for Speed-Aware Motor Torque Estimation* *Presenter: Nitikorn Junhuathon* *Rajamangala University of Technology Thanyaburi, Thailand*

Poster Session 2: Applied AI in Healthcare, Industry, Environment, and Society

Chair: Angelo C. Arguson, FEU Institute of Technology, Philippines
Venue: Cafeteria Area, 1F, Building 3
Time: 16:00-17:30, March 21st

01 L5888	*A Data-Driven Approach to Tachycardia Detection in ECG using Machine Learning Model* *Presenter: Sirazz Sanjida* *Saga University, Japan*
02 L8455	*Thermal Comfort Process Control* *Presenter: Pavol Belany* *University of Zilina, Slovakia*
03 L6370	*Predicting Urban Farming Participation Intention in the National Capital Region, Philippines using Machine Learning Approaches* *Presenter: Roman De Angel* *FEU Institute of Technology, Philippines*
04 L5789	*Aviation Maintenance Risk Prediction of Integrated Deep Learning Models* *Presenter: Geng-Wu Lo* *Chung Yuan Christian University, Taiwan*
05 L5370	*Fixation-Spike Gate: A Visual-Neuroscience-Inspired Framework for Robust Railway Object Detection in Adverse Environments* *Presenter: Ohbyung Kwon* *Kyung Hee University, Republic of Korea*
06 L5439	*ARC in Practice: Applying the Automation Risk Checklist for Responsible AutoML Deployment* *Presenter: Osama Abdelhay* *Princess Sumaya University for Technology, Jordan*
07 L6590	*Predictive Modeling of LED Luminaire Degradation Using Artificial Neural Networks and Environmental Input* *Presenter: Pavol Belany* *University of Zilina, Slovakia*

08 L7126-A

Validating Financial Machine Learning Algorithms
Presenter: Nicholas Cangialosi
Montclair State University, United States

09 L0751

Culture and AI Trust: Cross-National Evidence from the World Values Survey
Presenter: Kumiko Komatsu
Keio University, Japan

10 L1990-A

The Immune Microenvironment Drives RACK1-Mediated Ribosomal Reprogramming in Pediatric Acute Myeloid Leukemia
Presenter: Mukunthan Kuppusamy Selvam
Manipal institute of Technology, Manipal Academy of Higher Education, India

11 L2538-A

Recurrence Plot-Based Transfer Learning on a Residual Network for Enhancing the Prediction of Ablation Outcomes in Human Persistent Atrial Fibrillation
Presenter: Noor N. Qaqos
University of Leicester, Leicester, UK

Online Oral Session Details

Oral Session 17: Trustworthy, Secure, and Responsible AI

Chair: Lean Karlo Santos Tolentino, Technological University of the Philippines, Philippines
ZOOM Room: https://us06web.zoom.us/j/89013194390
Time: 9:30-11:30, March 22nd

L2083
9:30-9:45
Reviewing Model Collapse and Countermeasures
Presenter: Beichen Hu
UT Southwestern Medical Center, United States

L5493-A
9:45-10:00
Can LLMs Really Be Secure by Default?
Presenter: Nir Valtman
Arnica, United States

L0653
10:00-10:15
Hold the Prompt (HODPOT): Defense Design for Securing the System Prompt of LLM Agents
Presenter: Lilian Tai Do Khac, Marc Fabian Mezger
Philips-University Marburg, Germany; Heidelberg University, Germany; HPCLabs, Liederbach, Germany

L9298
10:15-10:30
Evolution of Phishing Detection: From Traditional Methods to Explainable AI
Presenter: Anıl Sezgin
Development, Siemens A.S., Turkiye

L6168
10:30-10:45
Building Trustworthy Threat Detection: A Comparative Analysis and Explainable AI Framework for Memory Forensics
Presenter: Srinivasa Kranthi Kiran Kolachina
Bowie State University, United States

L5666
10:45-11:00
CAPE: Test-Time Iterative Optimization for Copyright-Aware Multimodal Image Generation
Presenter: Zeyu Jiang
City University of Hong Kong, Hong Kong, China

L5238
11:00-11:15
Novel Aspects of How Trust in Human-AI Collaboration is Formed
Presenter: Lilian Tai Do Khac
Philips-University Marburg, Marburg, Germany

L6132
11:15-11:30
Class-Wise Streaming for Detecting Minority Class Drift in Machine Learning Classifiers
Presenter: Dileesha Kannangara
University of Moratuwa, Sri Lanka

Oral Session 18: Large Language Models & AI Systems

Chair: Mashael Mohammed Asiri, King Khalid University, Abha, Saudi Arabia
ZOOM Room: https://us06web.zoom.us/j/83303219482
Time: 9:30-11:45, March 22nd

L4235
9:30-9:45

CALM: Cost-efficient, Model Agnostic, Low-latency Modular LLM Deployment framework
Presenters: Ashish Bansal, Deepkamal Kaur Gill
The Vanguard Group, United States

L7080
9:45-10:00

Large-Scale Data Preparation for Malay Language LLM Development
Presenter: Muhammad Ajrul Amin Mohd Zaidi
Universiti Kebangsaan Malaysia Bangi, Malaysia

L7885
10:00-10:15

High Quality Malay Corpus via LLM-Aided Validation
Presenter: Nur Amalina Baharom
Universiti Kebangsaan Malaysia (UKM), Malaysia

L1114
10:15-10:30

LLMDebug: Prompt-Engineered Large Language Models for Automated Root Cause Analysis in Microservices Architectures
Presenter: Tejas Pravinbhai Patel
Independent Researcher, IEEE, United States

L7055
10:30-10:45

Source Code Error Categorization and Explanation by Retrieval Augmented Generation
Presenter: Md Faizul Ibne Amin
The University of Aizu, Japan

L7929
10:45-11:00

Persona-Driven Feedback Agents for High-Stakes Documents: A Multi-Perspective Evaluation of Global Talent Visa Submissions
Presenter: Anthonette Chidinma Adanyin
Independent Researcher, United Kingdom

L0481
11:00-11:15

Examining the Influence of ChatGPT on Programming Courses in Higher Education
Presenter: Jonel B. Prado
Sorsogon State University, Philippines

L1841
11:15-11:30

Neuro-RAGX: An Interpretable Graphical Decoding Framework for Functional Connectivity Using Multi-View Graph Attention Networks and Retrieval-Augmented Generation
Presenters: Prince Isaac Pantino, Fitzsixto Angelo Singh
University of San Carlos, Philippines

L2518
11:30-11:45

Improving Thematic Balance in Press Release Generation with GMMs and Dimensionality Reduction
Presenter: Imed Keraghel
Centre Borelli UMR9010, Paris, France

Oral Session 19: Medical & Healthcare AI

Chair: R. Divya, PSNA College of Engineering and Technology, India
ZOOM Room: https://us06web.zoom.us/j/89013194390
Time: 13:30-15:45, March 22nd

L0682
13:30-13:45

LLM is Not All You Need: A Systematic Evaluation of ML vs. Foundation Models for text and image based Medical
Presenter: Tejul Pandit
Palo Alto Networks, United States

L5890
13:45-14:00

Performance Comparison of Machine Learning Algorithms for Stunting Detection with Recursive Feature Elimination and SMOTE
Presenter: Reza Aulia
Universitas Syiah Kuala, Indonesia

L7654
14:00-14:15

Morphological Change Detection for Scanning Electron Microscope Images of Lung Cell Surfaces
Presenter: Jarin Ritu
Texas A&M University, College Station, United States

L7316
14:15-14:30

Time-Frequency Cross-Attention Network with Stimulus Intensity Modulation for Automated ABR Classification
Presenter: Xiaohan Zhou
The Chinese University of Hong Kong, Shenzhen. China

L2786
14:30-14:45

Multi-Agent AI System for Personalized Medication Adherence in Retail Pharmacies
Presenter: Roopam Dhanraj Choudhari
Walmart, United States

L6666
14:45-15:00

A Dual-Branch CNN Fusion Approach for Robust Chest X-ray Disease Classification
Presenter: Amjad Alshahrani
King Khalid University, Saudi Arabia

L8312
15:00-15:15

SkinCheck: A Lightweight CNN-Powered Mobile App for Early Detection of Skin Cancer
Presenters: Wenting Kate Li
Washington University in St. Louis, United States

L1619
15:15-15:30

Hyperparameter Tuning Approach on Deep Learning for Biomedical Image Analysis Using Big Data Analytics
Presenter: Mashael Mohammed Asiri
King Khalid University, Abha, Saudi Arabia

L4977
15:30-15:45

3MNet: A Novel Multi-omics Deep Ensemble Model for Melanoma Survival Analysis
Presenter: Stanley Chen
The Harker School, United States

Oral Session 20: Computer Vision & Multimodal Learning

Chair: LYSA V. COMIA, Mapua University, Philippines
ZOOM Room: https://us06web.zoom.us/j/83303219482
Time: 13:30-15:30, March 22nd

L3279
13:30-13:45
Treating the Image as a System: A Hybrid Signal-AI Approach to Mammogram Analysis
Presenter: Azra Asiksoy
KU Leuven, Belgium

L1744
13:45-14:00
Integrating Semantic Segmentation with Parallax Geometry for UAV-Based Structure Height Estimation
Presenter: Pablo Silva
Segerstrom High School, United States

L8817
14:00-14:15
Uncertainty-Aware Self-Consistency Learning for Low-Altitude UAV-Based Crop Health Assessment
Presenter: Arundhati Boruah
Indian Institute of Technology Kharagpur, India

L4124
14:15-14:30
BRIGHTER MM+: A Multimodal and Emoji-Enriched Emotion Recognition Framework for Low-Resource Languages
Presenter: Haseena Bibi Zulfiqar
German University of Technology in Oman Muscat, Oman

L4050
14:30-14:45
Prompt-Guided Contrastive Learning for Robust Retinal Disease Classification
Presenter: Abdulrahman M. Qahtani
Computer Science Department, Taif University, Taif, Saudi Arabia

L8942
14:45-15:00
Qwnet: A Visual Defect Detection for Quartz Wafer
Presenter: Ming Ren
Shenyang University of Technology, China

L5991
15:00-15:15
User-oriented Intent Classification based on Gait Characteristics
Presenter: Shiyao Wang
Shenyang University of Technology, China

L7577
15:15-15:30
GFT: Gradient Focal Transformer
Presenters: Boris Kriuk
Hong Kong University of Science and Technology, China

Oral Session 21: AI for Industry, Business & Finance

Chair: Tolentino Miguel Angelo, University of the East – Manila, Philippines
ZOOM Room: https://us06web.zoom.us/j/82752573402
Time: 13:30-15:45, March 22nd

L9772-A
13:30-13:45
Patterns of Successful and Failed Generative AI Adoption Across Industries: A Cross-Case Analysis and the CASE Framework.
Presenter: Archana Umakanth
Independent Researcher, United States

L4313
13:45-14:00
Perceived Human-Likeness' Effect on Attitude Towards AI-Ads with Virtual Brand Ambassador
Presenter: Artha Sejati Ananda
Bina Nusantara University, Indonesia

L7591
14:00-14:15
Sentiment Prediction for Market Volatility
Presenter: Meet Amin
Rider University, United States

L0028-A
14:15-14:30
AI-Powered Workflows: Reducing Cognitive Load and Boosting Employee Productivity
Presenter: Daniel Fallmann
Mindbreeze, Austria

L5380-A
14:30-14:45
An Adaptive AI Trading Agent Based on Deep Reinforcement Learning and Predictive Modeling for Autonomous and
Presenter: Youssef Lahbabi
EMAA Business School, Agadir, Morocco

L2536
14:45-15:00
Artificial Intelligence Algorithms in Optimization of Supply Chain Networks
Presenters: Dana Althea L. Salaysay, Van Julian D. De Vera
Mapúa University, Manila, Philippines

L8181
15:00-15:15
Monodense Deep Neural Model for Determining Item Price Elasticity
Presenters: Lakshya Garg, Deep Narayan Mishra
Walmart, United States

L9477
15:15-15:30
HTFSN: A Hierarchical Temporal Feature Sedimentation Network Multi-Zone For Energy Consumption Forecasting
Presenter: Zijian Lei
CMCU Engineering Co.,Ltd., Chongqing, China.

L0816
15:30-15:45
Deep Learning Based Crack Detection MLOps Pipeline using Incremental Learning
Presenter: Imran Zualkernan
American University of Sharjah, Sharjah, United Arab Emirates

Oral Session 22: Machine Learning Theory & Methods

Chair: Tejas Pravinbhai Patel, Independent Researcher, IEEE, United States
ZOOM Room: https://us06web.zoom.us/j/89013194390
Time: 16:00-18:15, March 22nd

L9871
16:00-16:15

Improving Aspect-Category-Sentiment Detection through a Weighted Attentional Graph Framework
Presenter: Neda Keivandarian
Florida institute of Technology, United States

L4293
16:15-16:30

Deep Meta Coordination Graphs for Multi-agent Reinforcement Learning
Presenter: Nikunj Gupta
University of Southern California, United States

L9685
16:30-16:45

FnF-CZSL: Fast Non-Adversarial Feature Synthesis for Conventional Zero-Shot Learning
Presenter: Md Shakil Ahamed Shohag
University of Windsor, Canada

L6421
16:45-17:00

Transfer Learning across Optimization Problems via the Constraint Composite Graph
Presenter: Kexin Zheng
University of Southern California, United States

L5483
17:00-17:15

Federated Split Learning: Distributed Local Training for Low Computational Unit Clients
Presenter: Kazi Habibur Rahaman
Wilfrid Laurier University, Waterloo, Canada

L4352
17:15-17:30

Learning Hierarchical Structure for Efficient Automated Negotiation of Interdependent Issues Through Analys of Bid Sequence
Presenter: Adnan Ahmed
University of Calgary, Canada

L3903
17:30-17:45

Exploring Continual Learning and NeuroEvolution for Decentralized Continual Learning
Presenter: Anaïs Lavorel
Université Claude Bernard Lyon 1, Université Lumière Lyon 2, ERIC, Lyon, France

L9969
17:45-18:00

ML-EWRF: Exponential Weighted Random Forest for High Dimensional Multi-label Classification
Presenter: Sheetal Sisodia
Indian Institute of Information Technology Vadodara, India

L4911
18:00-18:15

Enhanced Sentiment Classification using Ensemble Transformer Vectors and Adaptive Synthetic Oversampling (ADASYN)
Presenter: Yaakov Hacohen-Kerner
Jerusalem College of Technology, Israel

Oral Session 23: AI for Infrastructure, Environment & Complex Systems

Chair: Imran Zualkernan, American University of Sharjah, United Arab Emirates
ZOOM Room: https://us06web.zoom.us/j/83303219482
Time: 16:00-18:00, March 22nd

L5683
16:00-16:15

Discerning Implicit Digital Persuasion: A Multimodal Framework and Corpus for Covert Content Identification
Presenter: Meet Amin
Rider University United States

L3733-A
16:15-16:30

Resilient Legacy Systems Analysis Using AI/ML
Presenter: Sakthi Muthuswamy
Independent Researcher, United States

L9264
16:30-16:45

Can AI Invent Calculus, or Just Mimic Math?
Presenter: Ava Hedayatipour
California State University Long Beach, United States

L3976
16:45-17:00

Privacy-Preserving Multimodal News Recommendation through Federated Learning
Presenter: Mehdi Khalaj
University of Saskatchewan, Canada

L2795
17:00-17:15

A Framework for Assessing Vehicle Measurement Data Quality for Automotive Machine Learning Applications
Presenter: Sven Dominka
Robert Bosch AG, Austria

L4091
17:15-17:30

Data Driven Analytics Framework for Frequency Domain Signal Analysis of Coupled Maneuvering Systems
Presenter: Cyril Joseph
Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India

L9300
17:30-17:45

Artificial Neural Network-Based Assessment of Flood Control and Public Safety in the Philippines
Presenters: Samantha Krayelle M. Estose, Jose Benedict Macado
Mapúa University, Manila, Philippines

L9378
17:45-18:00

BERTopic for Disaster Response Needs Assessment: Insights from Twitter(X) Data
Presenter: Jessa O. Poe
Sorsogon State University and University of the Cordilleras, Philippines

Audience Members

Abdulmohsen Algarni, King khalid University
Agnes Cohen, Independent researcher
Ainur Zhumadillayeva, L.N. Gumilyov ENU
Aliya Jadik, American University in Dubai
Amr Derhem, American University in Dubai
An Nafew, Tech Autocrats
Anoop Tripathi, ZS Associates
Areenta Lertyongphati, Thammasat University
Ashish Anand, Google DeepMind
Andreas Brieden, UniBW Munich
Carlos Claiton Noschang Kuhn, University of Canberra
Chiao-Jung Chen, NTUST
Dina Šabanović, Josip Juraj Strossmayer University of Osijek
Ephraimuel Jose L. Abellana, Philippine Women's University
Farida Rachuratchata, Thammasat University
Feng Gao, Kyung Hee University
Gongqi Lin, BGL Corporate Solutions Pty Ltd
Hajime OCHI, NEC Solution Innovators, Ltd.
Hakyeon Lee, SeoulTECH
Hasin Israque Chowdhury Taha, Tech Autocrats
Hideki Kozima, Tohoku University
Hussam Abdelhay, Tamayouz for Business
Isaac Yaes, Independent researcher
Hwanhee Lee, Chung-Ang University
Isana Banjongsil, Thammasat University
Ivica Lukić, Josip Juraj Strossmayer University of Osijek
Jinwu Liu, Xi'an Jiaotong-Liverpool University
Jirachaya Nongbualang, Thammasat University
Junyi Li, Duke Kunshan University
Jose Antonio Quero Reina, Quasar for ESA
Justin Yeung, University of Melbourne
Josephine Yeung, University of Melbourne
Marc Rodin C. Ligas, University of the East - Manila
Marko Carevic, CEO Uvid doo
Masahiro Tanaka, Fukuoka University
Meng-Hua Li, National Formosa University
Miljenko Švarcmajer, Josip Juraj Strossmayer University of Osijek
Mirko Köhler, Josip Juraj Strossmayer University of Osijek
Miyako MUTA, The University of Tokyo
Mohamed Nadif, Centre Borelli UMR9010
Muztaba Fuad, Winston-Salem State University
Nahid Boustani, Impact Ventures LLC
Natthida Theepakornsukkasem, Thammasat University
Patrizia Brieden, galor
Peter Hrabovský, University of Zilina University of Zilina
Rabin Ben Yamin, Independent researcher
Raina Samuel, Montclair State University
Rubaiyat H Rahman, Tech Autocrats
Ryota Yoshizawa, Kioxia Corporation
Satoru Yokota, Kioxia Corporation
Saurabh Mishra, Google Deepmind
Snigdha Biswas, ZS Associates
Sungsoo Lee, SeoulTECH
Shin-ichi Shibata, Kyushu University Hospital
Soonyee Hong, Korean National Council of Women
Seunghee Baek, Yemyung Graduate University
Taghreed Altamimi, Alfaisal University
Takafumi Nakanishi, Tokyo University of Technology
Tea Krčmar, Josip Juraj Strossmayer University of Osijek
Veta Ghenescu, Institute of Space Science - Subsidiary of INFLPR
Vishnu Madathiparambil Joshy, Gale Partners LLC
Vladimir Vlassov, KTH Royal Institute of Technology
Wan Yee Chan, Mozilla
Warunya Udomkhwamsuk, Thammasat University
Ya-Ning Chang, National Cheng Kung University
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Zdravko Krpić, Josip Juraj Strossmayer University of Osijek

MEMO