ICARC – 2025

"*Converging Horizons: Uniting Disciplines in Computing Research Through AI Innovation*"

5TH INTERNATIONAL CONFERENCE ON
ADVANCED RESEARCH IN COMPUTING

ICARC

International Conference on Advanced Research in Computing

19TH – 20TH FEBRUARY 2025
FACULTY OF COMPUTING, SABARAGAMUWA UNIVERSITY OF SRI LANKA,
BELIHULOYA, SRI LANKA

Conference Programme at a Glance

	Day 01	Day 02
	19th February, 2025	20th February, 2025
08.00 – 08.30	Breakfast	Breakfast
08.30 – 09.00	Graduate Colloquium - ICARC 2025 Knowledge Management and Software Engineering – I Knowledge Management and Software Engineering – II Digital Transformation in Healthcare - I Digital Transformation in Healthcare - II Generative AI Enhanced Teaching and Learning - I Generative AI Enhanced Teaching and Learning - II	Artificial Intelligence and Machine Learning - I Text Analytics and Natural Language Processing - I Digital Transformation and Industry 5.0 - I Computer Networks and Internet of Things - I Open - I
09.00 – 09.30		
09.30 – 10.00		
10.00 – 10.30		
10.30 – 11.00		
11.00 – 11.30		
11.30 – 12.00		
12.00 – 01.00	Lunch	Lunch
01.00 – 02.00		Artificial Intelligence and Machine Learning – II Artificial Intelligence and Machine Learning - III Text Analytics and Natural Language Processing - II Digital Transformation and Industry 5.0 - II Computer Networks and Internet of Things - II Open - II
02.00 – 02.30	Welcome Tea	
02.30 – 04.00	Inauguration	
04.00 – 04.30		Tea
04.30 – 05.00		
05.00 – 06.00		

Plenary Speech Schedule

	Plenary Speaker	Moderator	Date and Time
Plenary Talk 01	Prof. Anuradha Karunasena Sri Lanka Institute of Information Technology, Sri Lanka	Dr. LS Lekamge, Sabaragamuwa University of Sri Lanka	19th February 2025 08.30 am – 09.00 am
Plenary Talk 02	Prof. Buddhika Jayasekara, University of Moratuwa, Sri Lanka	Ms. Umaya Balagalla, University of Sri Jayewardenepura	19th February 2025 08.30 am – 09.00 am
Plenary Talk 03	Prof. Pradeep Abeygunawardhana, Sri Lanka Institute of Information Technology, Sri Lanka	Dr. RAHM Rupasingha, Sabaragamuwa University of Sri Lanka	19th February 2025 12.30 am – 01.00 pm
Plenary Talk 04	Dr. HMDK Herath, University of Peradeniya, Sri Lanka	Dr. WVSK Wasalthilake, Sabaragamuwa University of Sri Lanka	20th February 2025 08.30 am – 09.00 am
Plenary Talk 05	Dr. Supunmali Ahangama, University of Moratuwa, Sri Lanka	Dr. UAP Ishanka, Sabaragamuwa University of Sri Lanka	20th February 2023 08.30 am – 09.00 am
Plenary Talk 06	Mr. Kavinga Upul Ekanayake, ACCELR (Pvt) Ltd., Sri Lanka	Mrs. KGL Chathumini, Sabaragamuwa University of Sri Lanka	20th February 2023 08.30 am – 09.00 am
Plenary Talk 07	Prof. Anuradha Jayakody, Sri Lanka Institute of Information Technology, Sri Lanka	Mr. HMKT Gunawardhana, Sabaragamuwa University of Sri Lanka	20th February 2023 08.30 am – 09.00 am
Plenary Talk 08	Dr. Madura Prabhani, University of Sri Jayewardenepura, Sri Lanka	Ms. PMAK Wijeratne, Sabaragamuwa University of Sri Lanka	20th February 2023 08.30 am – 09.00 am

Graduate Colloquium - ICARC 2025

Date	**19th February 2025**
Venue	LT202, Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka
Time	08.30 am - 11.15 am

Session	**Graduate Colloquium - ICARC 2025**
Session Chair	Prof. HSR Rosairo, Sabaragamuwa University of Sri Lanka
Panel members	Prof. PKW Abeygunawardhana, Sri Lanka Institute of Information Technology Prof. RMKT Rathnayaka, Sabaragamuwa University of Sri Lanka Dr. S Gayan, University of Moratuwa
Rapporteur	Mrs. KT Dananjali, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mrs. JDU Indumini, Sabaragamuwa University of Sri Lanka

08.30 am - 08.35 am	Introduction of the Chair/Panel members

Time	Paper ID	Paper Title and Authors
08.35 am - 08.50 am	72	A Comparative Analysis of Deep Learning Algorithms for Formality Classification in Texts Using Linguistic Features *K.M.G.S. Karunarathna, R.A.H.M. Rupasingha and B.T.G.S.Kumara*
08.50 am - 09.05 am	80	Towards Ethical Inference in Language Models: Integrating Religious Data and Enhancing Responsible LLM Development *K.S. Ranasinghe and I. Paik*
09.05 am - 09.20 am	81	Advanced Hate Speech Detection in Social Media Content Using LSTM and CNN *A. Varatharaj, S. Ahangama*
09.20 am - 09.35 am	94	ANNOTATE EASE: PDF METADATA EXTRACTION APPLICATION SPECIALIZING IN RESEARCH PUBLICATIONS *K. K. Nivetha and S. Priyasadini*
09.35 am - 09.50 am	96	Analyzing public sentiment and engagement dynamics across global protests *A.C. Nanayakkara*
09.50 am - 10.05 am	135	AI-Powered Automated Fashion Design System: Revolutionizing Creativity and Sustainability in Fashion *K. Srithar and S.Priyasadini*
10.05 am - 10.20 am	217	Predicting the Severity of Liver Cirrhosis with Image Processing Based Machine Learning Models *K. Prabazhini, J.A.U.S.Jayakody and M. Sivatharshan*
10.20 am - 10.35 am	243	Privacy-Protected Iris Recognition Using Block-Feature Fusion *W.A.W.U. Wickramaarachchi, D. Zhao, J. Zhou and J. Xiang*

Time	Paper ID	Paper Title and Authors
10.35 am - 10.50 am	255	Machine Learning Approach to Predict University Students' Not Completing Degree on the First Attempt based on Influential Factors *U.P. Kudagamage, K. Karunanayaka K*
10.50 am - 11.00 am		Summing up by the Chair

Technical Sessions

Day	**19th February 2025**
Venue	Lecture Hall No 08
Time	08.30 am - 12.30 pm

Session	**Knowledge Management and Software Engineering - I**
Session Chair	Professor Anuradha Karunasena, Sri Lanka Institute of Information Technology
Panel Members	Professor Dasuni Nawinna, Sri Lanka Institute of Information Technology Dr Samantha Rajapakshe, Sri Lanka Institute of Information Technology
Rapporteur	Dr. L.S. Lekamge, Sabaragamuwa Universitfy of Sri Lanka
Session Coordinator	Mr. W.D. Dimuthu Lakshan
08:30 am - 08:35 am	Introduction of the Chair
08:35 am - 09:00 am	Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
09:00 am - 09:15 am	70	Impact of Artificial Intelligence on Decision- Making in Information Systems *RWMR Dharani Rajasinghe*
09:15 am - 09:30 am	185	Factors that Affect the Adoption of the Hybrid Project Management Approach: A Systematic Literature Review *A.A.K,G Amarasinghe and R. Wickramarachchi*
09:30 am - 09:45 am	198	How E-commerce Succeeds: The Role of Information Systems in Boosting Customer Satisfaction *G.P.S.L. Pathirana, S.J. Pathirana, G.S.B. Boyagoda, S.M. Thalagala, Dr.K. Wisenthige and C. Aluthwala*
09:45 am - 10:00 am	224	The Impact of Social Media Exposure on Consumer Banking Decisions in Sri Lanka *R.M.M.L. Samarasinghe1 and A.S. Withanaarachchi*
10:00 am - 10:15 am	230	Factors Affecting the Adoption of Agile Scaling Practices in Distributed Software Development Teams *H.P.S. Gandhira and R. Wickramarachchi*
10:15 am - 10:30 am	234	A Secure Protocol for Computer-Based Assessments in Disrupted Environments *Danishka Navin, Kasun De Zoysa, D. D. Karunaratna, S. M. Buddhika Harshanath*
10:30 am - 10:45 am	281	Toward a Greener Web: A Systematic Literature Review of Sustainable Practices in Web Development *R.A.W.L. Wimalasena and Nimasha Arambepola*

10:45 am - 11:00 am	**297**	Developing an AI Readiness Model for Software Project Management: A Thematic Analysis *R.B.M.T. Bandara and Ruwan Wickramarachchi*
11:00 am - 11:15 am	**307**	Analyzing the impact of prompt engineering on efficiency, code quality, and security in CRUD application development *K.A.A Shanuka Janaka Wijayanayake and Kaneeka Vidanage*
11:15 am - 11:30 am	**310**	DevSecOps Implementation for Continuous Security in Financial Trading Software Application Development *S.D.L.V. Dasanayake, Janaka Senanayake, W.M. J. I. Wijayanayake*
11:30 am - 11:45 am	**315**	Driving Innovation through Knowledge Management: Insights for IS Strategies *Harini Jayasundara, Naveen Jayathilake and Ruwan Wickramarachchi*
11:45 am - 12:00 pm	**317**	Enhancing Software Quality Assurance Through Automated Defect Triage *Y.N Binduhewa, P.P.G Dinesh Asanka*
12:00 pm - 12:10 pm		QA Session
12:10 pm - 12:30 pm		Summing up by the Chair

Day	**19th February 2025**
Venue	Lecture Hall Number 09
Time	08.30 am - 12.30 pm

Session	**Digital Transformation in Healthcare - I**
Session Chair	Professor Buddhika Jayasekara, University of Moratuwa
Panel Members	Dr. Muditha Bandara Rathnayaka, PhD, University of Colombo Mr. Dinesh Asanka, University of Kelaniya
Rapporteur	Ms. Umaya Balagalla, University of Sri Jayewardenepura
Session Coordinator	Mr. PG Prasad Kumara

08:30 am - 08:35 am		Introduction of the Chair
08:35 am - 09:00 am		Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
09:00 am - 09:15 am	**88**	Predictive Modeling of Cardiovascular Disease Using Machine Learning: A Comparative Analysis *Sadia Islam Tonni, Md Ashraful Alam, Amir Sohel, Chonchal Khan, Md.Khaledur Rahman Onik and Ismail Hossain Pranto*
09:15 am - 9:30 am	**123**	Comparative Analysis of Overall Survival Prediction for Glioblastoma Patients: Neural Networks vs. Random Forests with Data Augmentation *H.M.L.S. Kumari and C.K. Walgampaya*
9:30 am – 9:45 am	**160**	FracturePro: Automated Bone Fracture Identification and Classification Using an Ensemble Deep Learning Approach *B.K.M.S. Rodrigo and B. Athuraliya*
9:45 am - 10:00 am	**161**	An Examination of Harmonizing Multi-Vendor Cardiac MRI Data for Vendor-Neutral Image Segmentation *Hamdaan Mohideen, Mohamed Ayoob,cOshan Nettasinghe, Vithushan Sylvester and Helmini Bowala*
10:00 am - 10:15 am	**200**	Enhancing Chronic Kidney Disease Prediction: A Hybrid Approach Combining Logistic Regression and Random Forest Models *T.G. Jathunga and N.J. Abeygunwardena*
10:15 am - 10:30 am	**209**	Development of a Multi-Dimensional Image Processing Model for Personalized Diagnosis and Severity Assessment of Skin Diseases *Wijerama NS, Asanka PPG and Mahanama TV*
10:30 am - 10:45 am	**227**	The Application of Machine and Deep Learning Models for Detecting Malware Threats in Healthcare Organizations *A. Zhumabekova, O. Ussatova, V. Karyukin, E.T. Matson, N. Ussatov, K. Zhumabekova, and Y. Begimbayeva*
10:45 am - 11:00 am	**242**	A Comparative Study on Generalized Automated Medical Image Segmentation for Dataset Building *N. Kasineshan, V. Subramanieam , T. Yogeswaran, S.N. Liyanage, G.A.I. Devindi, R.G. Ragel , V. Thambawita and I. Nawinne*
11:00 am - 11:15 am	**256**	Cardiac MRI Segmentation of Ventricular Structures and Myocardium Using U-Net Variants

		C.B. Wijesinghe, D. Meedeniya and P. Yogarajah
11:15 am - 11:30 pm	**260**	Boosting EEG-Based Emotion Recognition with Kolmogorov-Arnold Networks *S. Nimishan, S. Thuseethan, S. Vasanthapriyan and R.G. Ragel*
11:30 pm - 11:45 pm		QA Session
11:45 pm - 12:00 pm		Summing up by the Chair

Day	**19th February 2025**
Venue	Lecture Hall Number 10
Time	09.00 am - 11.15 am

Session	**Digital Transformation in Health Care - II**
Session Chair	Senior Professor Ruwan Gopura, University of Moratuwa
Panel Members	Dr. T. Uthayasanker, University of Moratuwa Ms Anjali Gamage, Sri Lanka Institute of Technology
Rapporteur	Mrs. PKD Kumudu Kaushalya, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. Dumidu Patabandi

09.00 am – 09.05 am	Introduction of the Chair

Time	Paper ID	Paper Title and Authors
09:05 am - 09:20 am	302	Interpretation of Chest X-rays using Deep Learning Techniques for Early Diagnosis of Tuberculosis. *S Prathyunman, S P Kasthuri Arachchi*
09:20 am - 09:35 am	316	Functional Biomarkers of Alzheimer's Disease: Explainable AI using Resting-State fMRI *S.Pavithira, K.Logiraj, J.Tuvensha, S.Subaramya, T.Kokul, and R.Nagulan*
09:35 am - 09:50 am	335	Large Language Model (LLM) Support for Preliminary Consultation in Healthcare. *Abishan Fernando, Dilani Wickramaarachchi*
09:50 am - 10:05 am	348	Engagement of Sri Lankan Medical Practitioners with AI and Mental Health Decision Support AI Chatbot *A.M.Tharindu Sachintha Adhikari Janaka Wijayanayake and. Kaneeka Vidanage*
10:05 am - 10:20 am	384	Optimizing Response Consistency of Large Language Models in Medical Education Through Prompt Engineering *U. G. T. L. Weerathunge, S. Jayalal and T. K. Wijayasiriwardhane*
10:20 am - 10:35 am	392	Model Optimization for Personalized Health Metrics Analysis *Perera K.K.M , Wijesiriwardena A, Pathirana A.P.S, Lakshan G.N, Pipuni Wijesiri, Anuradha Jayakody*
10:35 am - 10:50 am	400	Deep Learning Model for Diabetic Retinopathy Detection Using MobileNet Architecture *G. Vijayakanthan, R. Vaishali and L.J.M.D.N.K. Jayasundara*
10.50 am - 11.05 am		QA Session
11.05 am - 11.15 am		Summing up by the Chair

Day	**19th February 2025**
Venue	Lecture Hall No 11
Time	09.00 am - 11.30 am

Session	**Knowledge Management and Software Engineering - II**
Session Chair	Dr. Kapila Dissanayaka, Sri Lanka Institute Information Technology
Panel Members	Mr. R K Ahmadh Rifai Kariapper, South Eastern University of Sri Lanka Ms Chalani Orthotaarachi, Department of Industrial Management, University of Kelaniya
Rapporteur	Mr. GAC Anuradha Herath, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mrs. J D Tenushi Erandi

09.00 am – 09.05 am	Introduction of the Chair

Time	Paper ID	Paper Title and Authors
09:05 am - 09:20 am	**327**	Evaluating the Effectiveness of Large Language Models in Automated Unit Test Generation *T. Godage, S. Nimishan, S. Vasanthapriyan , P. Vigneshwaranan , C. Joseph, and S. Thuseethan*
09:20 am - 09:35 am	**331**	The Role of IS/IT Strategies in Driving Business Transformation and Achieving Organizational Objectives : A Systematic Literature Review *G.W.S. Hasarinda, G.W. Wikramakalutota, R. Wickramarachchi*
09:35 am - 09:50 am	**334**	Assessing the Limits of Automated Accessibility Testing: Insights for QA Engineers and Tool Developers *D.T.H. Kodithuwakku, D.Wicramaarachchi*
09:50 am - 10:05 am	**337**	Critical Factors Influencing the Maturity of Business Analytics of Software and Apparel Industries in Sri Lanka *T.N. De Silva, J. Wijayanayake and S. Jayasinghe*
10:05 am - 10:20 am	**342**	Barriers and Strategy Analysis for the Usage of Social Media by small and medium-scale enterprises: A Systematic Review *D.D.K.Karawgoda and C.A.Kavirathna*
10:20 am - 10:35 am	**343**	The Role of AI in Software Test Automation *R.M.S. Ranapana, W.M. J. I. Wijayanayake*
10:35 am - 10:50 am	**367**	Evaluating AI-Based Unit Testing Tools: A Focus on Usability, Reliability, and Integration *Hafsa Aarifeen, and Dilani Wickramaarachchi*
10:50 am - 11:05 am	**381**	Implementation of Knowledge Management Practices in Sri Lankan Apparel Sector *M. P Sathsarani Silva and Yehemini Jayatissa*
11.05 am - 11.15 am		QA Session
11.15 am - 11.30 am		Summing up by the Chair

Day	**19th February 2025**
Venue	Lecture hall No 14
Time	12.30 pm - 02.45 pm

Session	**Generative AI Enhanced Teaching and Learning - I**
Session Chair	Professor Pradeep Abeygunawardhana, Sri Lanka Institute of Information Technology
Panel Members	Dr. Kalpani Manathunga, Sri Lanka Institute of Information Technology Mr Prasanna S Hadela, Sri Lanka Institute of Information Technology
Rapporteur	Dr. RAHM Rupasingha, Sabaragamuwa University of Sri Lanka
Session Coordinator	Miss. SA Dinithi Ravindra

12.30 pm – 12.35 pm	Introduction of the Chair
12.35 pm – 01.00 pm	Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
01:00 pm - 01:15 pm	**218**	Transformative Impact of Predictive and Generative AI on Education Workforce in Developing Countries *M Weligodapola, C U Kumarapperuma*
01:15 pm - 01:30 pm	**228**	Revolutionizing Education: Generative AI as a Catalyst for Personalized Learning and Innovative Teaching Practices *I.G.U.D Jayaweera*
01:30 pm - 01:45 pm	**293**	An Approach to Detect Large Language Model Generated Firmware for Arduino Platform *Rajani Gunawardhana and Thareendhra Keerthi Wijayasiriwardhane*
01:45 pm - 02:00 pm	**301**	Leveraging AI to Ensure Authenticity in Student Assignments: A Knowledge-Based Validation and Evaluation Framework *D.C.L Hondarangala, D.Wickramaarachchi*
02:00 pm - 02:15 pm	**305**	A BI Approach for Student Engagement and Retention along with Cognitive Load Analysis for Educator *M.N. Algewatta and K. Manathunga*
02:15 pm - 02:30 pm	**322**	Scoring System for Academic Essay Questions with Personalised Feedback Generation *A.S.D.S. Kumara, D. Asanka*
02.30 pm - 02.35 pm		QA Session
02.35 pm - 02.45 pm		Summing up by the Chair

Day	**19th February 2025**
Venue	Lecture hall No 08
Time	01.00 pm - 02.45 pm

Session	**Generative AI Enhanced Teaching and Learning - II**
Session Chair	Professor Roshan G. Ragel, University of Peradeniya
Panel Members	Dr. Asitha Bandaranayake , University of Peradeniya Dr T.U.K Edirisinghe, University of Sri Jayewardenepura
Rapporteur	Mrs. WVSK Wasalthilaka, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. WD Dimuthu Lakshan

01.00 pm – 01.05 pm	Introduction of the Chair

Time	Paper ID	Paper Title and Authors
01:05 pm - 01:20 pm	258	Enhancing Automated Grading with Capabilities of LLMs: Using Prompt Engineering and RAG Techniques *Thisuri Abeywardana, Nethmini Nandadewa, Vimansa Wickramasinghe, Sudam Rohanadheera, Thilini Nadungodage and Priyantha Hewagamage*
01:20 pm - 01:35 pm	350	Role of GenAI in Student Knowledge Enhancement: Learners Perception *M.S. Faathima Fayaza, Thiviyan Senthilrajah,Upeka Wijesinghe and Supunmali Ahangama*
01:35 pm - 01:50 pm	362	Enhancing Systematic Literature Reviews: Evaluating the Performance of LLM-Based Tools Across Key Systematic Literature Review Stages *L.N.P Silva, D. Wickramaarachchi*
01:50 pm - 02:05 pm	370	Development of a Chat Assistant Using Large Language Models for Personalized Mathematics Tutoring to Overcome Educational Disparities in Sri Lanka *Minuli Kannangara, Chathura Rajapakse, Dinesh Asanka and Nirasha Jayalath*
02:05 pm - 02:20 pm	140	Transforming Music: A Review of Artificial Intelligence in Jazz Reharmonization *S. Jayasinghe and K. Bhareti*
02:20 pm - 02:35 pm	156	Advancements in Generative AI and its Applications *P M L Liyanage, N K Ranasinghe and L V Kruglova*
02:35 pm - 02:40 pm		QA Session
02:40 pm - 02:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 08
Time	08.30 am - 12.45 pm

Session	**Artificial Intelligence and Machine Learning - I**
Session Chair	Dr. Damayanthi Herath, University of Peradeniya
Panel Members	Professor Roshan G. Ragel, University of Peradeniya Dr. Asitha Bandaranayake , University of Peradeniya Dr. Ruwan D Nwarathna, University of Peradeniya
Rapporteur	Mrs. WVSK Wasalthilaka, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. WD Dimuthu Lakshan
08:30 am - 08:35 am	Introduction of the Chair
08:35 am - 09:00 am	Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
09:00 am - 09:15 am	**21**	Machine Learning Based Enhanced Remote Power Analysis Attacks *I. Kasthuripitiya, J. Ariyawansha, T. Ranasinghe, M. Sandirigama and D. Jayasinghe*
09:15 am - 09:30 am	**68**	Classification of Alzheimer's Disease Stages using Weighted Brain Connectivity based Graph Convolutional Neural Network *S.Janany, K.Logiraj, J.Tuvensha, S.Subaramya, T.Kokul, and R.Nagulan*
09:30 am - 09:45 am	**124**	Real-Time Recognition and Translation of Sinhala Sign Language *T.M.Lakmini Anuruddhika S. Thennakoon, Daham C. Kahawearachchi and R. Panchendrarajan*
09:45 am - 10:00 am	**127**	SSL400 - A Comprehensive Word Level Dataset for Sinhala Sign Language Recognition *Yohan Abhishek, T.G.D.K. Sumanathilaka*
10:00 am - 10:15 am	**146**	Enhanced Anomaly Detection in Aerial Imagery using Text to Image Generation *Nethmi Muthugala, Yunpeng Li*
10:15 am - 10:30 am	**155**	Machine Learning Approach to Modeling Rainfall and River Overflow Trends in Nilwala River Basin, Sri Lanka *K.V.N.S. Perera, D.D.A. Arthanayake, M.W.P.Maduranga*
10:30 am - 10:45 am	**164**	Improved Grading Recurrent Unit Model for Urban Traffic Flow Prediction *K.L.Y.S. Karandana, D.D.A. Arthanayake and M.W.P. Maduranga*
10:45 am - 11:00 am	**165**	Comparative Study Between Traditional SARIMA Model And Machine Learning Algorithms To Forecast Monthly Coconut Production In Sri Lanka *A.P.A Fernando, J.B. DonPaul and D.D.A. Arthanayake*
11:00 am - 11:15 am	**181**	Multitasking Neural Network for Cricket Team Selection with Complex Dynamics *W.M.H.G.T.C.K. Weerakoon, H.K.T.C. Halloluwa*
11:15 am - 11:30 am	**191**	A Review on AI-Driven Prediction and Visualization of Kinase Inhibitor Binding Landscapes *M.A.S.D. Jayasundara, R.D. Nawarathna*
11:30 am - 11:45 am	**203**	A Comprehensive Ensemble-Based Approach for Heart Disease Prediction with Feature Selection and Model Analysis

		Mst. Sazia Tahosin, Ismail Hossain Pranto, Mohamamd Muid Uddin Chowdhury, Sonet Barua Emon, Md Ashraful Alam and Chonchal Khan
11:45 am - 12:00 pm	**210**	Indian Sign Language Alphanumeric Hand Gestures Recognition Using Deep Learning Techniques *M. Shakana and M. Ramya*
12:00 pm - 12:15 pm	**233**	ACStyleGAN for Skin Lesion Image Generation *Dilmi Abeytunga and Oshada Senaweera*
12:15 pm - 12:30 pm	**153**	A Robust Vision-Based Dynamic Sign Language Recognition Using a Hybrid CNN-LSTM Model *R.M.D.H.A. Rajapakshe, P.A.D. Chithrani, J.A.D.S Jayasinghe, U.B. Balagalla, B.Pilanawithana, U.L.Wijewardhana and U. Wijenayake*
12:30 pm - 12:35 pm		QA Session
12:35 pm - 12:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 09
Time	08.30 am - 12.45 pm

Session	**Text Analytics and Natural Language Processing - I**
Session Chair	Dr. Supunmali Ahangama, University of Moratuwa
Panel Members	Dr. Samiru Gayan, University of Moratuwa Prof. RMKT Rathnayaka, Sabaragamuwa University of Sri Lanka
Rapporteur	Dr. UA Piumi Ishanka, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mrs. J D Tenushi Erandi

08:30 am - 08:35 am	Introduction of the Chair
08:35 am - 09:00 am	Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
09:00 am - 09:15 am	**28**	Aspect-Based Sentiment Analysis of Student Reviews on MOOC Platforms *A.D.M.B.B. Dissanayake, W.P.A. Fernando*
09:15 am - 09:30 am	**34**	Child's Age Range Prediction Using Sinhala Speech Recognition System. *A.D Kathriarachchi and K. Pulasinghe*
09:30 am - 09:45 am	**132**	Systematic Review of Fine-tuning Approaches for Large Language Models in the Context of Sinhala *Sachin Hansaka, Deshan Sumanathilaka*
09:45 am - 10:00 am	**134**	Recent Trends and Challenges in Assistive Applications for Sinhala-Speaking Adults with Dyslexia: A Decade in Review *P.S. Perera, D. Sumanathilaka*
10:00 am - 10:15 am	**150**	A Review on Leveraging Language Agnostic Automated Text Data Augmentation with Explainable Semantic Integrity *W.A.S.M. Wijesundera and S.M. Peiris*
10:15 am - 10:30 am	**176**	IDENTIFICATION AND TRANSLITERATION OF BRAILLE LETTERS INTO SINHALA TEXT *D.R.C.G.K.Dampalessa and R.G.Ragel*
10:30 am - 10:45 am	**232**	Ensemble Approach for Religious Hate Speech Detection in Text-Based Images on Facebook *Dilushri Pavithra and Roy Smith*
10:45 am - 11:00 am	**236**	Performance Analysis of Text Classification Algorithms for Dhivehi Language Documents *Fathimath Rashma Mohamed, Prasanna S. Haddela*
11:00 am - 11:15 am	**239**	A Hybrid Computational Framework Using NLP and ML for Emotion Analysis in Sinhala Songs *Malinda Peiris and Deshan Sumanathilaka*
11:15 am - 11:30 am	**241**	Intelligent Document Clustering for Sinhala Text: Combining LLM-based NER with Fuzzy Clustering Techniques *R.M.P.P. Rathnayake and P.P.G.D Asanka*
11:30 am - 11:45 am	**246**	Enhancing Resume Analysis: Leveraging Natural Language Processing And Machine Learning for Automated Resume Screening Using KSA Parameters.

		B.A.T Dilshan, P.P.G.D Asanka
11:45 am - 12:00 pm	**266**	Robotic Process Automation Activity Recommendation using NLP Techniques *H. M. T. S. Herath, Dinesh Asanka*
12:00 pm - 12:15 pm	**311**	Enhancing Mobile Wallet Usability through Developer Guidelines: Addressing Challenges in the Sri Lankan Market *V.D.V. Samaradiwakara, S. Jayalal and A.S. Withanaarachchi*
12:15 pm - 12:30 pm	**346**	Enhancing AI Classification Performance: A Framework for Textual Data Quality Assessment *B.S.M.N. Bibulewela , Dilani Wickramaarachchi and P. P. G. Dinesh Asanka*
12:30 pm - 12:35 pm		QA Session
12:35 pm - 12:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 10
Time	08.30 am - 12.45 pm

Session	**Digital Transformation and Industry 5.0 - I**
Session Chair	Mr. Kavinga Upul Ekanayake, ACCELR (Pvt) Ltd
Panel Members	Mr Dhammika Marasinghe, 99x Technology Ms. Sewwandhi Nanayakara, Sysco LABS
Rapporteur	Mrs. KG Lohara Chathumini, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. Dumidu Patabadi

08:30 am - 08:35 am	Introduction of the Chair
08:35 am - 09:00 am	Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
09:00 am - 09:15 am	78	Interbank Liability Analyzing Tool To Manage Short-Term Liquidity Among Banks And Facilitate Liability Limits For Daily Operations *H.P.S.W. Kumara, K.M. Bamunawita and H.R.L.H. Jayasekara*
09:15 am - 09:30 am	83	3D - AI Avatar Attributes Impacting on Bank Customers' Perceived Experience *Imesha Imangi, Supun Lakshan, Surasi Muthumini De Silva, H.A.Dimuthu Maduranga Arachchi, and G.D. Samarasinghe*
09:30 am - 09:45 am	158	Application of Six Sigma Methodology in the Service Industry to Improve Process Efficiency and Customer Satisfaction: Systematic Review *S.M.T. Samarakoon and C.A. Kavirathna*
09:45 am - 10:00 am	231	Industry 5.0 Readiness in the Sri Lankan Apparel Industry: A Systematic Literature Review *Hiruni Keenavinna, Ruwan Wickramarachchi*
10:00 am - 10:15 am	250	The Novel DeepBoost Multi Output Regressor for Household Finance Intelligence *S. H. S. V. Suwandaratna, G. O. Priyankara*
10:15 am - 10:30 am	272	Impact of Cloud-Based Enterprise Systems on Enhancing Business Model Performance in Retail SMEs *H.A.D.J.M. Bandara and C.R. Oruthotaarachchi*
10:30 am - 10:45 am	292	Feature Selection in Machine Learning for Wetland Water Level Prediction *Lakpriya Weragoda, Dhushintha Ramalingam, Upaka Rathnayake and Damayanthi Herath*
10:45 am - 11:00 am	298	Analyzing the Readiness for Digital Twin Implementation in the Apparel Industry: A Systematic Review *Dunston Anthonypillailionel, Chalani Ruchira Oruththotaarachi*
11:00 am - 11:15 am	299	A Computer Vision Approach for Estimating Embodied Carbon to Support Circular Economy Decisions *D. Rajaratnam, R. A. Stewart, T. Liu, A. S. Vieira, I. Amarasinghe*
11:15 am - 11:30 am	319	Impact of Industry 4.0 related Drivers on the Performance of the Logistic Sector : A Study of Sri Lankan Context *Dinithi Samarathunga, Amila Withanaarachchi*

11:30 am - 11:45 am	**320**	Exploring the Impact of Government Service Website Usability on End-User Satisfaction: A Study of Sri Lankan E-Government Websites in the Education Sector *R Adshayan and Y Jayatissa*
11:45 am - 12:00 pm	**323**	Factors Affecting User Experience of Telemedicine: COVID-19 Experience of Healthcare Practitioners in Sri Lanka *G.W.S. Hasarinda, Y. Jayatissa and P.P.G.D. Asanka*
12:00 pm - 12:15 pm	**347**	Enhancing Predictive Maintenance in Industry 4.0: Leveraging AI for Optimal Machinery Health Management *U.P. Lahiru, C. Rajapakse, Thilini Mahanama, Dinesh Asanka*
12:15 pm - 12:30 pm	**357**	An IoT-Enabled Condition Monitoring Device: Integrating Vibration Analysis and Environmental Sensing *M. R. Liyanage, A.W.B.I. Annasiwaththa*
12:30 pm - 12:35 pm		QA Session
12:35 pm - 12:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 11
Time	08.30 am - 12.45 pm

Session	**Computer Networks and Internet of Things - I**
Session Chair	Prof. Anuradha Jayakody, Sri Lanka Institute of Information Technology
Panel Members	Mr. Tharindu Nanayakara, Vice President, Cloud Engineering,NeoVizta Mr Dharshana Kasthurirathn, Sri Lanka Institute of Information Technology
Rapporteur	Mr. HMKT Gunawardhana, Sabaragamuwa University of Sri Lanka
Session Coordinator	Miss. HMC Nirmani
08:30 am - 08:35 am	Introduction of the Chair
08:35 am - 09:00 am	Plenary Speech by the Chair

Time	**Paper ID**	**Paper Title and Authors**
09:00 am - 09:15 am	**31**	Feasibility of Solar-Powered LoRaWAN Sensor Nodes in Tropical Countries *Niroshan Herath, Sampath Edirisinghe, Akila Wijethunge, Nishan Dharmaweera, Uditha Wijewardhana*
09:15 am - 09:30 am	**61**	Hybrid Machine Learning Approach for Enhanced Vulnerability Detection in Cloud Environments Using NIST and MITRE Frameworks *NW Chanaka Lasantha, MWP Maduranga, Ruvan Abeysekara, Valmik Tilwari, Nilotpal Chakraborty, Debashree Sharma*
09:30 am - 09:45 am	**122**	Enhanced Difference Expansion for Secure Secret Sharing and Message Embedding in Digital Images *Dimas Wahono, Nazhifah Elqolby*
09:45 am - 10:00 am	**131**	PairStruct: A Steganographic Algorithm Based on Image Structure and Pair-Pixels Difference Expansion *Alfarabi Muzli, Adifa Widyadhani Chanda D'Layla, Ntivuguruzwa Jean De La Croix, Tohari Ahmad*
10:00 am - 10:15 am	**136**	A Multi-Model Framework for Synthesizing High-Fidelity Network Intrusion Data Using Generative AI *R. Mathushaharan, S. Gayan, S. Edirisinghe, and H. Inaltekin*
10:15 am - 10:30 am	**145**	Cactus Graph Structure to Model Broadband Network Connectivity of Remote Communities *U. S. Premarathne*
10:30 am - 10:45 am	**166**	FlexiSecure - AI-Powered Fraud Detection with Real-Time Alerts and Customizable Security. *N. Mumthas*
10:45 am - 11:00 am	**186**	Bovitrack:Animal behavior monitoring using Machine learning and IoT. *Harsha Viraj, Sumuduni Wijesekara , Kuluni Tharuka, Shenika Fernando, Anuradha Jayakody and Pipuni Wijesiri*
11:00 am - 11:15 am	**188**	SafeHome: Automation and Security System using Internet of Things with Mobile Application *P.A.A. Author, B.O.R. Author, J.S.Author, J.O.N. Author and O.A.M.Author*
11:15 am - 11:30 am	**196**	Multispectral Images and IoT Based Tea Plantation Monitoring: A Proposed System

		Architecture *K.P.W.D.V. Kariyawasam, P.N. Kahandagamage, M.R.R. Fernando, J.M. Fernandopulle, Vishan Jayasinghearachchi and Kapila Dissanayaka*
11:30 am - 11:45 am	**197**	RiderRescue: Motorcycle Crash Detection for Emergency Response Using Support Vector Machine Algorithm in MATLAB *J.S.A. Author, K.G.A. Author, C.A.B. Author, K.S.R. Author, J.O.N. Author and M.T.M. Author*
11:45 am - 12:00 pm	**206**	Real-Time Alum Dosage Optimization Using IoT-Enabled Water Quality Sensing Device *HHC Gunathilaka, HT Kodikara, GRMNND Ranaweera, DWNT Wijethunga, Charithri Yapa, Bhathiya Pilanawithana, Nishan Dharmaweera*
12:00 pm - 12:15 pm	**219**	Scalable Convolutional Neural Network Inference on-the-Edge using Low-Density FPGAs *S. A. U. R. Suraweera Arachchi, W. A. S. Wijesinghe*
12:15 pm - 12:30 pm	**223**	Pairing-Free Certificateless Data Auditing for Fog assisted Cyber Physical Systems *Junaid Alam, S. Maity, and S. Venkatesan*
12:30 pm - 12:35 pm		QA Session
12:35 pm - 12:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 14
Time	08.30 am - 12.45 pm

Session	**Open - I**
Session Chair	Dr. PLM Prabhani, University of Sri Jayewardenepura
Panel Members	Mr. Bhanuka Dayawansa, Curtin University Colombo Dr. Ravimal Bandara, University of Sri Jayewardenepura
Rapporteur	Miss PMAK Wijeratne, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. B Pasindu Nayanajith Balasooriy

08:30 am - 08:35 am	Introduction of the Chair
08:35 am - 09:00 am	Plenary Speech by the Chair

Time	Paper ID	Paper Title and Authors
09:00 am - 09:15 am	**16**	A New Era of Productive Learning Focused on the Retention of Attention Span: VerbaSure *S. Premnath, K. Ekanayake, T. Pieris, E. Hettiarachchi and K.P. Hewagamage*
09:15 am - 09:30 am	**108**	Uniting Digital Disciplines: Bridging Literacy, Ethics, and Security Among University Students *Hansi Munasinghe, Kaushalya Hewawasam*
09:30 am - 09:45 am	**109**	Channel Adaptive Decoding in Underwater Optical Camera Communication Systems *Thimuthu Aberathna, Miyuni Kumarage and Nuwan Atthanayake*
09:45 am - 10:00 am	**130**	WaveCryptor: A Secure Hybrid Framework Combining Encryption and Steganography via Frequency Mapping *WDSS Pemasinghe*
10:00 am - 10:15 am	**177**	The Influence of Generative AI on work-life balance among female software professionals in Sri Lanka *W.A.S Upeksha, K.P.D.T Samarasinghe, T.G.M Sanochana, S.A.D.S.N Samarathunga, L. Rajamanthri, T. Samarakkody and C. Aluthwala*
10:15 am - 10:30 am	**192**	BAHAGAP: Design and Development of an Image Processing-Based Detection and Monitoring System for Early Flood Warnings in High-Risk Zones *Juliet Niega ,Jan Ricky Almazan ,Racell Saludes ,Jeru Pohl Avanzado ,Jan Cloyd Naval ,Nuel Jayson Alcantara*
10:30 am - 10:45 am	**193**	Design And Development Of RWMS: A Residential Wastewater Management System with Filtration and Water Quality Monitoring *Juliet Niega , Shammah Nissi Amoto , John Melvin Burgos , Pio Constantine Cruz , Stephen Rein Losauro , Mark Angelo Mercado*
10:45 am - 11:00 am	**205**	A Conceptual Design Framework for an Enhanced Hearing Aid Application Using Selective Sound Amplification *D.S. Gamage, A.M.A.D Bandara and T.A. Weerasinghe*
11:00 am - 11:15 am	**238**	Image Processing and CNN based Anxiety, Depression, and Hypertension Identification through Iridology : A Systematic Review *KPI Nethtra and DVDS Abeysinghe*

11:15 am - 11:30 am	**254**	The Factors Influencing Green IT Adoption in IT organizations in SriLanka *Thennila Mathimaaran, Yehemini Jayatissa*
11:30 am - 11:45 am	**259**	Very Short-Term Surplus Energy Forecasting for Peer-to-Peer Energy Trading in Microgrids *T. Sajarupan, M.P.P. Liyanage, A.H Wijethunga, J. B. Ekanayake and B.W.H.A. Rupasinghe*
11:45 am - 12:00 pm	**274**	Enhancing Student Engagement in Sri Lankan Higher Education Through IoT: UTAUT Model *K.D.B. Aratthanage, B.M.G.S.T.S.K. Wickramasinghe, H.R.S. Senanayake, P.T.R. Dabare, W.A.L.P. Fernando, N.M. Siyad*
12:00 pm - 12:15 pm	**280**	Impact of Moodle's Usability on Student Satisfaction in Sri Lankan Universities *Ahamed Zaljey, Yehemini Jayatissa*
12:15 pm - 12:30 pm	**324**	Unveiling Candidates' Traits and KSA Mapping Through Video Analysis in Interviews *P.H.C.D.S. Abeygunawardhana, D. Asanka*
12:30 pm - 12:35 pm		QA Session
12:35 pm - 12:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 08
Time	01.30 pm - 06.30 pm

Session	**Artificial Intelligence and Machine Learning-II**
Session Chair	Dr. Damayanthi Herath, University of Peradeniya
Panel Members	Professor BTGS Kumara, Sabaragamuwa University of Sri Lanka Dr. Wijendra Gunathilake, General Sir John Kotelawala Defence University Dr. Asitha Bandaranayake, University of Peradeniya
Rapporteur	Mrs. WVSK Wasalthilaka, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. WD Dimuthu Lakshan

01:30 pm - 01:35 pm	Introduction of the Chair

Time	Paper ID	Paper Title and Authors
01:35 pm - 01:50 pm	271	Underwater Image Enhancement Using Depth Estimation and a Transformer-GAN Model *S. Pushpanayagam, T. Kokul, A. Ramanan, and U.A.J. Pinidiyaarachchi*
01:50 pm - 02:05 pm	279	Predictive Modeling for Identifying Early Warning Signs of Underperformance in Vocational Education *D. S. S. Hettiarachchi, S. M. B. Harshanath*
02:05 pm - 02:20 pm	288	Color and Grayscale Pencil Image Translation Into Realistic Images Using Generative Adversarial Networks. *R.K.B. Yeshani, Charith Chiththranjan*
02:20 pm - 02:35 pm	289	A Multi-Model Automated Framework for Scalable and Robust Outlier Detection in Data Warehousing *W.W.A.D.R. Fernando, and P.P.G.D. Asanka*
02:35 pm - 02:50 pm	294	Developing Predictive Models for Future Stress Likelihood and Recovery Time Using Behavioral and Emotional Data. *Weerasinghe W. P. D. J. N., Gunasekera H. D. P. M., Wickramasinghe B. G. W. M. C. R , Jayathunge K. A. D. T. R., Pipuni Wijesiri, Thamali Dassanayake*
02:50 pm - 03:05 pm	321	Deep Learning Based Export Oriented Guppy Fish Health Classification Method *K. I. C. Gunathilaka, R. A. P. Buddhika*
03:05 pm - 03:20 pm	325	Vibration-Based Failure Prediction in Machinery: Novel Application of Time Series Decomposition and Neural Networks *W.C.Nirmal, H.K.I.S.Lakmal and K.J.P.Fernando*
03:20 pm - 03:35 pm	326	Advanced Techniques for Kingfisher Species Identification Using Machine Learning and Deep Learning. *C.S. Vidanagamachchi, W.G. D Chathuranga, L.L.G. Chathuranga, K.T.A.S. Jayathilake, R.B. Yeshani and S.M. Vidanagamachchi*
03:35 pm - 03:50 pm	379	Deep Learning-Based Road Sign Detection & Recognition System for Autonomous Vehicles *P.G.B.A.H.Jayarathne and R.A.Prabhath Buddhika*
03:50 pm - 04:05 pm	388	Enhancing Human Emotion Detection in Audio Data with Deep Neural Networks Using Cross-Dataset *Sandushi Weraduwa, Minuli Kanangara, Shiran SuriyaPathiraja and Thilini V.Mahanama*

04:05 pm - 04:15 pm	QA Session
04:15 pm - 04:25 pm	Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 08
Time	04.30 pm - 06.45 pm

Session	**Artificial Intelligence and Machine Learning-III**
Session Chair	Professor Jayalath Ekanayake, UWA Wellasa University
Panel Members	Professor BTGS Kumara, Sabaragamuwa University of Sri Lanka Dr Suneth Pathirana, UWA Wellasa University
Rapporteur	Mrs. W.T.S. Somaweera ,Sabaragamuwa University of Sri Lanka, Sri Lanka
Session Coordinator	W.M.L Shehara Abethunga,Sabaragamuwa University of Sri Lanka, Sri Lanka

04:30 pm - 04:35 pm		Introduction of the Chair

Time	Paper ID	Paper Title and Authors
04:35 pm - 04:50 pm	**403**	AYURVEDIC PLANT IDENTIFICATION THROUGH DEEP LEARNING APPROACHES A CASE STUDY IN SRI LANKA *M.Thanujan, J.Yukatharsana, W.A.Sanjeewa and M.Janotheepan*
04:50 pm - 05:05 pm	**56**	Evaluation of Machine Learning Models in Student Academic Performance Prediction *A.G.R. Sandeepa, S.D. Mohottala*
05:05 pm - 05:20 pm	**394**	Infrared-Augmented CycleGAN (IRACycle GAN) for Unpaired Night-to-Day Image Translation *K.J.P.Fernando, H.K.I.S.Lakmal and W.C.Nirmal*
05:20 pm - 05:35 pm	**291**	Machine Learning Approach to Identify the Incidence of Human Deaths Due to Human-Elephant Conflicts *W. A. D. M. Lakshitha, N.V. Chandrasekara, D.M.P.V. Dissanayaka and H.W.B. Kavinga*
05:35 pm - 05:50 pm	**101**	Arthropodia-V1: Biodiversity dataset for semantic segmentation, quality estimation, and observation extraction *Mohamed Ayoob, Tomas Maul and Tissa Chandesa*
05:50 pm - 06:05 pm	**159**	A STATISTICAL FEATURE EXTRACTION APPROACH USING BIRD FLIGHT CALLS *K.M.L.K. Mahanayake and S.P Abeysundara*
06:05 pm - 06:20 pm	**167**	Evaluating HLS4ML For Converting a CNN Model Into High Level Synthesis *Noura Jariri, Mohammed Chaman, Rania Majdoubi, and Abdelkader Hadjoudja*
06:20 pm - 06:35 pm		QA Session
06:35 pm - 06:45 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 09
Time	01.30 pm - 03.15 pm

Session	**Text Analytics and Natural Language Processing - II**
Session Chair	Dr. Supunmali Ahangama, University of Moratuwa
Panel Members	Dr. Budditha Hettige, General Sir John Kotelawala Defence University Dr. Suneth Pathirana, Uwa Wellasa University
Rapporteur	Dr. UA Piumi Ishanka, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mrs. J D Tenushi Erandi

01:30 pm - 01:35 pm		Introduction of the Chair
Time	**Paper ID**	**Paper Title and Authors**
01:35 pm - 01:50 pm	**363**	Influence Ranking of Hate Users in Content Propagation on Twitter *S. Perera, I. Perera and S. Ahangama*
01:50 pm - 02:05 pm	**252**	Identification of the severity level of a hate text by YouTubers *S. Perera, A. Varatharaj, I. Perera and S. Ahangama*
02:05 pm - 02:20 pm	**244**	Generative AI based mobile application for vehicle breakdown and maintenance assistance *Amindu Weerawardhana and Pradeep Pallegama*
02:20 pm - 02:35 pm	**129**	Deep Learning based Song Recommendation System for Emotions of the Listener *L. A. T. Perera, M. Mervyn, A. Welhenge and A.Taparugssanagorn*
02:35 pm - 02:50 pm	**95**	A Comprehensive Review of Bias Detection and XAI Techniques in NLP *Loganathan Bhavaneetharan*
02:50 pm - 03:00 pm		QA Session
03:00 pm - 03:15 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 10
Time	01.30 pm – 03.40 pm

Session	**Digital Transformation and Industry 5.0 - II**
Session Chair	Mr. Kavinga Upul Ekanayake, ACCELR (Pvt) Ltd
Panel Members	Mr Dhammika Marasinghe, 99x Technology Ms. Sewwandhi Nanayakara, Sysco LABS
Rapporteur	Mrs. KG Lohara Chathumini, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. Dumindu Patabadi

01:30 pm - 01:35 pm	Introduction of the Chair	

Time	Paper ID	Paper Title and Authors
01:35 pm - 01:50 pm	366	Efficiency Evaluations in 3PL Warehouse Operations: Building Research Themes Through Systematic Literature Review. *R. de Abrew, C. Kavirathna, A. Wijayanayake and K. Abhilashani*
01:50 pm - 02:05 pm	383	Towards Sustainable Software Testing Practices in IT Firms *W.P.P.M. Pathirana, and Yehemini Jayatissa*
02:05 pm - 02:20 pm	90	Bibliometric Analysis of Sustainable Digital Technologies for Reducing Waste in the Food Supply Chain. *Kavith Balachandra, Niles Perera*
02:20 pm - 02:35 pm	103	Empirical Evaluation of Deep Learning Models for Long-Term Solar Power Generation Forecasting *P.D.C.G. Karunathilaka and S. Wickramanayake*
02:35 pm - 02:50 pm	283	IoT Based Smart Waste Bins for Smart Waste Management in Sri Lanka. *H.P.B.D. Hemapriya, D.S. Hewaranaweera, N.T.M. Sajith, A.M.A. Saja and M.N.M. Aashiq*
02:50 pm - 03:05 pm	332	IntelliCross :Adaptive Pedestrian Crossing System *Udayanga Dissanayake, Dinusha Weerasekara, Hansika Sumanasekara, Dodamgoda Ishara, Pipuni Wijesiri and Menaka Moonamaldeniya*
03:05 pm - 03:15 pm		QA Session
03:15 pm - 03:30 pm		Summing up by the Chair

Day	**20th February 2025**
Venue	Lecture Hall Number 11
Time	01.30 pm - .03.00 pm

Session	**Computer Networks and Internet of Things - II**
Session Chair	Prof. Anuradha Jayakody, Sri Lanka Institute of Information Technology
Panel Members	Dr. Tharaga Sharmilan, University of Kelaniya Mr. Tharindu Nanayakara, Vice President, Cloud Engineering,NeoVizta Ms Shashika Lokuliyange, Sri Lanka Institute of Information Technology
Rapporteur	Mr. HMKT Gunawardhana, Sabaragamuwa University of Sri Lanka
Session Coordinator	Miss. SA Dinithi Ravindra

01:30 pm - 01:35 pm	Introduction of the Chair

Time	Paper ID	Paper Title and Authors
01:35 pm - 01:50 pm	**276**	Customizable DDoS Attack Data Generation in SDN Environments for Enhanced Machine Learning Detection Models *P.N Gayantha, C. Rajapakse and J. Senanayake*
01:50 pm - 02:05 pm	**333**	Towards Sustainable Radio Access Networks: Enabling Technologies and Open Challenges *Karunaharan Vithusan, Samiru Gayan and Sampath Edirisinghe*
02:05 pm - 02:20 pm	**171**	An Application to Integrate Remote Vital Signs in a Real-Time Video Telehealth Call *L. Sutton, A. Welhenge and N. Fernando*
02:20 pm - 02:35 pm	**385**	Cybersecurity for Cloud-Based IoT Devices: Views from IT Professionals *A.W. S. Aamina, K.S. Lasith Gunawardena and Nalin Arachchilage*
02:35 pm - 02:45 pm	QA Session	
2.:45 pm - 03:00 pm	Summing up by the Chair	

Day	20th February 2025
Venue	Lecture Hall Number 14
Time	01.30 pm - 03.15 pm

Session	Open - II
Session Chair	Dr. PLM Prabhani, University of Sri Jayewardenepura
Panel Members	Ms. Abarnah Kirupananda, Informatics Institute of Technology Ms Samanthi Wikramasinghe,ESOFT Metro Campus, Sri Lanka
Rapporteur	Mr. PMAK Wijeratne, Sabaragamuwa University of Sri Lanka
Session Coordinator	Mr. B Pasindu Nayanajith Balasooriya

01:30 pm - 01:35 pm	Introduction of the Chair

Time	Paper ID	Paper Title and Authors
01:35 pm - 01:50 pm	328	Agent-Based Modeling of Human-Elephant Conflict Dynamics: A Simulation Approach Using NetLogo *W.W.A.D.R Fernando, R.A.C.P. Rajapakse, U.P Lahiru, D.M.T.W. Ariyarathne, N.S WIjerama ,B.A.T Dilshan*
01:50 pm - 02:05 pm	371	An Agent-Based Model to Address the Gap in Internship Opportunities for IT Undergraduates in Sri Lanka *Sandushi Weraduwa, Nadeera Gayantha , Kavindu Piyumantha, Minuli Kannangara and Chathura Rajapaksa*
02:05 pm - 02:20 pm	375	A Game Centric E-Learning Application For Preschoolers *N. Kodagoda, D.I. De Silva, D.A.M.N. Kulasekara, P.G.I. Nipun, H.M.D.L.B.A. Dombawela and G. S. Manilka*
02:20 pm - 02:35 pm	376	Evaluating Blockchain Integration for Enhanced Security and Transparency in ERP Systems: A Systematic Review Across Manufacturing, Healthcare, and Finance Domains *G.W. Wickramakalutota and C.R. Oruthotaarachchi*
02:35 pm - 02:50 pm	386	Optical Observation for Body Angles of Cricket Players' Motion to Identify the Batting Shots *J.I. Randika, D.K.A. Induranga, G.D.K.V. Maduwantha, B.T.G.S. Kumara*
02:50 pm - 03:00 pm		QA Session
03:00 pm - 03:15 pm		Summing up by the Chair