

ORAL PRESENTATIONS

27th September 2024

TECHNOLOGY

Theme: Sustainable and Resilient Technological Systems in the Era of AI

Chairperson	Dr. HRWP Gunathilake Department of Computer Science, Faculty of Computing General Sir John Kotelawala Defence University
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0855 Hrs	Integrating Sentiment Analysis and Predictive Modelling for Stock Forecasting: A Case Study on Sentiment-Sensitive Industries in the Colombo Stock Exchange. MASH Perera ^{1#} , GWGIU Munirathna ¹ , WUD Perera ¹ , MT Dewmika ¹ , HWRS De Silva ¹ , and DU Vidanagama ¹
0855 – 0910 Hrs	Improving Cyber Security Education through Gamification in Sri Lanka AVNL Rajakaruna ^{1#} , Darwin Alfred ² , Prof. R Abeysekera ³
0910 – 0925 Hrs	Innovating Sri Lankan School Management: A Design Science Research Approach to Developing an Automated Web-Based School Management System LDTT De Silva ^{1#} , N Wedasinghe ¹
0925 – 0940 Hrs	Revolutionizing Mobility: Exploring the Integration of Ridesharing and Parcel Delivery Applications B K T Pabasara ^{1#} , N. Wedasinghe ¹
0940 – 0955 Hrs	Differences in Learning Environment: The Effectiveness of online Learning platforms in Higher Education D N Gamanayake ^{1#} , R Laveena ²
0955 – 1010 Hrs	Summing up by the Session Chair

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Chairperson	Prof. KB Jayasekara Department of Medical Laboratory Sciences Faculty of Allied Health Sciences General Sir John Kotelawala Defence University
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1055 Hrs	Eco-Friendly Innovation: Photocatalytic Degradation of IC-50 Orange Dye with Banana Flower ZnO Nano particles V. Gamage ^{1,3} , G. Thiripuranathar ^{1#} , U. Nishshanka ² , N. Priyantha ³ , M.D. Goonatilleke ⁴ , B.S. Guiton ⁴ , and S. Jayanetti ⁵
1055 – 1110 Hrs	Development of a Machine Learning-Based Methodology for Accurate Staging of Lumbar Intervertebral Disc Degeneration using T2-Weighted Magnetic Resonance Imaging (MRI) and Radiomics Features Denuwanthi Gayanthika ¹ , Duminda Satharasinghe ¹ , Buddhika Shrimal ¹ , A.S.Pallewatte ² , and J Jeyasugiththan ^{1#}
1110 – 1125 Hrs	Development and Characterization of a Cinnamon-based cereal using low-pressure cold extrusion for hyperglycaemia management P.G.U. Chathuranga ¹ , P.H.U.W. De Silva ¹ , and B.M. Jayawardena ^{1#}
1125 – 1140 Hrs	Development Of Low-Pressure Extraction Technique To Extract Plant Secondary Metabolites M.S.S.W.R.A.M.I.N. Rajaguru ¹ , B.M. Jayawardena ^{1#}
1140 – 1155 Hrs	Harnessing wave energy for sustainable and resilient power generation in Sri Lanka: A feasibility study MPD Manohara ^{1#} , MGND Weerathna ² , and SHD Liyanage ³

1155 – 1210 Hrs	Toxicological effects of Flueggea leucopyrus Extracts on Wistar rats: Impact of Different Doses on Physiological Parameters and Organ function US Kulasekara ¹ , and KMGP Premadasa ^{1#}
1210 – 1215 Hrs	Summing up by the Session Chair
1215 – 1330 Hrs	Evaluation of Poster Presentations
1330 – 1430 Hrs	Lunch

POSTER PRESENTATIONS

27th September 2024

TECHNOLOGY

Venue: Faculty of Graduate Studies 3-1

A review of high-capacity battery systems for onboard war ships in the era of artificial intelligence

L M H De Silva[#]

Material Degradation and Durability in Hypersonic Environments

NS Dikkumburage^{1#}

A Critical Review on Compatibility of Energy Storage Technologies with Renewable Energy Integration

VN Vithanage^{1#}, and HMKP Jayathilaka²

How Ultrasound Imaging Could Revolutionize Brain Imaging: A Review of its Potential as an Alternative to MRI and CT

KDHG Jayawardena^{1#}, UM Senarathna², MD Wickramanayake³, and IDCL Gunarathna⁴

AI-Assisted Learning: A Study on Undergraduate Web Development Proficiency

MTA Wickramasinghe^{1#}, and SHIDN De Silva²

Development of Novel RBC Histogram and RDW-CV Parameter for Improved Diagnosis and Monitoring of Iron Deficiency Anemia using Computational Mathematical Tool

HN Ranasinghe^{1#}, VW Liyanaarachchi², US Rahubadda¹ and DK Kottahachchi¹

A Comprehensive Framework for Strengthening IoT Security: Mitigating Vulnerabilities through Advanced Mechanisms in Industrial Systems

M I Sathsara^{1#}, A kurunayaka² and R Laveena³

A web-based learning and teaching platform for students sitting for Advanced Level French

PB Ramanayake[#], N. Wedasinghe¹

Urban Youth Perspectives on AI-Driven Solutions for Food Waste Management: Evaluating the Smart Food Waste Accelerator Prototype in Colombo

N. J. Zeron Anas^{1#} and N.J.M. Asam²

Review of potential research and development areas in the technological aspect of Bioprinting

VW Liyanarachchi^{1#}

DIGITAL PRESERVATION TECHNOLOGY FOR TRADITIONAL ARTS IN SRI LANKA

T.Kiniththa^{1#}

Predictive Modeling of Breast and Oral Cancer Incidence Trends in Sri Lanka: Utilizing Random Forest Algorithm and National Cancer Registry Data

A Neththikumara¹, D Satharasinghe^{#1}, J Jeyasugiththan¹, L Liyanage², RMDS Rasnayake³ and Oshada Senaweera⁴

A review of Sustainable Construction Practices Enabled by Internet of Things (IoT): Case Studies and Innovations

T. Prasanthan^{1#}

A Review: Night-to-Day Image Translation Leveraging GANs for Enhanced Visual Perception for Autonomous Driving Systems

K J P Fernando^{1#}, and H K I S Lakmal²