ICAAI 2025

2025 9th International Conference on ADVANCES IN ARTIFICIAL INTELLIGENCE

EAIT 2025 6th International Conference on Education and Artificial Intelligence Technologies

November 14-16, 2025 Manchester, UK

Sponsor BIRMINGHAM CITY University

Patrons University of Staffordshire, SCIEI Science and Engineering Institute, bubo.ai, QA, Middlesex University London, Hochschule Rhein-Waal Rhine-Waal University of Applied Sciences, Université Toulouse III Paul Sabatier

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Conference Venue

Manchester Metropolitan University
(School of Digital Arts (SODA))

Address: 14 Higher Chatham Street, Manchester, M15 6ED.
Web: https://www.schoolofdigitalarts.mmu.ac.uk/

Travelling to Manchester Met campus couldn't be easier.
The region is well served by motorways, and has good public transport.
Manchester International Airport is just 10 miles (16km) south of the city centre, with fast and frequent rail travel to Manchester.
Our campus is close to Manchester's city centre. The routes most used by students are well served by public transport. There's a free shuttle bus that covers the city centre, linking the main railway stations, NCP car parks, and bus and Metrolink tram stops.
The campus is made up of two areas, Birley and All Saints. To work out which part of the campus you are visiting download the campus map.

(Please get more information from the web: https://www.mmu.ac.uk/about-us/our-campus/travel)

Presentation Guideline

❖ FOR EVERYONE

- **Time Zone:** London Time (UTC/GMT+0). Please double check your Presentation Time, and adjust times to device's time zone.
- **Language:** English.
- **Nov. 14:** For ZOOM Test (online participants) and Onsite Registration & Materials Collection (onsite participants).
- **Nov. 15**: Opening Remarks, Keynote Speeches, Invited Speeches, Parallel Sessions, Poster Sessions.
- **Nov. 16**: Lab Visit, Online Sessions
- Each Keynote Speech is within **40Mins**, Invited Speech is within **20 Mins**, each oral presentation is allocated with **15Mins** (10~12Mins presentation, 3~5Mins for Q&A), please prepare your English PPT in advance.
- **Group Photo** will be at the morning break time on Nov. 15, and there will be session group photo time at the end of each session.
- **One Best Presentation** will be chosen from each session and announced at the end of the session.
- **Please keep all your belongings at any time. The conference organizer does not assume any responsibility for the loss of personal belongings.**

❖ FOR ONSITE PRESENTERS

- Enter the Session room and meet your Session Chair in advance before the session starts. Please bring your USB with your PPT slides and copy it to the conference laptop 15 Mins before the session starts, check your slides on the screen.
- Session room will be equipped with Laptop, Projector and Laser Pointer. To avoid time consuming it is suggested not to use your own laptop.
- Suggest you keep one copy of your PPT Slides file in your Email box.
- Poster Presentation: **A1 Size** (Please print and take it to the conference venue)

❖ FOR ONLINE PRESENTERS

Please prepare:

- Computer with working camera and audio system; Stable Internet Connection (wired connection is preferable); Unnecessary applications are shut down on your computer so all resources are allocated to the Zoom Meeting;
- **Rename** yourself with Session Number +Paper ID+Name, (eg. S1+A1001+John), before entering meeting room.
- Enter **15 Mins prior** to your session in ZOOM, you cannot connect the meeting until "host" starting it.
- **Nov. 14** will be ZOOM TEST DAY, to help online delegates know better how to use ZOOM, try to Share Screen; Rename yourself. If you know well how to use ZOOM and no need to test.
- Certificates will be emailed after the conference.

❖ ZOOM TOOL

- You could locate the session which you plan to attend and click on the "Zoom link", no password;
- Install Zoom App on your computer, "Join a Meeting" by inserting the meeting room ID. (Download from zoom.us)
- Zoom Meeting ID: 84086941872
- Zoom Meeting Link: https://us02web.zoom.us/j/84086941872

Welcome Message

It's our honor to welcome your participation in 2025 The 9th International Conference on Advances in Artificial Intelligence and 2025 The 6th International Conference on Education and Artificial Intelligence Technologies in Manchester, UK during November 14-16, 2025. It is sponsored by Birmingham City University, patrons Staffordshire University London (SUL), Science and Engineering Institute, Bubo.AI, QAHE at Northumbria University London Campus, Middlesex University London, etc.

Our conferences are highlighted by two keynote speakers and four invited speakers, they are Prof. Edward Keedwell from University of Exeter, UK;Prof. Michael Herrmann from University of Edinburgh, UK; Dr. Muhammad Afzal from Birmingham City University, UK; Dr. Pasquale Coscia from Università degli Studi di Milano, Italy; Dr. Angel Miguel Garcia Vico from University of Jaén (UJA), Spain and Dr. Ferdi Sarac from Süleyman Demirel University, Turkey. Meanwhile, many people have put in long hours to make these conferences come to life. The list is too long to recognize everyone here, but we want to thank express our thanks to the conference technical committees, whose generous support to the paper reviewing work, which is vital for planning such an ambitious meeting.

We received more than 150 submissions around the world, after several rounds of review, there are about 70 submissions accepted for presentation by the conferences. One best presentation will be selected from each session, evaluated from: originality; applicability; technical Merit; qualities of PPT; English. The best one will be announced at the end of each Session.

We'd like to express our great appreciations to all the support from you, hope you can enjoy the conference!

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Organizing Committees

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Conference Schedule

Nov. 14, 2025 (Friday, UTC/GMT+0)

10:00-11:00	**Online ZOOM Test**	**Zoom ID: 84086941872**
14:00-17:00	**Onsite Registration & Materials Collecting**	**SODA Ground Floor Reception**

Nov. 15, 2025 (Saturday, UTC/GMT+0)

09:00-09:10	**Opening Address** Prof. Huseyin Seker, The University of Staffordshire, UK	**SODA 2.19** 2nd Floor Village Green
	Welcome Address Prof. Jill Griffiths, Head of the School of Digital Arts, SODA; Professor of Digital Arts & Creative Industries, Manchester Metropolitan University, UK	
	Program Address Prof. Xin-She Yang, Middlesex University, UK	
09:10-09:50	**Keynote Speech I** Prof. Edward Keedwell, University of Exeter, UK	
09:50-10:30	**Keynote Speech II** Prof. Michael Herrmann, University of Edinburgh, UK	
10:30-10:50	**Group Photo & Break**	**Foyer**
10:50-11:10	**Invited Speech I** Dr. Muhammad Afzal, Birmingham City University, UK	**SODA 2.19** 2nd Floor Village Green
11:10-11:30	**Invited Speech II** Dr. Pasquale Coscia, Università degli Studi di Milano, Italy	
11:30-11:50	**Invited Speech III** Dr. Angel Miguel Garcia Vico, University of Jaén (UJA), Spain	
11:50-12:10	**Invited Speech IV** Dr. Ferdi Sarac, Süleyman Demirel University, Turkey	

12:10-13:15	**Lunch**	
13:15-15:30	**Session 1** Machine Learning Algorithms and Model Advancement	**SODA 3.13**
	Session 2 AI Systems, Frameworks and Social Applications	**SODA 3.14**
	Session 3 Intelligent Healthcare and Medicine	**SODA 3.15**
15:30-16:00	**Coffee Break & Poster Session**	**Foyer**
16:00-18:15	**Session 4** Natural Language Processing and Large Language Models	**SODA 3.13**
	Session 5 Computer Vision and Remote Sensing Analysis	**SODA 3.14**
	Session 6 AI and Innovative Education	**SODA 3.15**
18:15-20:00	**Dinner**	

Nov. 16, 2025 (Sunday, UTC/GMT+0)

10:00-12:00	**Lab Visit**	**Meet @ SODA Ground Floor Reception**
10:30-12:00	**Session 7 (Online Only)** **AI in Education and Professional Domain Applications**	**Zoom ID: 84086941872**
13:30-15:30	**Session 8 (Online Only)** **AI Model Algorithms and Technical Development**	**Zoom ID: 84086941872**

Keynote Speakers

Prof. Edward Keedwell

University of Exeter, UK

Speech Title: Hyper-heuristics and Interactive Metaheuristics for Real-World Optimisation Problems

London Time	09:10-09:50, Nov. 15	**Onsite Room**	**SODA 2.19**

Biography: Ed is a Professor of Artificial Intelligence at the University of Exeter. He has worked at the University for over 20 years and leads a research group working on applied AI, attracting over £5m in research funding and yielding over 200 journal and conference publications. His research interests focus on the development of new machine learning and optimisation methods applied to problems in the biosciences and engineering. He has worked with partners in academia and industry to develop traditional metaheuristic, human-in-the-loop and hyper-heuristic optimisation methods with application to operational research, water systems and decarbonisation challenges. He is a member of the Association of Computing Machinery and a Fellow of the Higher Education Academy.

Abstract: Optimisation methods, such as evolutionary algorithms, have been successfully applied to a wide range of problems across many industrial sectors. Although they typically work well in these scenarios, performance and generalisability can be improved through the use of learning and domain expertise. In this talk, I will explore the development of optimisation methods augmented by machine learning (hyper-heuristics) and human expertise (interactive optimisation) to improve generalisability and feasibility of the developed solutions. The methods will be illustrated by describing their application to a number of real-world problems, including those in the water and transportation sectors, with a focus on sustainability.

Prof. Michael Herrmann

University of Edinburgh, UK

Speech Title: Perspectives of Physics-Informed Neural Networks: Competitiveness, Versatility, and Interpretability

London Time	09:50-10:30, Nov. 15	**Onsite Room**	**SODA 2.19**

Biography: Dr. J. Michael Herrmann graduated from the University of Leipzig, and took postdoctoral positions in Copenhagen, Tokyo, and Göttingen. He is now a faculty member of the University of Edinburgh's School of Informatics, Institute of Perception, Action, and Behaviour (IPAB). He has co-authored more than 200 scientific papers, the majority of which are outputs from projects he led as the Principal Investigator (PI) in domains, including machine learning, data science, robotics, metaheuristic optimisation, computational finance, cognitive systems, and computational neuroscience. His work on self-organised criticality, data analysis and data interpretation as well as control of robotic behaviour is of particular importance.

Abstract: PINNs promise a fascinating merger between exact theory and real-world data. Their growing popularity has lead to a wealth of experiences and a number of impressive successes, and within less than a decade of research in this field, virtually every method in machine learning has been studied in combination with PINNs. Adaptive and exploratory variants are becoming practically interesting, and some theoretical advances have been made so that limitations in regard to scalability and compatibility of physical and learning dynamics are well understood. In addition to giving an overview of the field, we highlight several application cases, in particular beyond the physics domain, to demonstrate that PINNs can be show their benefits even for inexact knowledge and sparse data. Another focus will be set on the combination of PINNs with deep reinforcement learning where we can show that PINNs form an efficiently solvable multi-objective learning problem. Finally, we discuss interpretability of PINNs in comparison to the interpretability of neural networks in general.

Invited Speakers

Dr. Muhammad Afzal

Birmingham City University, UK

Speech Title: Turning Readable Science into Computable Knowledge with Modern AI

London Time	10:50-11:10, Nov. 15	**Onsite Room**	**SODA 2.19**

Biography: Dr. Muhammad Afzal is an Associate Professor of Computer Science with over 15 years of academic and research experience and has authored more than 100 scientific papers. He is based at Birmingham City University, UK, and holds an academic faculty position at McMaster University, Canada. He has participated in research projects totalling more than USD 15 million and is currently Principal Investigator on two projects exceeding USD 300k. His research focuses on innovative methods for AI-powered evidence-based systems, particularly in health informatics, as well as energy-efficient AI models such as large and small language models and transformer-based architectures for text mining. Dr. Afzal is actively engaged in the global research community as an editor, reviewer, and technical committee member for leading journals and conferences. He also serves on the executive board of the Scientific Knowledge Accelerator Foundation (SKAF), an organization dedicated to making scientific knowledge computable by promoting standardized, interoperable terminologies for evidence-based medicine.

Abstract: The rapid growth of scientific literature especially biomedical knowledge presents both an opportunity and a challenge for evidence-based practice. Modern AI models, including Large Language Models (LLMs), Transformer architectures, and Explainable AI frameworks, offer powerful tools to extract, structure, and interpret biomedical knowledge efficiently. By transforming human-readable scientific knowledge into computable, actionable insights, these technologies can support efficient decision-making and accelerate translational research. This talk will explore state-of-the-art AI approaches for biomedical knowledge extraction, their role in evidence-based systems, and how interpretability ensures trust and adoption in clinical practice, ultimately bridging the gap between data and informed care.

Dr. Pasquale Coscia

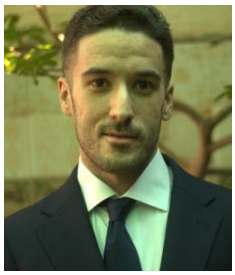
Università degli Studi di Milano, Italy

Speech Title: Transparent and Reliable AI for Industrial Visual Anomaly Detection

London Time	11:10-11:30, Nov. 15	**Onsite Room**	**SODA 2.19**

Biography: Pasquale Coscia is a Tenure-Track Researcher in the Department of Computer Science at the Università degli Studi di Milano and a member of the Industrial, Environmental and Biometric Informatics (IEBI) Laboratory. He earned his Ph.D. degree (2019) in Industrial and Information Engineering from Università degli Studi della Campania "Luigi Vanvitelli", Italy. From 2019 to 2022, he was a post-doctoral researcher at the Università degli Studi di Padova, Italy. In 2024, he was a Visiting Researcher at the University of Toronto, ON, Canada. He is the Co-chair of the Intelligent Measurement Systems Technical Committee (TC-22) of the IEEE Instrumentation and Measurement Society (since 2023). His research activities focus on theoretical, methodological, and applied aspects of computational intelligence for signal and image processing.

Abstract: Industrial AI provides promising solutions for monitoring and improving complex manufacturing processes, but it faces significant challenges, including limited labeled data, proprietary constraints, and the need for transparent and reliable systems. Explainable AI (XAI) techniques address these challenges by offering interpretable visualizations, feature attributions, and attention maps that reveal why anomalies are detected and help identify potential biases in the system. Building on this, generative models can produce novel defective samples, effectively augmenting scarce anomaly data and improving detection performance in low-data regimes. This talk will review state-of-the-art methods for industrial visual anomaly detection, present concrete examples of XAI and generative approaches in real-world industrial scenarios, and outline research directions aimed at integrating interpretability, data efficiency, and robustness to advance industrial AI systems.



Dr. Angel Miguel Garcia Vico

University of Jaén (UJA), Spain

Speech Title: Spiking Neural Networks: A Leap Towards Energy-Efficient AI

London Time	11:30-11:50, Nov. 15	**Onsite Room**	**SODA 2.19**

Biography: Dr. Ángel Miguel García Vico is an Associate Professor in the Department of Computer Science at the University of Jaén (UJA), and a member of the SIMIDAT research group. He completed his PhD in 2020 and has authored over 20 scientific papers in JCR-indexed journals are more than 20 conferences papers. He has participated in numerous national research projects totalling more than €1 million, and securing over €1,150,000 in collaborative research with several companies, highlighting major companies such as Renault and Meltio. His academic career is distinguished by receiving both the Extraordinary Degree Award and the Extraordinary PhD Award from the University of Jaén. His research focuses on supervised descriptive rule discovery, particularly Emerging Pattern Mining (EPM), sustainable AI using Spiking Neural Networks, and applications of this kind of models in anomaly detection or predictive maintenance problems. Dr. García Vico is also the founder of the company Glosso (https://glosso.ai/) and a passionate advocate for open and replicable science.

Abstract: As the demand for more powerful AI models grows, so does their energy consumption. Spiking Neural Networks (SNNs) offer a promising, energy-efficient alternative to conventional deep learning models. This talk will introduce the core concepts of SNNs, drawing parallels to their biological counterparts. We will discuss why SNNs are inherently more power-efficient and explore the mechanisms of spike-based information processing. The presentation will briefly touch upon various encoding and learning strategies for SNNs. Finally, we will present several compelling applications where SNNs are making a significant impact. This session is intended for anyone interested in the future of low-power AI and neuromorphic computing.

Dr. Ferdi Sarac

Süleyman Demirel University, Turkey

Speech Title: Challenges of Large Language Models in Clinical Decision Making

London Time	11:50-12:10, Nov. 15	Onsite Room	SODA 2.19

Biography: Ferdi Sarac, received his Master's degree in Software Engineering in 2013 from St. Mary's University in Texas, USA, where he had the honor of being named to the Dean's Honor List on three separate occasions. In 2018, he was awarded a Ph.D. in Computer Engineering from Northumbria University in Newcastle, United Kingdom. Since 2018, he has been serving as an Assistant Professor in the Department of Computer Engineering at Süleyman Demirel University. He has also engaged in teaching activities across Europe, including Germany, Italy, Poland, Serbia, and Romania. His current research interests include the application of artificial intelligence in healthcare, machine learning, web accessibility for the visually impaired, image processing, and large language models.

Abstract: The emergence of large language models (LLMs) such as ChatGPT and Gemini holds considerable promise for transforming clinical practice by enabling rapid management of patient data, supporting diagnosis and decision-making, and assisting in areas such as surgical planning. There has been a notable proliferation of investigations into the potential utility of large language models as adjuncts in clinical environments. However, while these models present significant opportunities, their deployment in clinical medicine must be approached with caution. Given the sensitivity of medical decision making and patient care, LLMs also raise important technical challenges including hallucinations and integration difficulties as well as ethical concerns such as transparency and liability. This talk will examine the salient technical and ethical challenges associated with the integration of large language models into clinical practice and will propose possible solutions for mitigating these concerns.

Onsite Oral Sessions

Session 1: Machine Learning Algorithms and Model Advancement 13:15-15:30, Nov. 15 @ SODA 3.13 Chair: Maurizio Naldi, LUMSA University, Italy		
13:15-13:30	A1003	Performance Trade-offs in Explainability-as-a-Service Using Surrogate Linear Models Giuseppe D'Acquisto, Paolo Fantozzi, **Maurizio Naldi** LUMSA University, Italy
13:30-13:45	A1007	Evaluating the Impact of Background Complexity on Deep Learning Model Performance Hira Batool, **Muhammad Abu Bakr**, Sultan Daud Khan National University of Technology, Pakistan
13:45-14:00	A1036	Evaluation of Bagging Predictors with Kernel Density Estimation and Bagging Score **Philipp Seitz**, Jan Schmitt, Andreas Schiffler Technical University of Applied Sciences Würzburg-Schweinfurt, Germany
14:00-14:15	A1040	Enhancing Stellar Distance Estimation with Uncertainty-Weighted Loss Functions in Deep Learning Models **Nicholas Kania**, Deborah Busonero, Chiara Contoli, Valerio Freschi, Emanuele Lattanzi University of Urbino, Italy
14:15-14:30	A1050	Improving Bayesian Optimization for Portfolio Management with an Adaptive Scheduling **Zinuo You**, John Cartlidge, Karen Elliott, Menghan Ge, Daniel Gold University of Bristol, UK
14:30-14:45	A1052	Reconstruction-Based Methods for Multivariate Time Series Anomaly Detection : A Review and Taxonomy **Salma Errachidi**, Aimilia Tasidou, Ahmed Nait Chabane, Karim Beddiar École d'ingénieurs française CESI, France
14:45-15:00	A1067	AFD-KD: Attention-Guided Feature Distillation from Transformer to Lightweight CNNs for Efficient Time Series Forecasting **Sangjin Na** Pusan National University, South Korea

15:00-15:15	A1089	I- and API-Orchestrated Consent Renewal for GDPR/PECR: A Framework for Intelligent Consent Lifecycle Management **Olusegun Akinfenwa** Independent Researcher, UK
15:15-15:30	A1101	Automated Trust-Aware Software Vulnerability Scoring via Explainable Feature Alignment **Seyedeh Leili Mirtaheri**, Amirhossein Majd, Reza Shahbazian, Andrea Puliese University of Calabria, Italy

Session 2: AI Systems, Frameworks and Social Applications 13:15-15:30, Nov. 15 @ SODA 3.14 Chair: Ahcene Bounceur, University of Sharjah, UAE		
13:15-13:30	A1047	Identifying Transferable AI Use Cases for Scrum through an Analysis of Software Development Methods **Dijana Peras**, Zlatko Stapić University of Zagreb, Croatia
13:30-13:45	A1070-A	Conversational Robots for Elderly Support: Towards Natural Multi-User Interaction in a Super-Aged Society **Shinya Takahashi**, Asako Watanabe, Hokuto Ototake, Naoyuki Tsuruta Fukuoka University, Japan
13:45-14:00	A1073	Feature-based Data-driven Movement Detection of a Lightweight Mass on a Steel Rope Using Vibration Analysis **Kurt Pichler**, Sandra Schober, Sabrina Fleischanderl, Gerhard Kaineder, Christian Weseßlintner, Wolfgang Stadlbauer Linz Center of Mechatronics GmbH, Austria
14:00-14:15	A1077	Designing an AI-Driven Framework for Adaptive 3D Multimedia Learning Environments **Jiruth Patanachan** King Mongkut's University of Technology Thonburi, Thailand
14:15-14:30	A1078	TwinFlow: A Conceptual Framework for Digital Twin Personas in Agile Software Development **Toyese Oloyede**, Olatunji Sikiru, Fatimat Okeleye, Esther Eboesomi, Oke Oviemuno Anthony, Olusegun Akinfenwa, Arinzechukwu Hipolite Madukasi, Christian Chimezie Independent Researcher, UK
14:30-14:45	A1091	Trust Estimation in Online Social Networks via Reinforcement Learning and Hypergraph Structures Narges Movahedkor, Alireza Bagheri, **Seyedeh Leili Mirtaheri**, Andrea Pugliese University of Calabria, Italy
14:45-15:00	A1086	Multi-Agent AI-Based Digital Twin for Smart Parking Energy Optimization **Ahcene Bounceur** University of Sharjah, UAE

15:00-15:15	A1102	Dependency Driven, Decentralised Execution for Scalable AI Teams **Samir Ouarbya** University of London, UK
15:15-15:30	A1104	Integrating ML and XAI with Urban Planning: Air Quality Predictions to Support Traffic Optimization **Marija Kopanja**, Polina Maglevannaia, Marina Carević Tomić, Nikola Obrenović University of Novi Sad, Serbia

Session 3: Intelligent Healthcare and Medicine 13:15-15:30, Nov. 15 @ SODA 3.15 Chair:		
13:15-13:30	A1026	Predicting Typhoid Fever Risk: Integrating Biological, Environmental, and Socioeconomic Factors through Machine Learning **Said Baadel**, Jeremiah Obi, Ekerette Attai, Kingsley Attai, Nnette Ekpenyong, Faith-Michael Uzoka Mount Royal University, Canada
13:30-13:45	A1051	AI-Powered Chatbots vs. Traditional Clinical Methods in Mental Health Assessment: A Comparative Review **Mona Alkhozae** King Abdulaziz University, Saudi Arabia
13:45-14:00	A1030	Predicting Enteric Fever Severity Using Non-Clinical Data: A Machine Learning Approach for Low-Resource Settings **Toka Hassan**, Said Baadel, Faith-Michael Uzoka Mount Royal University, Canada
14:00-14:15	A1072-A	LLM-Based Prediction of Return to Sport after Lateral Ankle Ligament Surgery Using Integrated Clinical Data and Expert Knowledge **Yingyin Li**, Pengpeng Feng, Xiao Li, Jiao Li Chinese Academy of Medical Sciences, China; Peking Union Medical College, China
14:15-14:30	A1081	Fall Detection using Convolutional Neural Network and Image Explainer for Enhancing Elderly Care. **Paul Chukwurah** The Owl Therapy Centre, UK
14:30-14:45	A1099	BG-delta-k-WLNM: Drug-Target Interaction Prediction Framework Using a Bipartite Graph Model and Local-k-dimensional Weisfeiler Lehman Neural Machine **Maryam Fayaz Roohi**, Yangjun Chen University of Winnipeg, Canada
14:45-15:00	A2337	Clinical Reasoning-driven Progress Evaluation of Medical Students using Large Language Models **Heitor Soares Mattosinho**, Fernando Valente, Gabriel Leite, Ligia Maria Cayres Ribeiro, Marco Antonio Carvalho Filho, André Santanchè University of Campinas, Brazil

15:00-15:15	A2341-A	The Intervention of Digital Intelligence Empowered Physical Fitness Training on Repetitive Stereotypic Behaviors in Autistic Children **Tianqi Wang**, Jieyou Zhou GuangZhou Sports University, China
15:15-15:30	A2561-A	Reimagining Learning, Integrity, and Identity in Undergraduate Medical Educators in Age of Generative AI: A Qualitative Study **Nida Sajjad**, Mark Anderson Imperial College London, UK

Session 4: Natural Language Processing and Large Language Models 16:00-18:00, Nov. 15 @ SODA 3.13 Chair: Ferdi Sarac, Suleyman Demirel University, Turkey		
16:00-16:15	A1031	Can Naive Bayes Still Catch Spam? A Study on AI-Modified Emails **Tobias Hočevar**, Jana Medková University of Hradec Králové, Czech Republic
16:15-16:30	A1032	Hallcuination Prediction in Large Language Models Uisng Contextual Analysis **Aisha Olomowewe**, Andrew Starkey, Yaji Sripada University of Aberdeen, UK
16:30-16:45	A1039	Teaching LLMs to Move: Generation of Human Activity Sensor Traces with BERT **Leonardo Bigelli**, Alessandro Bogliolo, Lorenzo Calisti, Chiara Contoli, Nicholas Kania, Emanuele Lattanzi University of Urbino, Italy
16:45-17:00	A1049	Developing an Extended Online Grooming Dataset to Evaluate the Robustness of Context Determination Using BERT **Jake Street**, Isibor Ihianle, Ahmad Lotfi Nottingham Trent University, UK
17:00-17:15	A1053	TALME: Topical Adversarial LLM-based Misinformation Enforcer **Xinyu Hu**, Hanbo Yu, Zhiwei Fu, Steven H. H. Ding, Benjamin C. M. Fung, Devin Pereira, Jun Meng McGill University, Canada
17:15-17:30	A1076	Bias in Recruitment Systems Utilizing Large Language Models Nupur Chandrashekhar Deshmukh, Sharayu Sunil Mhaske, Lakshmi Soujanya Chandra, Jayani Rachapudi, **Tai Le Quy**, Frank Hopfgartner University of Koblenz, Germany
17:30-17:45	A1079	CoGuard: A Large Language Model-Based Multi-Agent System for Autonomous Security Policy Enforcement in Cloud Environments **Kazeem Adamson Mutiu**, Chijioke Erasmus Ogbonna, Teslim Kazeem, David Onoja, Bolaji Richard Adesina , Oluwaseun Bantale, Olufemi Emmanuel Owolabi , Christopher John Ozurumba Independent Researcher, UK
17:45-18:00	A1105	A Comparative Study of Large Language Models for Identifying Fractures in Lumbar Spine CT Scan **Ferdi Sarac** Suleyman Demirel University, Turkey

Session 5: Computer Vision and Remote Sensing Analysis 16:00-18:15, Nov. 15 @ SODA 3.14 Chair: Santitham Prom-on, King Mongkut's University of Technology Thonburi, Thailand		
16:00-16:15	A1022	Building-CVGAE: Constrained Variational Graph Autoencoder For Architectural Volumetric Design Generation **Mohammed El Amine Sehaba**, Xavier Marsault, Serge Miguet University Lyon 2, France
16:15-16:30	A1027	Applications, Algorithms, Advances, and Challenges: Hyperspectral Imaging and Machine Learning for Livestock Health Monitoring Maisarah Mohd Sufian, **Ervin Gubin Moung**, Mohd Hanafi Ahmad Hijazi, Chin Kim On, Jamal Ahmad Dargham, Januarius Gobilik Universiti Malaysia Sabah, Malaysia
16:30-16:45	A1042	A Vision-Language-Action Framework for End-to-End Robotic Manipulation Using Qwen2-VL-Instruct **Mariam Kashkash**, Mohsen Guizani Mohamad Bin Zayed University of Artificial Intelligence, UAE
16:45-17:00	A1055	TempFuseNet: Temporal Coordination and Progressive Attention-Guided Decoding for Bitemporal Change Detection in Remote Sensing Imagery **Santitham Prom-on** King Mongkut's University of Technology Thonburi, Thailand
17:00-17:15	A1060	Onboard AI for Environmental Monitoring: Early In-Orbit Results from Multi-Mission Demonstrations Thomas Goudemant, **Clotilde Szywala**, Adrien Girard IRT Saint Exupéry, France
17:15-17:30	A1074	Knowledge-Driven Vision-Language Model for Plexus Detection in Hirschsprung's Disease Youssef Megahed, **Atallah Madi**, Dina El Demellawy, Adrian D. C. Chan Carleton University, Canada
17:30-17:45	A1080	Defect Detection and Classification using K-Means Clustering for Pulse Compression Favourable Thermal Wave Imaging **Priyanka Das**, Ravibabu Mulaveesala Indian Institute of Technology Delhi, India
17:45-18:00	A1095	A Multimodal Recommendation System for Real Estate Listings **Tan Doruk Yetki**, Hacer Turgut, Mehmet Gönen iLab, Turkey

18:00-18:15	A1041	A Comparative Evaluation of One-Stage and Two-Stage Deep Learning Models Using an Augmented Industrial Dataset **Immanuel Ojji**, Hossein Malekmohamadi, Xin Lu, Serhan Cosar De Montfort University, UK

Session 6: AI and Innovative Education 16:00-18:15, Nov. 15 @ SODA 3.15 Chair: Thomas Eberle, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany		
16:00-16:15	A1048	An AI-Driven Constructivist and Knowledge-Based Learning Model for Enhancing Problem-Solving Skills in Cloud Computing Education **Nuttapong Prasertsung** King Mongkut's University of Technology Thonburi, Thailand
16:15-16:30	A2014	Learning Experience of Lanna Wisdom Using Metaverse Towards a Creative Economy **Niramol Prasertphongkun**, Phobson Tichai, Ruenglada Punyalikhit, Pallop Piriyasurawong, Prachyanun Nilsook Rajamangala University of Technology Lanna, Thailand
16:30-16:45	A2019	Innovative Methods of Human-AI Collaboration in Art Education **Waiyawat Saitum** King Mongkut's University of Technology Thonburi, Thailand
16:45-17:00	A2023	AI-Based Model with Intelligent Production Stages for Educational Video Creation **Naphatsanan Suwannawong**, Phatchareephorn Bangkheow, Prachyanun Nilsook, Panita Wannapiroon, Siwaporn Linthaluek King Mongkut's University of Technology Thonburi, Thailand
17:00-17:15	A2031-A	Students' motivation to learn with AI: A mixed methods research **Jiajing Li** Beijing Normal University, China
17:15-17:30	A2033-A	Can an AI-Powered Presentation Platform Based On The Game "Just a Minute" Be Used To Improve Students' Public Speaking Skills? **Frederic Higham**, Tommy Yuan University of York, UK
17:30-17:45	A2338	Developing a Immersive Learning Environment for Visual Sign Language Acquisition on Specific Vocabulary in Print Design: Toward Equitable Education for Deaf Learners **Phobson Tichai**, Ruenglada Punyalikhit, Veerawat Sirivesmas Silpakorn University Thailand
17:45-18:00	A2344	German Students' Views on Using Generative AI for Homework: A Three-Layered Ethical Reasoning Model **Zinaida Adelhardt**, Thomas Eberle Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany

18:00-18:15	A2345	Cross-National Perceptions of Generative AI in Higher Education- A Comparative Study of University Students in the UK and Turkey **Ozan Evkaya**, Selcuk Kilinc, Sezer Kizilates University of Edinburgh, UK

Poster Session

Posters 15:30-16:00, Nov. 15 @ Foyer	
A1005	Detection of Structural Damages for Petroglyphs of Bangudae Terrace using Edge Extraction based on Deep Learning **Sang-Yun Lee**, Dong-Jun Shin Electronics and Telecommunications Research Institute, South Korea
A1008-A	From Google to ChatGPT-4o: Evaluating the Utility of Generative AI in Correcting Health Misinformation Lingxin Yin, **Kai Li** Guangxi University, China
A1035-A	Sequential Deep Learning with Feature CompressionandOptimalState Estimation for Robust Visible Light Positioning **Negasa Berhanu Fite**, Getachew Mamo Wegari, Heidi Steendam Ghent University, Belgium
A1063	An Adaptive Weighted Deep Forest Classification Model based on WKNN **Tianyuan Chen** Minnan Normal University, China
A2009-A	The Integration of Augmented Reality (AR) in Saudi Arabia's STEM Special Education: Impact on Student Engagement and Learning Outcomes **Mubarak Saad Aldosari** Prince Sattam Bin Abdulaziz University, Saudi Arabia

Lab Visit

Time	Activities
10:00-10:15	AI Instrument Demo (4.06)
10:15-10:30	Virtual Production Lab
10:30-10:45	MoCap Lab
10:45-11:00	Film Demo Dead-Rom
11:00-11:15	VR Lab
11:15-11:30	Stop Motion Facilities
11:30-12:00	Modal Gallery Transvaluation & SODA Planetary Conscientiousness Exhibitions

There are a couple of exhibitions on at the moment, https://atm.mmu.ac.uk/ and https://www.mmu.ac.uk/news-and-events/events/detail/planetary-consciousness-ecosystems-care which feature some AI work.

Meeting Time: Before 9:50 a.m.
Meeting Location: SODA Ground Floor Reception

Online Oral Session

Session 7: AI in Education and Professional Domain Applications (Online Only) 10:30-12:00, Nov. 16 | Zoom ID: 84086941872 Chair:		
10:30-10:45	A0004	Patent Retrieval with Few-Shot Fine-Tuning and Quantized Embeddings **Renukswamy Chikkamath**, Linda Andersson, Markus Endres Hochschule München, Germany
10:45-11:00	A1044	Analysis of Factors affecting Project Team Success in Post-Disaster Reconstruction Projects using Neural Network-based Feature Evaluation Technique **Jun Jun H. Moreno**, Dante L. Silva, Kevin Lawrence M. De Jesus, Renato A. Borja Jr., Donna Ville L. Gante,; Meriam P. Leopoldo, Bon Ryan P. Aniban, Crispin S. Lictaoa, Ralph Alwin M. De Jesus, Jordan N. Velasco FEU Institute of Technology, Philippines
11:00-11:15	A1057	Category-Level Segmentation of Repeated Objects using SAM2 Memory System Jiayi Wang, **Matthias Kayser**, Yipeng Sun, Andreas Maier Robert Bosch GmbH, Germany
11:15-11:30	A2029	Experiential Design Thinking Learning Model through Virtual Co-Working spaces **Noppadol Saikatikorn**, Panita Wannapiroon, Prachyanun Nilsook King Mongkut's University of Technology North Bangkok, Thailand
11:30-11:45	A2343	Evaluating the Evaluators: Metrics for Automated Essay Feedback Generation **Maryam Berijanian**, Christopher Shaltry,Dirk Colbry Michigan State University, United States
11:45-12:00	A2347	Malware Analysis Education Meets LLMs: Understanding Student Use of LLMs in Malware Analysis Education Orçun Çetin, **Nazli Biyikli** Sabancı University, Turkey

Session 8: Digital Image Analysis and Processing Technology (Online Only) 13:30-15:30, Nov. 16 | Zoom ID: 84086941872 Chair:		
13:30-13:45	A1009	Efficient vision transformer training routine for Diabetic Foot Ulcer semantic segmentation **Arturas Kairys**, Vidas Raudonis Kaunas University of Technology, Lithuania
13:45-14:00	A1010	Using LLMs as Prompt Modifier to Avoid biases in AI Image Generators **René Peinl** Hof University of Applied Sciences, Germany
14:00-14:15	A1020-A	Common-Path Interferometry-Based Noise Filtering Technique for Time Series Data **Renaud Axel Monentchame Eba**, Doohee Chung, Hong Jin Kong Handong Global University, South Korea
14:15-14:30	A1059	Prompt Sentiment: The Catalyst for LLM Change **Vishal Gandhi**, Sagar Gandhi Joyspace AI, United States
14:30-14:45	A1069	A Spatiotemporal Deep Learning Framework for ENSO Prediction Using Vision-Mamba RNN with Dynamic Activation Functions **Wen-Chieh Wu**, Dong-Lin Li National Taiwan Ocean University, Taiwan
14:45-15:00	A1033	Adversarial Robustness **Tameem Adel** National Physical Laboratory (NPL), UK
15:00-15:15	A1082	Computational Intelligence via Artificial Neural Network-Particle Swarm Optimization for Multi-Directional Displacement Prediction in High-Rise Steel Diagrid Frames Dante L. Silva, Kevin Lawrence M. De Jesus, Jimmy G. Catanes, Cirilo Mar Pat M. Gazzingan III, Crispin S. Lictaoa, Meriam P. Leopoldo, **Jun Jun H. Moreno** FEU Institute of Technology, Philippines
15:00-15:30	A1034	Uncertainty Estimates for Support Vector Machines in the Transfer Learning Paradigm **Tameem Adel** National Physical Laboratory (NPL), UK

We are pleased to announce that **The 9th International Conference on Machine Vision and Applications (ICMVA 2026)** is to be held in Nanjing, Jiangsu, China during April 24-26, 2026. The conference is sponsored by Nanjing University of Science and Technology, University of Stuttgart, organized by School of Electronic and Opical Engineering, supported by University of Tartu, Okayama University, University of Évora, Gifu Shotoku Gakuen University, and National Taiwan University of Science and Technology.

Publication

Submitted papers will be peer-reviewed by the conference technical program committees.

Based on the reviewer's comments, papers are accepted, rejected or accepted with revision. Accepted and registered Papers can be published in **SPIE Conference Proceedings**, which can be indexed by **EI Compendex, SCOPUS**, etc.

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Get more history information here.

Scopes

We encourage original submissions related to, but not limited to the following communication engineering topics:

- Computer Vision
- Active Vision
- 3D-Vision
- Machine Learning
- Deep Learning
- Image Processing
- Image Processing Methods
- Computational Imaging
- Machine Vision Systems and Components
- Machine Vision
- Image Forensics and Identification

For More Please Visit: https://icmva.org/cfp.html

Submission Methods

- Send your manuscript directly to conference official email: icmva@sciei.org
- Please log in the Submission System to submit your paper (https://www.zmeeting.org/submission/icmva2026)

*__Full paper submission__ can be published in conference proceeding after reviewing and registration.
__Accepted abstract__ will be included in conference program but will not be published. Authors will be invited to give an oral/poster presentation on site.

Call for Special Sessions

We cordially invite fellow researchers to propose tracks on their particular interest field. Each session is to be organized by chairs.

Submissions special session proposals should be e-mailed to icmva@sciei.org before January 10, 2026. Notifications of acceptance or rejection of proposed tracks will be sent out before January 20, 2026.

Proposals should include the following information:
1. Special session title and brief introduction
2. General information of organizers (mail address of main contact person, biodata)
3. Potential participants
4. Please send your proposal to icmva@sciei.org.

Important Dates

Submission Deadline: November 30, 2025
Notification: December 30, 2025
Registration Deadline: January 20, 2026

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Contact: Ms. Anna Carter Email: icmva@sciei.org Webchat: 18207777775

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2026 the 16th International Workshop on Computer Science and Engineering

Fukuoka, Japan | June 11-13, 2026

Call for Papers

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Paper Submission

IMPORTANT DATES

Submission due: January 20, 2026

Notification: February 20, 2026

Registration: March 10, 2026

Submission ways:

Option 1. ABSTRACTS (Presentation Only)

All submitted abstracts will be peer-reviewed by our committees, and accepted one will be included in the conference program only, provided at the conference.

Option 2. Full Paper (Paper Publication)

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