



**SRI LANKA ASSOCIATION FOR
ARTIFICIAL INTELLIGENCE**

21st Annual Sessions

9th SLAAI - International Conference on Artificial Intelligence

(SLAAI-ICAI-2025)

19th & 20th November 2025

The Open University of Sri Lanka
Nawala, Nugegoda

Sri Lanka.

Sri Lanka Association for Artificial Intelligence – 2025
SLAAI International Conference on Artificial Intelligence
19th & 20th November 2025
The Open University of Sri Lanka,
Nawala, Nugegoda.

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Editors:

Dr. M.K.A. Ariyaratne, University of Sri Jayewardenepura
Dr. B. Hettige, University of Sri Jayewardenepura
Prof. H.U.W. Rathnayake, The Open University of Sri Lanka

Sri Lanka Association for Artificial Intelligence,
Department of Electrical & Computer Engineering,
The Open University of Sri Lanka,
Nawala, Nugegoda, Sri Lanka.

9th SLAAI International Conference on Artificial Intelligence
20th November 2025
Agenda

08:00 am	Welcoming Invitees
08:30 am	National Anthem / Lightning of the Oil Lamp
08:45 am	Welcome Address - Dr. B. Hettige, President SLAAI
08:50 am	Introduction to SLAAI
08:55 am	Address by the Chief Guest Vice Chancellor, The Open University of Sri Lanka
09:10 am	Award Ceremony - Best Undergraduate AI Project
09:40 am	Launching - Journal of Sri Lanka Association for Artificial Intelligence (JSLAAI)
09:50 am	Keynote Speech I Dr. Romesh Ranawana, Dialog Axiata, Colombo
10:20 am	Sponsorship Videos
10:35 am	Vote of Thanks - Dr. Rukshima Dabare, Secretary SLAAI
10:40 am	Refreshments
11:15 am	Technical Sessions – 1 (Parallel Sessions 1 – 7)
01:30 pm	Lunch
02:00 pm	Keynote Speech II (Via Zoom) Prof. Tom Gedeon, Chair in AI, Curtin University
02:30 pm	Technical Sessions – 2 (Parallel Sessions 8 – 14)
05:00 pm	Best Paper Awards
05:15 pm	Refreshments
05:30 pm	SLAAI AGM

-Message from SLAAI President –



It gives me great pleasure to extend my warmest greetings to all participants of the 9th International Conference on Artificial Intelligence (SLAAI-ICAI-2025), held in conjunction with the 21st Annual Session of the Sri Lanka Association for Artificial Intelligence (SLAAI). Since its founding in 2000, SLAAI has remained dedicated to advancing Artificial Intelligence research, education, and responsible innovation in Sri Lanka.

Over the past twenty-five years, SLAAI has evolved into a nationally recognized academic nonprofit organization and a vibrant platform for collaboration among researchers, professionals, and students in the field of AI. The recognition of this year's conference as an IEEE-co-sponsored international event underscores the Association's academic excellence and its growing influence locally and globally.

This year also marks several significant milestones. The introduction of the Best AI Project Awards aims to inspire and recognize exceptional undergraduate innovations in Artificial Intelligence, with the awards to be presented during the Inaugural Session. Additionally, we proudly launch the Journal of the Sri Lanka Association for Artificial Intelligence (JSLAAI)—a dedicated scholarly platform designed to disseminate high-quality AI research and encourage interdisciplinary engagement.

A special word of appreciation is extended to the Vice-Chancellor of the Open University of Sri Lanka (OUSL), who graces this event as our Chief Guest. OUSL holds a unique and symbolic place in SLAAI's history as the birthplace of the Association twenty-five years ago. Returning to this institution to celebrate our continued growth is both meaningful and inspiring. I also extend my sincere thanks to the OUSL organizing team for their exceptional support in hosting this prestigious event.

My heartfelt appreciation also goes to our Keynote Speakers, whose expertise and insights enrich the academic quality of the conference and inspire our AI community toward new research directions and innovation.

I extend my sincere gratitude to Prof. Udita Rathnayake, Dr. Anuradha Ariyaratne,

and Dr. Kalani Ilmini, together with the entire organizing team, for their exemplary leadership, coordination, and unwavering commitment in bringing this event to a successful conclusion.

Today, seventy six (76) research papers are being presented across around fourteen (14) technical sessions, reflecting the strong and growing interest in Artificial Intelligence research in Sri Lanka and beyond. I extend my warmest congratulations to all authors and presenters for their valuable contributions to advancing the field of Artificial Intelligence. Thank you, and let us continue to work together to advance AI for the benefit of humanity and society.



Dr. B Hettige

President/ Sri Lanka Association for Artificial Intelligence (SLAAI)

20.11.2025

- Message from Conference Chair-



It is a great honour to extend my warmest greetings to all participants of the 9th SLAAI International Conference on Artificial Intelligence (SLAAI-ICAI-2025), organized by the Sri Lanka Association for Artificial Intelligence (SLAAI).

Founded in 2000, SLAAI has now surpassed twenty-five years of continuous contribution to the advancement of Artificial Intelligence education, research, and innovation in Sri Lanka. As a founding member of SLAAI, I take pride in seeing its growth into a leading national organization that brings together researchers, educators, professionals, and industry partners to extend the boundaries of AI. This year, SLAAI-ICAI-2025 received an impressive 187 paper submissions from both local and international researchers. After a rigorous double-blind peer-review process, over seventy (70) high-quality papers have been accepted for presentation. These papers reflect the growing depth, diversity, and excellence of AI research in Sri Lanka and beyond, covering key areas such as machine learning, data science, natural language processing, robotics, agentic AI, and computer vision. I wish to express my sincere appreciation to The Open University of Sri Lanka (OUSL) for graciously hosting this year's conference and providing exceptional institutional support. My heartfelt thanks also go to all subcommittees, including the Technical Program Committee, Publication Committee, Finance Committee, Publicity Committee, and Registration Committee, for their professionalism, commitment, and teamwork in ensuring the success of this event.

I also extend my gratitude to all authors, reviewers, session chairs, and members of the SLAAI Executive Council for their invaluable contributions and dedication to maintaining the high academic standards of this conference.

As SLAAI celebrates more than 25 years of excellence, I am deeply encouraged to see its continued progress and growing impact in shaping Sri Lanka's AI landscape. I am confident that SLAAI-ICAI-2025 will serve as an inspiring platform for collaboration, knowledge exchange, and innovation, paving the way for the responsible and meaningful

advancement of Artificial Intelligence research for the benefit of society.

Finally, I am grateful to the entire SLAAI team for their unwavering commitment and outstanding service to make SLAAI-ICAI-2025 a great success.

Warm regards,

Professor Asoka Karunananda

Conference Chair, SLAAI-ICAI 2025

18/11/2025

- Message from Technical Programme Chair-



It is with immense pride and excitement that I welcome you to the 9th SLAAI International Conference on Artificial Intelligence (SLAAI-ICAI) 2025, marking nearly 25 years of fostering AI excellence since founding of Sri Lanka Association for AI in 2000. The 9th International conference continues our tradition of rigorous double-blind peer review, emphasizing originality, significance, technical soundness, and impactful presentation. With the technical co-sponsorship of IEEE for the fifth time, our conference has grown into a premier platform drawing global talent and showcasing innovations that bridge theory and practice.

This year, the conference received an overwhelming response of 187 paper submissions, of which 86 were accepted after rigorous peer review. This acceptance rate adhering to IEEE guidelines, reflects the high standard of research and innovation presented at SLAAI-ICAI 2025. This year's theme, "Responsive and Responsible AI for a better Future" is a blueprint for the ethical and adaptive evolution of AI, one that places humanity at its core while addressing the pressing demands of our rapidly changing world.

What does "responsive" mean in the age of AI? It speaks to systems that listen, adapt, and act with agility—AI that responds in real-time to environmental cues, societal needs, and unforeseen challenges. Imagine AI-powered early warning systems for climate disasters or adaptive learning platforms that tailor education to each undergraduate's unique pace in universities. Responsiveness ensures AI isn't a static tool but a dynamic partner !

Being "responsible" demands accountability, transparency, and inclusivity. We must build AI that is free from bias, respects privacy, and amplifies diverse voices—especially those from the Global South, where data scarcity and digital divides can otherwise widen inequalities. Responsible AI means auditing algorithms for fairness, fostering governance frameworks that protect vulnerable communities, and prioritizing sustainability so our innovations don't aggravate the very problems they aim to solve.

Together, responsiveness and responsibility forge a better future: one where AI drives

equitable growth, from precision agriculture boosting Sri Lanka's food security to trustworthy diagnostics revolutionizing healthcare access. At this conference, our keynotes, workshops, and Technical Paper sessions will unpack these ideas.

As we convene in the spirit of SLAAI's enduring commitment – established to develop AI for Sri Lanka and beyond – let us harness intelligent technologies to forge sustainable, inclusive futures with more responsive and responsible AI.

Thank you!

Prof. H.U.W. Rathnayake

Technical Program Chair/SLAAI-ICAI 2025

18.11.2025

- Keynote Speech I -

A Paradigm Shift in Research: From Manual Inquiry to AI Assistant

Dr. Romesh Ranawana

Group Chief Analytics and AI Officer at Dialog Axiata

Scientific research today faces a dual challenge: an unprecedented explosion in literature, tools, and expectations—and an urgent call to produce outcomes that matter beyond the paper. Meanwhile, large language model (LLM) assistants are now available to every lab. Yet most researchers use them like search boxes, not instruments. The result is shallow evidence coverage, unverifiable citations, brittle code, and workflows that drift from impact.

This talk proposes a shift: from manual inquiry to a reproducible, ethical, and outcome-aligned use of AI assistants. Built on emerging 2025 standards (PRISMA-AI, NIST AI-RMF, ICMJE/COPE disclosure guidance, and TREC attribution benchmarks), it introduces the Coverage → Impact Protocol for research workflows:

1. **WIDEN** your foundation. Use assistants to construct calibrated “evidence engines” with active-learning triage, multilingual grey literature sweep, and citation-first RAG (retrieval-augmented generation). Treat the assistant like a scientific instrument: benchmark it (recall@k, grounded-answer rate), document it, and disclose it alongside your code and data.
2. **ALIGN** research with purpose. Define outcome metrics, constraints, and risk boundaries before prototyping. Use a 2-page Impact Brief and Theory-of-Change to bridge science and uptake.
3. **DECIDE** what’s fit for pilot, scale, or stop. Log every AI-assisted step for reproducibility. Measure time saved, error reduction, and value per compute—not just novelty.

Real case studies will illustrate how this protocol supports national-scale goals—faster reviews, safer triage, better public guidance—without compromising academic integrity. Attendees will leave with evidence-backed tools and a roadmap for using AI in research that is wider, faster, and truer to impact.

Dr. Romesh Ranawana: Dr. Romesh Ranawana is the Group Chief Analytics and AI Officer at Dialog Axiata. He earned his DPhil in Artificial Intelligence from the University of Oxford. Dr. Ranawana has experience as an academic, entrepreneur, and business leader. At Dialog

Axiata, he was instrumental in setting up an AI and analytics division, enhancing the company's operational efficiency and customer service. He founded Enterprise Machine Learning (Pvt) Ltd, providing AI implementation support to various organizations. Dr. Ranawana also founded SimCentric Technologies, a simulation software company, and successfully exited the business after establishing it as a leader in its field. His efforts span multiple sectors, including simulations, gaming, drug design, telecommunications and UAV technology. In addition to his business achievements, Dr. Ranawana is the Chairman of the AI Advisory committee to the ICTA, the former chairman of the National Committee to formulate an AI Strategy for Sri Lanka and the former Chairman of SLASSCOM AI Center of Excellence. He has authored 14 peer-reviewed international publications.

- Keynote Speech II -

Responsive and Responsible AI

Professor Tom Gedeon
Chair in AI, Curtin University

With today's wide availability of inexpensive sensors, we are increasingly collecting data directly from the behaviour of people, using wearables and cameras. This will increasingly allow us to create AI tools which interpret human actions and even reactions to the outputs of our AI tools, and thus fine-tune or modify their output. This will mimic the kinds of non-verbal messaging two people will use during a conversation. This kind of AI which responds to human actions and reactions is in the area of responsive AI.

Responsive AI is the use of sensors on or pointing at people, with the use of AI to predict subtle emotional states, actions and reactions. In practice, this is wearable sensors for skin conductance, heart rate, muscle activation, skin temperature and so on, and cameras for eye gaze, video, thermal cameras or hyperspectral cameras.

The use of AI to detect subtle human internal states poses novel privacy risks, along with the expected privacy risks from video cameras. These risks can be mitigated using privacy preserving approaches, in the area of responsible AI.

Responsible AI is a privacy by design approach to control the private and personal data used. In practice, this means the use of adversarial generative algorithms to remove personal identity information from sensor streams, and from video.

I will describe some of my previous work in these areas, and demonstrate that full use of responsive AI needs responsible AI.

Professor Tom Gedeon: Professor Tom Gedeon is Chair in AI at Curtin University. Previously, he was Professor of Computer Science and former Deputy Dean of the College of Engineering and Computer Science at ANU. He gained his BSc (Hons) and PhD from the University of Western Australia.

Professor Gedeon's main research area is Responsive and Responsible AI. His focus is on the development of automated systems for information extraction, from eye gaze and physiological data, as well as textual and other data, and for the synthesis of the extracted information into humanly useful information resources, primarily using neural/deep networks and fuzzy logic methods, and delivered in real, augmented and virtual environments.

Professor Gedeon has over 400 publications, and has run multiple international conferences. He is a former president of the Asia-Pacific Neural Network Assembly, and former President of

the Computing Research and Education Association of Australasia. He has been General Chair for the International Conference on Neural Information Processing (ICONIP) three times. He has been nominated for VC's awards for postgraduate supervision at three Universities. He is currently a member of the Australian Research Council's College of Experts.

Technical Sessions

Technical Session 1: Parallel Session 1: Morning Session (T1P1)

Location: Board Room, Faculty of Health Sciences

Time: 11.15 am to 1.30 pm

Session Chair: Snr. Prof. Asoka Karunananda, University of Moratuwa

Session Co-Chair: Dr. N. M. Wagarachchi, University of Ruhuna

Session Co-Chair: Mr. N.M. Ziyad, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P1.01	45	11.15 am - 11.35 am	Email-Based Human-Agent Communication for Automated Classroom Reservation Using Multi Agent Systems ¹ P. Madhubhani, ² B.Hettige ¹ Department of Computer Engineering, Faculty of Computing, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka. ² Department of Knowledge Engineering and Communication, Faculty of Computing, University of Sri Jayawardenepura
T1P1.02	47	11.35 am - 11.55 am	Evaluating the performance of an AI-powered chatbot in providing personal loan advisory services in Sri Lanka ¹ J. Dissanayake, ¹ K. Rathnayake, ¹ S. Jayasundara, ¹ G. D. Samarasinghe, ² H.A. Dimuthu Maduranga Arachchi, and ³ L.H.U.M. Fernando ¹ Department of Industrial Management University of Moratuwa Moratuwa, Sri Lanka ² Individual Researcher Colombo, Sri Lanka ³ Department of Decision Sciences University of Moratuwa Moratuwa, Sri Lanka
T1P1.03	130	11.55 am - 12.15 pm	VizGen: Data Exploration and Visualization from Natural Language via a Multi-Agent AI Architecture ¹ S. Fernando, ¹ I. Jayarathne, ¹ S. Abeysekara, ¹ S. Sithamparanthan, ¹ T. Silva, and ² D. Jayawardana ¹ Department of Computational Mathematics University of Moratuwa Moratuwa, Sri Lanka ² Mitra AI Moratuwa, Sri Lanka
T1P1.04	143	12.15 pm - 12.35 pm	GoalCoin: AI-Driven Personal Budget Manager ¹ S.M.D.Kumarasekara, ¹ W.T.N.G.Wimalaratna, ¹ S.D. Gajanayake, ¹ D.S.Jayalath, ² Y.M.C.N. Bimsara, ² I.T.S. Piyatilake ¹ Dept. of Computational Mathematics University of Moratuwa Sri Lanka ² Rootcode Colombo, Sri Lanka
T1P1.05	162	12.35 pm - 12.55 pm	Fostering Musical Partnership: A Human-Centric Robotic Co-Player for Accessible and Adaptive Piano Learning ¹ PVD Uththara, ² B Hettige, ¹ MAST Goonathilake, and ¹ MAPP Dayaratne ¹ Department of Computer Engineering Faculty of Computing, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka ² Department of Knowledge Engineering and Communication, Faculty of Computing, University of Sri Jayawardenepura, Sri Lanka

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Technical Session 1: Parallel Session 2: Morning Session (T1P2)

Location: Board Room, Faculty of Engineering Technology

Time: 11.15 am to 1.30 pm

Session Chair: Prof. TGI Fernando, University of Sri Jayawardenapura

Session Co-Chair: Dr. WMKS Ilmini, University of Sri Jayawardenapura

Session Co-Chair: Mrs. M. Kelanibandara, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P2.01	55	11.15 am - 11.35 am	PCOS Detection in Ultrasound Images Using Transfer Learning and Data Augmentation: An Explainable AI Approach with Grad-CAM ¹ H.M.L.S. Kumari and ² C.K. Walgampaya ¹ Computer Center, Faculty of Engineering, University of Peradeniya Sri Lanka ² Department of Engineering Mathematics, Faculty of Engineering, University of Peradeniya Sri Lanka
T1P2.02	60	11.35 am - 11.55 am	Brightness-Enhanced Gastrointestinal Endoscopy Image Classification Using CNN-Based Diagnostic Model ¹ NM Abeysinghe and ² HKIS Lakmal ¹ Department of Electrical, Electronic and Systems Engineering NSBM Green University, Sri Lanka ² Department of Mechatronics and Industrial Engineering NSBM Green University, Sri Lanka
T1P2.03	61	11.55 am - 12.15 pm	Few-shot Learning Model to identify Congenital Diaphragmatic Hernia ¹ C. N. Bandaranayake and ¹ H. K. I. S. Lakmal ¹ Center of Advanced Vision and Intelligent Networks, Faculty of Engineering, NSBM Green University, Homagama, Sri Lanka
T1P2.04	108	12.15 pm - 12.35 pm	Model-Efficient Pneumonia Classification from Chest X-Ray Images with Limited Data ¹ M. M. V. Senanayake, ¹ B. M. T. Kumarika, ² P. P. M. Jayaweera, ³ K. C. D. Mettananda, and ⁴ S. R. D. Kalingamudali ¹ Department of Statistics and Computer Science University of Kelaniya ² Department of Information Systems Engineering and Informatics University of Sri Jayewardenepura ³ Department of Pharmacology University of Kelaniya ⁴ Department of Physics and Electronics University of Kelaniya
T1P2.05	184	12.35 pm - 12.55 pm	LLM and Knowledge Graph Based Framework for Dynamic Prerequisite Knowledge Identification in Foundational Mathematics ¹ K.M.G.M.B. Alahakoon and ¹ D.D.M. Ranasinghe ¹ Department of Electrical and Computer Engineering Faculty of Engineering Technology The Open University of Sri Lanka Nawala, Nugegoda, Sri Lanka

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Technical Session 1: Parallel Session 3: Morning Session (T1P3)

Location: Library

Time: 11.15 am to 1.30 pm

Session Chair: Prof. ATP Silva , University of Moratuwa

Session Co-Chair: Dr. N Mekala , University of Kelaniya

Session Co-Chair: Ms S Rajasinhham, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P3.01	59	11.15 am - 11.35 am	ResQConnect: Agentic AI for Human-Centered Disaster Response Systems ¹ A. Aththanayake, ¹ C. Mallikarachchi, ¹ S Kugarajah and ¹ A Wickramasingh ¹ Department of Computer Science and Engineering University of Moratuwa, Sri Lanka
T1P3.02	77	11.35 pm – 11.55 pm	KYC Automation using Layout Aware Extraction and Retrieval-Augmented Generation with LLMs ¹ B. Walia and ² Banani Mohapatra ¹ Amazon, New York City, USA ² Walmart, Santa Clara, USA
T1P3.03	58	11.55 am - 12.15 pm	Multi-Task Learning Framework for Brain Tumor Segmentation and Classification ¹ Z. Zaman, ¹ A. T. Chowdhury, ¹ T. N. Tanmoy, ¹ N. Ahmed, and ¹ A. I. Mridha ¹ Department of Electrical and Electronic Engineering Islamic University of Technology Dhaka, Bangladesh
T1P3.04	26	12.15 pm - 12.35 pm	A Comparative Study of AI-Driven Regression Testing Techniques of Integrated Circuit Design ¹ A. Ravikumar, ² X. Yang, ² R. Prasad, ¹ A. Rast, and ¹ A. Jabir ¹ School of ECM, Oxford Brookes University, Oxford, UK ² Infineon Technologies, Bristol, U.K. Ltd
T1P3.05	68	12.35 pm - 12.55 pm	Analyzing Geopolitical Stability: Using GNN to Predict Military Alliances Based on Military Capability, Resource Distribution, and Geographical Adjacency ^{1,3} O K. Herath, ¹ T.E.H Abeywickrama, ² P. R. Arachchilage, ¹ U E Senadheera ¹ Department of Science of Technology Innovation, Nagaoka University of Technology, Japan ² Department of Civil and Environmental Engineering, University of Missouri, Columbia, United States ³ Department of Transport Management and Logistics Engineering, Faculty of Engineering, University of Moratuwa, Sri Lanka
T1P3.06	155	12.55 pm - 01.15 pm	A Lightweight Deep Learning Model for Skin Cancer Detection using GAN and Knowledge Distillation ¹ T. Islam, ¹ S. Kabir, ¹ Al-Hasib Fahim, and ¹ Quazi Nafees-Ul-Islam ¹ Department of Electrical and Electronic Engineering Islamic University of Technology Dhaka, Bangladesh

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Technical Session 1: Parallel Session 4: Morning Session (T1P4)

Location: Seminar Room, Electrical and Computer Engineering Research Lab

Time: 11.15 am to 1.30 pm

Session Chair: Prof. Sidath Liyanage, University of Kelaniya

Session Co-Chair: Dr. Surani Tissera, University of Sri jayawardenepura

Session Co-Chair: Dr. J. Padmini, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P4.01	48	11.15 am - 11.35 am	AI-Driven Real-Time Traffic Prediction in 5G Networks ¹ KDHI Udayawickrama and ² HKIS Lakmal ¹ Department of Electrical, Electronic and System Engineering NSBM Green University, Sri Lanka ² Department of Mechatronics and Industrial Engineering, NSBM Green University, Sri Lanka
T1P4.02	94	11.35 am - 11.55 am	N-BEATS for ENSO Forecasting: A Comparative Benchmark Against LSTM ¹ W.M.D.R. Bandara, ¹ D.D.A. Arthanayake, and ² M.W.P. Maduranga ¹ Department of Data Science National Institute of Business Management Colombo, Sri Lanka ² Department of Electrical and Electronics Engineering University of Sri Jayawardenepura Nugegoda, Sri Lanka
T1P4.03	101	11.55 am - 12.15 pm	Law Strategy Prediction System for Motor Traffic Accidents Based on the Legal Framework of Sri Lanka Using Image Processing and Machine Learning Techniques ¹ S.A. Weerasinghe and ¹ B.M.T. Kumarika ¹ Department of Statistics and Computer Science Faculty of Science, University of Kelaniya Kelaniya, Sri Lanka
T1P4.04	113	12.15 pm - 12.35 pm	A Proposed Interpretable Deep Learning Framework for Mutation-Induced Protein Mislocalization ¹ I. Kumaranayake and ¹ D. Alwis ¹ School of Computing Informatics Institute of Technology Colombo, Sri Lanka
T1P4.05	117	12.35 pm - 12.55 pm	Deep Learning-Based Sinhala Sign Language Recognition: A Preliminary Framework for Deaf Communication in Sri Lanka ¹ HMRV Herath, ¹ DU Vidanagama ¹ Department of Computational Mathematics General Sir John Kotelawala Defence University Ratmalana, Sri Lanka

Contact: Dr. Surani (+94742916161), Dr. Budditha (+9476622982)

Technical Session 1: Parallel Session 5: Morning Session (T1P5)**Location:** Board Room, Faculty of Natural Sciences**Time:** 11.15 am to 1.30 pm**Session Chair:** Prof. Prasad M. Jayaweera, University of Sri Jayewardenepura**Session Co-Chair:** Dr. MKA Ariyaratne, University of Sri Jayewardenepura**Session Co-Chair:** Ms. Hirusha Wanigasingha, University of Sri Jayewardenepura

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P5.01	32	11.15 am - 11.35 am	Fine-Tuning Vision Transformers for Real-Time Pest Classification in Urban Environments ¹ C.N. Hettiarachchi, ² R.G.N. Meegama ¹ Department of Physical Sciences and Technology Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka, Sri Lanka ² Department of Computer Science Faculty of Applied Sciences University of Sri Jayewardenepura, Nugegoda, Sri Lanka
T1P5.02	42	11.35 am - 11.55 am	A Visible Light Positioning System for Indoor Localization and Orientation Tracking ¹ H.K.I.S. Lakmal, ¹ S.K. Amarasinghe and ¹ K.J.P. Fernando ¹ Department of Mechatronic and Industrial Engineering NSBM Green University, Homagama, Sri Lanka
T1P5.03	182	11.55 pm - 12.15 pm	Machine Learning Models for Optimal Sea Cucumber Cultivation Sites in Sri Lanka ¹ R.P.G.B.M. Rajapaksha, ¹ L.S.K. Udugama, ¹ G.S.N. Meedin and ² G. Nishanthan ¹ Department of Electrical and Computer Engineering, The Open University of Sri Lanka Nawala, Nugegoda, Sri Lanka ² Department of Aquaculture and Fisheries Wayamba University of Sri Lanka Kuliypitiya, Sri Lanka
T1P2.04	121	12.15 pm - 12.35 pm	Image-Based Autism Spectrum Disorder and Deep Learning: A Review Paper ¹ H.A.D.M. Arachchi, ² H.P.D. P. Pathirana, and ³ G.D.Samarasinghe ¹ Individual Researcher Colombo, Sri Lanka ² Department of Computer Science Uva Wellassa University, Badulla ³ Department of Industrial Management, University of Moratuwa Moratuwa, Sri Lanka
T1P2.05	8	12.35 pm - 12.55 pm	Development of a Wearable Sensor System for Injury Risk Prediction in the Front Leg Action of Fast Bowlers Using Machine Learning ¹ R.A.B.D. Ranasinghe, ² H.K.I.S. Lakmal and ² W.C.Nirmal ¹ Department of Electrical, Electronic and Systems Engineering NSBM Green University, Sri Lanka ² Department of Mechatronic and Industrial Engineering NSBM Green University, Sri Lanka

Contact: Dr. Anuradha (+94772264300), Dr. Buddhitha (+9476622982)

Technical Session 1: Parallel Session 6: Morning Session (T1P6)**Location:** Seminar Room, Faculty of Natural Sciences**Time:** 11.15 am to 1.30 pm**Session Chair:** Snr. Prof. RGN Meegama, University of Sri Jayewardenepura**Session Co-Chair:** Dr. Umada Dikwatta, University of Sri Jayewardenepura**Session Co-Chair:** Ms. Pamoda Rathnayake, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P6.01	79	11.15 am - 11.35 am	A Review on Sinhala Sign Language Interfaces for Large Language Model Interaction ¹ G.G. Maleesha, ¹ P. I. U Peiris, ¹ K.D.S. Oshadha, ¹ K.A.M.P.Kumarapeli, ¹ S.M.K.Santhush, and ¹ N.M. Siyad ¹ Department of Electrical and Computer Engineering, The Open University of Sri Lanka, Nawala, Nugegoda
T1P6.02	100	11.35 am - 11.55 am	smartCommit: an AI-Powered Commit Message Solution ¹ S.K. Epasinghe, ¹ K.P.A.N. Gunarathne, ¹ D.M.R.K. Priyadarshana, ¹ H.W.T.P. Pasandul, ¹ A.S. Karunananda and ² A.M.A.M. Adhikari ¹ Department of Computational Mathematics, University of Moratuwa, Sri Lanka ² 99x, Colombo, Sri Lanka
T1P6.03	115	11.55 am - 12.15 pm	Enhancing SQL Query Learning using Chatbot with NLP: A Methodical Review ¹ B. Nayanakantha, ¹ MAPP Dayarathne and ¹ RLW Koggalage ¹ Department of Computer Engineering, Faculty of Computing General Sir John Kotelawala Defence University, Sri Lanka
T1P6.04	125	12.15 pm - 12.35 pm	A Novel Rule-Based Knowledge Representation Model for Machine Translation ^{1,3} M.A.S.T. Goonatilleke, ² B Hettige, ³ A.M.R.R. Bandara ¹ Faculty of Computing, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka ² Faculty of Computing, University of Sri Jayewardenepura, Nugegoda, Sri Lanka ³ Faculty of Applied Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka
T1P6.05	145	12.35 pm - 12.55 pm	Multitype and Multi-Horizon Intermittent Forecasting for Bank Transactions Using TFT and N-BEATS with Explainability, Uncertainty, and Category Relation Handling ¹ N Siriwardhana, ¹ S Fernando, ¹ C Thilakarathna, ¹ I Didulantha, ¹ A S. Karunananda, and ² U Matara Arachchi ¹ Department of Computational Mathematics University of Moratuwa, Sri Lanka ² Zone24x7, Colombo, Sri Lanka

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Technical Session 1: Parallel Session 7: Morning Session (T1P7)**Location:** Auditorium, Faculty of Health Sciences**Time:** 11.15 am to 1.30 pm**Session Chair:** Dr. Deepika Senewirathna, University of Sri Jayewardenepura**Session Co-Chair:** Dr. Waruna Premachandra, BCI Campus, Negambo**Session Co-Chair:** Ms H Pasqual, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T1P7.01	102	11.15 am - 11.35 am	An Agentic-AI Solution for Intelligent Code Review ¹ T.M.N. Nimraka, ¹ M.T. Prabhashana, ¹ R. Prainila, ¹ L.L. Randinu, ¹ A.S. Karunananda, and ² A.M.A.M Adhikari ¹ Dept. of Computational Mathematics, University of Moratuwa Moratuwa, Sri Lanka ² 99x, Colombo, Sri Lanka
T1P7.02	09	11.35 am - 11.55 pm	A Comprehensive Review on Security-Enhanced User Experience Model for E-learning systems ¹ P. Udugahapattuwa and ² S. Fernando ¹ Department of Electrical, Electronic and Telecommunication, Faculty of Engineering, General Sir Kotelawala Defence University, Ratmalana, Sri Lanka ² Department of Computer Science and Engineering, Faculty of Engineering, University of Moratuwa, Moratuwa, Sri Lanka
T1P7.03	132	11.55 pm - 12.15 pm	Influence of Individual Image on Team Dynamics in IT-Related Undergraduate Projects: Investigating the Hue Effect ¹ B.M.G.S.T.S.K. Wickramasinghe, ¹ K.D.B. Aratthanage, ¹ W.A.L.P. Fernando, ¹ N.G.P.R. Premachandra, ¹ J. Kirushika, and ² T.D.T. Madhushika ¹ Department of Electrical and Computer Engineering, The Open University of Sri Lanka, Nawala, Nugegoda, Sri Lanka ² Department of Mathematics and Philosophy of Engineering, The Open University of Sri Lanka, Nawala, Nugegoda, Sri Lanka
T1P7.04	172	12.15 pm - 12.35 pm	Ontology-based personalized fruit recommendation with fruit recognition & ripeness analysis to promote fruit consumption in Sri Lanka ¹ WMLR Ekanayake, and ¹ DU Vidanagama ¹ Department of Information Technology, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka
T1P7.05	147	12.35 pm - 12.55 pm	Computer Vision Based Approach to Work Force Tracking for Safety Compliance Monitoring ¹ K. T. A. R. Hansamal, ¹ S. Shaarukshan, ¹ S. K. Sakinu, ¹ K. Abinan, ² U. Matara Arachchi, ¹ I. T. S. Piyatilake ¹ Department of Computational Mathematics, University of Moratuwa, Sri Lanka ² Zone24x7 (Private) Limited, Sri Lanka

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Technical Session 2: Parallel Session 1: Evening Session (T2P1)**Location:** Board Room, Faculty of Health Sciences**Time:** 02.30 pm to 04.30 pm**Session Chair:** Prof. Koliya Pulasinghe, Institute of Information Technology**Session Co-Chair:** Dr. Gehan Anthonys , The Open University of Sri Lanka**Session Co-Chair:** Mr. N Wanigasooriya , The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P1.01	41	2.30 pm – 2.50 pm	Tendon-Driven Robotic Screwdriver for Component Fastening in Wind Box Assemblies ¹ H.K.I.S.Lakmal, ¹ W.D.Navodya and ¹ W.C.Nirmal ¹ Department of Mechatronic and Industrial Engineering, NSBM Green University, Homagama, Sri Lanka
T2P1.02	73	2.50 pm – 3.10 pm	Supervised Learning for Control Input Prediction in Nonlinear Pendulum Systems: A Data-Driven Alternative to Classical Control ¹ W.C.Nirmal, ² M.W.P.Maduranga, ¹ H.K.I.S.Lakmal, ³ P.N.M.Kumara and ¹ S.L.Kulatunga ¹ Department of Mechatronic and Industrial Engineering Faculty of Engineering, NSBM Green University, Homagama, Sri Lanka ² Center for Next Generation Communication Systems Faculty of Engineering, University of Sri Jayawardenepura, Mattegoda, Sri Lanka ³ Department of Electrical and Electronic Engineering, Faculty of Engineering University of Sri Jayawardenepura Mattegoda, Sri Lanka
T2P1.03	43	3.10 pm – 3.30 pm	Enhancing Efficiency through Advanced Cloud and Solar Tracking in Solar Photovoltaics ¹ P.K.L.N.Perera and ¹ H.K.I.S. Lakmal, ¹ W.C. Nirmal and ² W.S. Kaveesha ¹ Dept. of Mechatronic and Industrial Engineering NSBM Green University, Homagama, Sri Lanka ² Dept. of Electrical, Electronic and Systems Engineering NSBM Green University Homagama, Sri Lanka
T2P1.04	127	3.30 pm – 3.50 pm	A Federated Graph Neural Network Approach for Intrusion Detection in 5G Networks ¹ MWP Maduranga, ¹ D. Nandan, ² B.V.K.I. Vidanage, ³ S. Neththikumara, ⁴ DMR Kulasekara and ⁵ N.M. Narasinghe ¹ School of CS and AI, SR University, Warangal, Telangana 506371, India ² Department of Computer Science, General Sir John Kotelawala Defence University Sri Lanka ³ School of Information and Communication Technology, Nāgānanda International Institute for Buddhist Studies (NIIBS), Sri Lanka ⁴ Department of Computer Engineering, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka ⁵ College of Engineering and Mines , University of North Dakota, Grand Forks, USA
T2P1.05	167	03.50 pm – 4.10 pm	Adaptive Learning through Moodle: Empowering Personalized Education ¹ I.A.N. Madhushani, ² S.R. Liyanage and ² S.P. Kasthuri Arachchi ¹ Equals Amsterdam, Raamgracht, Amsterdam, Netherlands ² Faculty of Computing and Technology, University of Kelaniya, Kelaniya, Sri Lanka

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Technical Session 2: Parallel Session 2: Evening Session (T2P2)**Location:** Board Room, Faculty of Engineering Technology**Time:** 02.30 pm to 04.30 pm**Session Chair:** Prof. Kapila Rathnayake, Sabaragamuwa University of Sri Lanka**Session Co-Chair:** Ms. Mihiri Sirisuriya, Gen. Sir John Kotelawala Defence University**Session Co-Chair:** Mr. S. Wikramasinghe, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P2.01	133	2.30 pm – 2.50 pm	A Comparative Study on Nature-Inspired Algorithms Finding Optimal Policies in Reinforcement Learning ¹ ADH Dasunika, ¹ N. H. Wanigasingha, ² Upeksha Samarasinghe, ¹ MKA Ariyaratne ¹ Department of Computer Science, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka ² Department of IT, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, Sri Lanka
T2P2.02	85	2.50 pm – 3.10 pm	Seeing Beyond the Surface: A Transformer-Based Approach to Early Skin Cancer Detection ¹ R. D. Gunaratne, and ¹ H. K. I. S. Lakmal ¹ Center of Advanced Vision and Intelligent Networks, Faculty of Engineering, NSBM Green University, Homagama, Sri Lanka
T2P2.03	70	3.10 pm – 3.30 pm	Multimodal Deep Learning for Alzheimer's Diagnosis Using PET and MRI: A Flexible Fusion Approach ¹ Z. S. Jayman and ¹ H. K. I. S. Lakmal ¹ Center of Advanced Vision and Intelligent Networks, Faculty of Engineering, NSBM Green University, Homagama, Sri Lanka
T2P2.04	146	3.30 pm – 3.50 pm	RetXplainer: Explainable, Agent-based Vision Transformer Framework for Multi-label Retinal Disease Classification ¹ S N. J. Amalage, and ¹ A.L.A.R.R Thanuja ¹ Department of Computational Mathematics University of Moratuwa, Moratuwa, Sri Lanka
T2P2.05	52	3.50 pm – 4.10 pm	Bias-Aware Method for Combining Audio and Video Data in Personality Assessment AI Models ¹ M.P.Kandage and ² H.K.I.S.Lakmal ¹ Department of Electrical, Electronic and Systems Engineering, NSBM Green University, Sri Lanka ² Department of Mechatronic and Industrial Engineering, NSBM Green University, Sri Lanka
T2P2.06	81	4.10 pm – 4.30 pm	A Novel Approach to Explainable AI with Quantized Active Ingredients in Decision Making ¹ A.M.A.S.D. Alagiyawanna, ¹ A.S. Karunananda, ¹ T.P. Silva and ² A. Mahasinghe ¹ Department of Computational Mathematics, University of Moratuwa, Sri Lanka ² Department of Mathematics University of Colombo Sri Lanka

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Technical Session 2: Parallel Session 3: Evening Session (T2P3)**Location:** Library**Time:** 02.30 pm to 04.30 pm**Session Chair:** Dr. Menaka Ranasingha, The Open University of Sri Lanka**Session Co-Chair:** Ms. Dr. W.A.C Weerakoon, University of Kelaniya**Session Co-Chair:** Ms. Iresha Ariyasinghe, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P3.01	63	2.30 pm - 2.50 pm	Advances in Bird Bioacoustics Using Deep Learning: A Comprehensive Review of Vocal Mechanisms, Acoustic Communication, and Conservation Application ^{1,2} P. Pallewatta, ² S. Mathara Arachchi, ² K. Karunanayaka, ¹ T Kayuni, ¹ T Aleksandr, and ³ T Halloluwa ¹ Nanjing University of Information Science and Technology, Nanjing, China ² University of Colombo School of Computing, Sri Lanka ³ School of Electrical Engineering and Computer Science, The University of Queensland
T2P3.02	118	2.50 pm – 3.10 pm	AI-powered Chatbot for Retail E-commerce using Machine Learning & Natural Language Processing ¹ K. Govardhanan ¹ Boston University, 233 Bay State Road, Boston, MA 02215, USA
T2P3.03	124	3.10 pm – 3.30 pm	Immersive Financial Data Visualization Using Augmented Reality Smart Glasses: A Framework for Real-time Investment Decision Support ¹ Sathiskumar Meganathan ¹ U.S. Bank
T2P3.04	49	3.30 pm – 3.50 pm	LLM-Augmented Multimodal Fusion for Accurate and Real-Time Wearable Event Prediction ¹ T. Shukla and ² A. Gupta ¹ Department of Biomedical Data Science Dartmouth College Hanover, USA ² Department of Quantitative Biomedical Science Geisel School of Medicine at Dartmouth College Hanover, USA
T2P3.05	119	3.50 pm – 4.10 pm	Conversational Learn to Rank: Personalizing Multi Turn Shopping Dialogs with Contextual Relevance Signals ¹ K. Govardhanan ¹ Boston University, 233 Bay State Road, Boston, MA 02215, USA
T2P3.06	123	4.10 pm – 4.30 pm	Improving Due Process Recognition in Low Parameter Models ¹ J. P. Johnson and ¹ A. P. Lauf ¹ Department of Computer Science and Engineering, University of Louisville, Louisville, KY US
T2P3.07	76	4.30 pm – 4.50 pm	Lightweight Voice Biometrics Authentication for Telecom ¹ Thesavin Kanagar, ¹ Kok Wai Wong, and ¹ Anupiya Nugaliyadde ¹ School of Information Technology, Murdoch University Perth, Australia

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Technical Session 2: Parallel Session 4: Evening Session (T2P4)**Location:** Seminar Room, Electrical and Computer Engineering Research Lab**Time:** 02.30 pm to 04.30 pm**Session Chair:** Dr. M.P. Madurapperuma, The Open University of Sri Lanka**Session Co-Chair:** Dr D.U. Vidanagama, General Sir John Kotelawala Defense University**Session Chair:** Dr. HMM Caldera, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P4.01	02	2.30 pm – 2.50 pm	A comparative study on Deep Learning models for Assessing Soil Structure ¹ W. S. V. Lakshan and ¹ K. D. V. C. Katugampala ¹ University of Kelaniya, Kelaniya, Sri Lanka
T2P4.02	69	2.50 pm – 3.10 pm	Low-Light and Adverse Weather Image Enhancement Using AI ¹ MDAJ Mallawarachchi, and ¹ H. K. I. S. Lakmal ¹ Center of Advanced Vision and Intelligent Networks, Faculty of Engineering, NSBM Green University, Homagama, Sri Lanka
T2P4.03	78	3.10 pm – 3.30 pm	A Flash-Attention-Optimized CNN Transformer Framework for Real-Time Video Restoration ¹ Y. Abhishek ¹ School of Computing, Informatics Institute of Technology, Colombo 006, Sri Lanka
T2P4.04	120	3.30 pm – 3.50 pm	TL-NBEATS: An Interpretable Transfer Learning Framework for Forecasting Sri Lankan Tourist Arrivals Under Structural Breaks ¹ W.W.M.S. Fernando, ¹ D.D.A. Arthanayake, and ² M.W.P. Maduranga ¹ Department of Data Science, National Institute of Business Management Colombo, Sri Lanka ² Department of Electrical and Electronic Engineering, University of Sri Jayawardenepura, Nugegoda, Sri Lanka
T2P4.05	150	3.50 pm – 4.10 pm	Forest Cover Classification with Explainable AI: A Comparative Analysis ¹ A.M.C. Malkanthi, ² R.M.K.T. Rathnayaka, ³ B.T.G.S. Kumara, and ⁴ D.R. Welikanna ¹ Faculty of Graduate Studies Sabaragamuwa University of Sri Lanka Sri Lanka ² Department of Physical Sciences and Technology Sabaragamuwa University of Sri Lanka Sri Lanka ³ Department of Data Science Sabaragamuwa University of Sri Lanka Sri Lanka ⁴ Department of Surveying and Geodesy Sabaragamuwa University of Sri Lanka Sri Lanka
T2P4.06	103	4.10 am - 4.30 pm	EdQuad: AI-Powered Education Information Management and Decision Support System ¹ P.S.R. Fernando, ¹ K.M.T.N.B. Kulasekara, ¹ W.K.T.P. Kularathna, ¹ D.P.S.S. Peiris, ¹ T. Silva, and ² U. Matara Arachchi ¹ Dept. of Computational Mathematics University of Moratuwa Sri Lanka ² Zone24x7 (Private) Limited, Koswatte, Sri Lanka

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Technical Session 2: Parallel Session 5: Evening Session (T2P5)**Location:** Board Room, Faculty of Natural Sciences**Time:** 02.30 pm to 04.30 pm**Session Chair:** Dr. Sanika Wijesekara, Sri Lanka Technology Campus**Session Co-Chair:** Ms. Upeksha Samarasinghe, University of Sri Jayawardenepura**Session Co-Chair:** Mr. W L Fernando, The Open University of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P5.01	84	2.30 pm – 2.50 pm	Enhancing Fashion-MNIST classification accuracy: A study of regularized least squares and kernel-based approaches ¹ A. W. B. M. Perera, ¹ M. H. S. Premasiri, ¹ P.M. Edirisinghe and ² W.A.M. Fernando ¹ Department of Mathematics University of Moratuwa, Sri Lanka ² Department of Nanoscience Technology, Wayamba University, Sri Lanka
T2P5.02	90	2.50 pm – 3.10 pm	Intelligent Indoor Sensing Using Machine Learning and Reconfigurable Surfaces: An OMNeT++ Simulation Approach ¹ A.K. Saraph, ¹ W.D.S.S. Bandara and ² U Oruthota ¹ Department of Electrical and Computer Engineering, Faculty of Engineering Technology The Open University of Sri Lanka ² Department of Electrical and Computer Engineering, Faculty of Engineering Sri Lanka Technology Campus
T2P5.03	157	3.10 pm – 3.30 pm	A Hybrid Rule-Based and Machine Learning Framework for Real-Time Driver Performance Assessment ¹ B.M.S.U.Nawarathna, ¹ R.J. Wimalasiri, and ² N.C.Wanigasuriya ¹ Department of Electrical and Computer Engineering The Open University of Sri Lanka, Sri Lanka Colombo, Sri Lanka ² Department of Mechanical Engineering The Open University of Sri Lanka, Sri Lanka Colombo, Sri Lanka
T2P5.04	181	3.30 pm – 3.50 pm	A Dropout-Regularized LSTM Framework for High-Accuracy Traffic Prediction in Elastic Optical Networks ¹ K. Munasinghe, ² N. Dharmaweera, ² U. Wijewardhana, ³ C. De Alwis, and ⁴ R. Parthiban ¹ Department of Telecommunications Engineering Sri Lanka Technology Campus Padukka, Sri Lanka ² Department of Electrical and Electronic Engineering University of Sri Jayawardenapura Maththegoda, Sri Lanka ³ School of Computer Science and Technology University of Bedfordshire, United Kingdom ⁴ Department of Electrical and Computer Systems Engineering Monash University Australia
T2P5.05	189	3.50 pm – 4.10 pm	Design and Optimization of an EFI Conversion Kit for Enhanced Fuel Efficiency and Cost-Effective CDI in Single-Piston Gasoline Engines ¹ N. Bandara, ¹ N. Chinthaka, ¹ I. Maduwantha, ¹ R. Gamage and ¹ R. Kalubowila ¹ Department of Instrumentation and Automation Technology Faculty of Technology, University of Colombo, Colombo, Sri Lanka

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Technical Session 2: Parallel Session 6: Evening Session (T2P6)**Location:** Seminar Room, Faculty of Natural Sciences**Time:** 02.30 pm to 04.30 pm**Session Chair:** Prof. Ravindra Koggalage, UNIVOTEC**Session Co-Chair:** : Dr. Suresha Perera , The Open University of Sri Lanka**Session Co-Chair:** Ms. MMV Sennanayake, University of Sri Jayewardenepura

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P6.01	65	2.30 pm – 2.50 pm	Large Language Model-based Multimodal Knowledge Distillation: A Review of Methodologies and Applications ¹ U.B.P. Shamika, ² D.M.K.N. Seneviratna, ³ B.T.G.S. Kumara and ⁴ R.M.K.T. Rathnayaka ¹ Faculty of Graduate Studies Sabaragamuwa University of Sri Lanka Belihuloya, Sri Lanka ² Department of Interdisciplinary Studies University of Ruhuna Galle, Sri Lanka ³ Department of Software Engineering Sabaragamuwa University of Sri Lanka Belihuloya, Sri Lanka ⁴ Department of Physical Sciences and Technology Sabaragamuwa University of Sri Lanka Belihuloya, Sri Lanka
T2P6.02	96	2.50 pm – 3.10 pm	Ontology-Based Knowledge Representation for Recommending Dietary Guidelines to Non Alcoholic Fatty Liver Disease Patients ¹ A.A Abeysekara, ¹ GAI Uwanthika, ² WMKS Ilmini and ³ GRNN Waidyarathna ¹ Faculty Of Computing, General Sir John Kotelawala Defence University, Colombo, Sri Lanka ² Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka ³ Faculty Of Medicine, General Sir John Kotelawala Defence University, Colombo, Sri Lanka
T2P6.03	98	3.10 pm – 3.30 pm	Beyond Black Boxes: An Ontology Based Vision Framework for Transparent Fruit Disease Detection ¹ MJ Marapperuma and ² BVKI Vidanage ¹ Department of Computer Engineering, General Sir John Kotelawala Defence University, Colombo, Sri Lanka ² Department of Computer Science, General Sir John Kotelawala Defence University, Colombo, Sri Lanka
T2P6.04	158	3.30 pm – 3.50 pm	InPRAWeb in Action ¹ A S. Karunananda, ¹ TAP Silva ² D Handapangoda, ² S Sumanapala and ³ L Ariyasinghe ¹ Faculty of Information Technology, University of Moratuwa ² Syigen Pvt Ltd ³ Mobitel (Pvt) Ltd
T2P6.05	180	3.50 pm – 4.10 pm	Task-Specific Knowledge Distillation for Accurate and Efficient Text Summarization ¹ B. Gobihanath, ¹ V Abishethvarman, ² S Prasanth and ¹ B. T. G. S. Kumara ¹ Faculty of Computing, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka ² Faculty of Science and Engineering, Memorial University of Newfoundland, St. John's, Canada

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Technical Session 2: Parallel Session 7: Evening Session (T2P7)**Location:** Auditorium, Faculty of Health Sciences**Time:** 02.30 pm to 04.30 pm**Session Chair:** Dr Ravimal Bandara, University of Sri jayewardenepura**Session Co-Chair:** Dr Pasan Maduranga, University of Sri jayewardenepura**Session Co-Chair:** Ms K Jeyaraj, The Open university of Sri Lanka

Session ID	Paper ID	Time (SL Time)	Paper Title and Authors
T2P7.01	176	2.30 pm – 2.50 pm	Enhancing The Security and Asset Tracking of Collateral Articles Using Blockchain and IOT Technologies ¹ S.W.S.Hashendra, ¹ D.D.M.Ranasinghe and ¹ N.C.Wanigasooriya ¹ Department of Electrical and Computer Engineering, The Open University of Sri Lanka Nawala, Nugegoda Sri Lanka
T2P7.02	166	2.50 pm – 3.10 pm	A hybrid quantum-inspired prototype for solving nonlinear continuous optimization problems ¹ N. Suharshani, ² A. Nimuthumana, ² G. Prabhath, ² A. Mahasinghe, ¹ K De Zoysa, ² N Ranasinghe and ² A. Sayakkara ¹ Department of Mathematics, University of Colombo, Colombo 03, Sri Lanka ² University of Colombo School of Computing, Colombo 07, Sri Lanka
T2P7.03	128	3.10 pm – 3.30 pm	Powering Sustainable Smart Bulbs via Piezoelectric Energy Harvesting from Industrial Noise and Vibrations with Optimised Effective Energy Conversion ¹ W. M. P.M. Bandara, ² C. J. Basnayakege, and ¹ M. I. Sudasinghe ¹ Department of Environmental Technology, Faculty of Technology University of Colombo Colombo, Sri Lanka ² Department of Electrical and Computer Engineering, Faculty of Engineering The Open University of Sri Lanka Colombo, Sri Lanka
T2P7.04	66	3.30 pm – 3.50 pm	A Neural Speech Codec with Timbre Preservation at Low Bitrates ¹ H.K.I.S. Lakmal, ¹ R.M.T.D.B. Rajakaruna, and ² K.J.P. Fernando ¹ Department of Mechatronic and Industrial Engineering NSBM Green University Homagama, Sri Lanka ² Department of Electrical, Electronics and Systems Engineering, NSBM Green University Homagama, Sri Lanka
T2P7.05	168	3.50 pm - 4.10 pm	Hybrid Neural Network and Neuro-Fuzzy Model for Early Detection of Alzheimer's and Parkinson's Diseases Using EEG ¹ S. H. Kasthuriarchchi, ¹ H.U.W. Rathnayaka, ² A.K.A.B Baminawatt ¹ Department of Electrical and Computer Engineering, The Open University of Sri Lanka, Nugegoda, Sri Lanka ¹ Department of Psychiatry University of Kelaniya, Ragama, Sri Lanka
T2P7.06	30	4.10 am - 4.30 am	Enhancing Snake Species Identification in Sri Lanka Through Explainable Artificial Intelligence Techniques ¹ G. Ranawaka and ² TGI Fernando ¹ School of Computing, Informatics Institute of Technology, Sri Lanka ² Department of Computer Science, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

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- Dr. D.S. Deegalla, University of Peradeniya, Sri Lanka
- Dr. D.S.Kalana Mendis, Advanced Technological Institute, Sri Lanka
- Mr. D S S Bandara, The Open University of Sri Lanka, Sri Lanka
- Dr. I.T.S. Piyatilake, University of Moratuwa, Sri Lanka
- Dr. Nitin Choubey, Amaravati University, India
- Dr. Malinda Punchimudiyanse, The Open University of Sri Lanka
- Dr. MWP Maduranga, University of Sri Jayewardenepura, Sri Lanka
- Dr. Upeksha Ganegoda, University of Moratuwa, Sri Lanka
- Dr. Faiz Marikar, General Sir John Kotelawala Defence University, Sri Lanka
- Dr. Gehan Anthonys, The Open University of Sri Lanka
- Dr. M Caldera, The Open University of Sri Lanka
- Mr. H. A. Harindu Sarathchandra, Shibaura Inst. of Technology, Tokyo, Japan
- Dr. Harinda Fernando, SLIIT -Sri Lanka Institute of Information Technology, Sri Lanka

- Dr. Hasanthi Pathberiya, University of Sri Jayewardenepura, Sri Lanka
- Prof. Hemali Ratnayake, The Open University of Sri Lanka
- Dr. Himal Suraweera, University of Peradeniya, Sri Lanka
- Mr. HR Jayetilleke, University of Sri Jayewardenepura
- Prof. Indika Perera, University of Moratuwa, Sri Lanka
- Ms. Isuri Uwanthika, General Sir John Kotelawala Defence University, Sri Lanka
- Mr. Janaka Basnayake, The Open University of Sri Lanka
- Prof. Janaka Wijayanayake, University of Kelaniya, Sri Lanka
- Dr. Jayawan Wijekoon, University of Manchester, United Kingdom
- Dr. Joseph El Gemayel, University of Strathclyde, United Kingdom
- Associate Professor Kai Keng Ang, Nanyang Technological University, Singapore
- Dr. Kalana Patuwatha Withanage, Lockheed Martin, Australia
- Dr. Kalani Ilmini, University of Sri Jayewardenepura, Sri Lanka
- Dr. Kanchana Shiromalie Weerasinghe, Wayamba University of Sri Lanka, Sri Lanka
- Snr. Prof. A. S. Karunananda, University of Moratuwa, Sri Lanka
- Dr. Jeeva Ekanayake, The Open University of Sri Lanka
- Dr. Kutila Gunasekera, University of Moratuwa, Sri Lanka
- Dr. L.S.K. Udugama, The Open University of Sri Lanka
- Dr. Madusha Chandrasena, University of Kelaniya, Sri Lanka
- Dr. Manjusri Wickramasinghe, University of Colombo School of Computing, Sri Lanka
- Ms. Manohari Kelanibandara, The Open University of Sri Lanka, Sri Lanka
- Ms. Mihiri Sirisuriya, General Sir John Kotelawala Defence University, Sri Lanka
- Asst. Prof. Mohd Fairuz Shiratuddin, Murdoch University, Australia
- Ms. Iresha Ariyasinghe, The Open University of Sri Lanka, Sri Lanka
- Dr. Nadeera Meedin, The Open University of Sri Lanka, Sri Lanka
- Dr. Nalin Ranasinghe, University of Colombo School of Computing
- Prof. Nalin Wickramarachchi, University of Moratuwa, Sri Lanka
- Dr. Navodi Hakmanage, University of Kelaniya, Sri Lanka
- Dr. Nimalka Wagarachchi, University of Ruhuna, Sri Lanka
- Dr. Nipuna Senanayake, Informatics Institute of Technology, Sri Lanka

- Dr. Nuwan Weerasinghe, WHO Regional Office for Europe, United Kingdom
- Ms. Pavithra Madushanka, General Sir John Kotelawala Defence University, Sri Lanka
- Dr. Piumi Ishanka, Sabaragamuwa University of Sri Lanka, Sri Lanka
- Dr. Surani Shalika Tissera, University of Sri Jayewardenepura, Sri Lanka
- Dr. Pradeep Kalansooriya, General Sir John Kotelawala Defence University, Sri Lanka
- Dr. Prasanna Haddela, Sri Lanka Institute of Information Technology, Sri Lanka
- Prof. BTGS Kumara, University of Ruhuna, Sri Lanka
- Prof. Prasad Jayaweera, University of Sri Jayewardenepura, Sri Lanka
- Prof. R. G. N. Meegama, University of Sri Jayewardenepura, Sri Lanka
- Prof. R.M. Kapila Rathnayaka, Sabaragamuwa University of Sri Lanka, Sri Lanka
- Dr. Rasika Nandana, University of Wellington, New Zealand
- Dr. Ravimal Bandara, University of Sri Jayewardenepura, Sri Lanka
- Dr. Ravindra Koggalage, General Sir John Kotelawala Defence University, Sri Lanka
- Dr. Romesh Ruwan Thanuja, University of Moratuwa, Sri Lanka
- Dr. Rukshima Dabare, The Open University of Sri Lanka
- Dr. Ruwan Nawarathna, University of Peradeniya, Sri Lanka
- Mr. Sampath Wickramasinghe, The Open University of Sri Lanka, Sri Lanka
- Dr. Sandareka Wickramanayake, University of Moratuwa, Sri Lanka
- Dr. Sanika Wijayasekara, SLTC Research University, Sri Lanka
- Dr. Sanjaya Mishra, Commonwealth of Learning (COL), Canada
- Dr. Shantha Jayalal, University of Kelaniya, Sri Lanka
- Prof. Sidath Liyanage, University of Kelaniya, Sri Lanka
- Dr. Sirui Li, University of Murdoch, Australia
- Dr. Sujeewa Hettiwatte, CQUniversity Australia
- Dr. Suresha Perera, The Open University of Sri Lanka
- Mr. Susara Thenuwara, University of Tokyo, Japan
- Dr. Tharanga Rathnayaka, BCI Campus, Sri Lanka
- Dr. Thilina Thanthriwatta, University of Moratuwa, Sri Lanka
- Prof. Thushari Silva, University of Moratuwa, Sri Lanka
- Dr. Umada Dikwatta, University of Sri Jayewardenepura, Sri Lanka

- Mr. Varun Pandey JPMorganChase, USA
- Prof. Vasana Chandrasekara, University of Kelaniya, Sri Lanka
- Ms. Vasuki A SRM, Institute of Science and Technology, India
- Prof. V.P. Suresh, Indira Gandhi National Open University, India
- Dr. Waruna Premachandra, BCI Campus, Sri Lanka
- Ms. Wasana Uduwela, The Open University of Sri Lanka, Sri Lanka

SLAAI-ICAI-2024 Workshops

Operationalizing Generative AI at Scale

Date/Time: Nov. 19, 2025, 9:00 AM–12:00 PM

Conducted by: Mr. Ashan Priyadarshana

Technical Lead, Sysco Labs, Colombo, Sri Lanka

AI and Big Data in Education

Student Success through Learning Analytics

Date/Time: Nov. 21, 2025, 9:00 AM–12:00 PM

Conducted by: Dr. Sampath Deegalla

Senior Lecturer, Dept. of Computer Engineering, University of Peradeniya

The Future of AI Governance

Balancing Innovation and Regulations

Date/Time: Nov. 21, 2025, 1:00 PM–2:00 PM

Conducted by: Dr. (Ms) DDM Ranasinghe

Senior Lecturer, Dept. of Electrical & Computer Engineering, The Open University of Sri Lanka

Impact of Generative AI for Higher Education

Date/Time: Nov. 21, 2025, 2:30 PM–4:30 PM

Conducted by: Dr. Waruna Premachandra

Head – School of Computing, Benedict XVI Catholic International Institute of Higher Education (BCI Campus), Negombo

Schedule: Nov. 19 & 21, 2025 9:00 AM–5:00 PM (Virtual and On-site at OUSL Conference Center)

Registration Process:

1. Register for the main conference.
2. Receive a confirmation email with workshop participation details.

Space is limited. Early registration is recommended to secure your spot.

Map - OUSL


