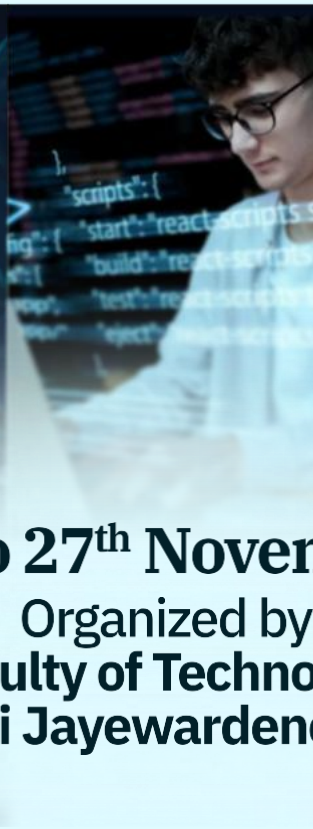




“Exploring Technologies for a Smarter and Sustainable Future”

POSTER PRESENTATION SESSIONS



25th to 27th November 2025

**Organized by
Faculty of Technology
University of Sri Jayewardenepura, Sri Lanka**

Thursday Morning and Afternoon, 27th of November 2025

09.00 a.m. – 12.00 p.m. and 12.45 p.m. – 3.45 p.m.

Two Parallel Sessions at SF1 and FF6

#	Tracks	Session	Time	Hall
1	Artificial Intelligence and Data Science -AID	Poster Session 1	9.00 a.m.- 12.00 p.m.	SF1
2	Food Security, Nutrition, and Processing Technology - FNT			
3	Applied Information Systems, Strategy, and Societal Impacts/ Interactive Media Technology - AISSSI /IMT	Poster Session 2	9.00 a.m. – 12.00 p.m.	FF06
4	Biotechnology, Bioengineering, and Industrial Bioprocessing - BBI			
5	Agricultural Technologies for Sustainability - ATS	Poster Session 3	12.45 p.m. – 3.45 p.m.	SF1
6	Energy, Environment, and Sustainability -EES			
7	Materials Engineering and Process Technology -MEP	Poster Session 4	12.45 p.m. – 3.45 p.m.	FF06
8	Mechatronics, Robotics, and Automation -MRA			
9	Science for Technology - SFT			
10	Technology Education and Management -TEM			

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Poster Presentation Sessions



Poster Session 01

Thursday, 27th November 2025 – 9.00-12.00 IST (UTC+5.30)

Venue: SF01

Session Coordinator: Prof. Lasanthi Jayathunge, Dr. Danushika Manatunga, Ms. Kaushika Seelanatha

Session Co-coordinator: Mr. Madushan Dananjaya, Ms. Fathima Alifiya

Track	Artificial Intelligence and Data Science - AID		
Panel Members	ID	Abstract Title	Authors
Dr. Thilak Hapugahage Dean Faculty of Computing, ESOFT Metro Campus Dr. Pabudi Abeyrathne Senior Lecturer Department of Network and Security, Faculty of Computing, NSBM	43	Validation and Application of a Financial Literacy Among Young Adults in Sri Lanka.	Priyanthi Rajamanoharan
	215	TransUNet-Based Hybrid CNN-Transformer Approach for Accurate Breast Cancer Ultrasound Segmentation	Geerthana Vimalambikaipakan

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Poster Presentation Sessions



Poster Session 01

Thursday, 27th November 2025 – 9.00-12.00 IST (UTC+5.30)

Venue: **SF01**

Session Coordinator: Prof. Lasanthi Jayathunge, Dr. Danushika Manatunga, Ms. Kaushika Seelanatha

Session Co-coordinator: Mr. Madushan Dananjaya, Ms. Fathima Alifiya

Track		Food Security, Nutrition, and Processing Technology – FNT	
Panel Members	ID	Abstract Title	Authors
Dr. Chathuri Senanayake Senior Lecturer Department of Biosystems Technology, Faculty of Technology, University of Sri Jayewardenepura	12	Development and Analysis of Herbal Floral Wine from <i>Clitoria ternatea</i> (Butterfly Blue Pea)	W.T. Tharushi Dewmini Botheju , Nivetha Rajendran
	75	Assessment of Nutritional Composition of Green Leafy Vegetable <i>Pisonia grandis</i> in Sri Lanka	Piyumasha Kodippili , Sumudu Mapa, Chamila Kadigamuwa , Jayangika Dahanayake
	76	Formulation and Evaluation of Gluten-Free High-Fiber Cookies from Finger Millet (<i>Eleusine coracana</i>) and Cassava (<i>Manihot esculenta</i>) Flour Blends	Chamini Dissanayaka , Sawandi Abeysingha, Thanuja Wickramasingha ,Pamudi Wijesingha , Yashoda Wickramasinghe , Madushani Herath
Dr. Jayani Chathurika Senior Lecturer Faculty of Urban and Aquatic Bioresources, University of Sri Jayewardenepura	119	Prevalence and Epidemiological Trends of Hemoparasitic disease in Sri Lankan Cattle: A Review of Distribution and Diagnostics	Kalaivizhi Varathanathan , Thasanthan Loganathan , Susantha Piratheepan
	133	Chitin Nanofiber Reinforced Linear Low-Density Polyethylene (LLDPE) Composites for Sustainable Food Packaging Applications	Isuru Jayalath , Chamali Wijerathne , Ruchira Wijesena , Gayan Priyadarshana
	165	Sustainable utilization of pineapple (<i>Ananas comosus</i> L. Merr.) processing waste for cider development.	Umesha Mendis
	169	Formulation of a Nutrient-Enriched, Ready-to-Eat Vegan Egg Substitute	Kaveesha Dissanayake , Apsara Dias, Pramuditha Gamage, Ruchini Handunwala, Chamodi Bandara , Madushani Herath
	309	The Occurrence of Microplastics on Vegetable Surfaces in Nuwara Eliya	Induwari Edirisingha , Lanaka Jewwani Undugoda, Pathmalal Manage, Nalaka Lankasena, Chami Patabendige , Nilushi Nugara , Peter Macreadie, Punyasloke Bhadury

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Poster Presentation Sessions



Poster Session 02

Thursday, 27th November 2025 – 9.00 – 12.00 IST (UTC+5.30)

Venue: **FF06**

Session Coordinator: Dr. Gayan Siriwardana, Mr. S. Saruban and Mr. Kalana Rajapaksha

Session Co-coordinators: Mr. Pasan Perera, Ms. Piyumi Kalpana, Ms. Hansi Abeygunawardana

Track	Applied Information Systems, Strategy, and Societal Impacts/Interactive Media Technologies - AISSSI/IMT		
Panel Members	ID	Abstract Title	Authors
Dr Dillina Herath Senior Lecturer Senior Lecturer, ESOF Metro Campus Dr Wijendra Gunathilaka Senior Lecturer Faculty of Computing, Kotelawala Defense University	55	Association Between Physical Activity and Physical Fitness in the Information Technology (IT) Workforce of Sri Lanka.	Chanuka Jayasanka ,Dinushi Jinadasa
	204	A GPS-based Real-Time Bus Tracking System for Improving Commuter Experience in Sri Lanka’s Public Transportation	S.A.S.V. Samarasinghe , W.M.C.S.S. Navaratne, R.A.T. Ranasinghe, S.M.H.N. Bandara, P.G.A.P. Pallewatta
	250	Developer Turnover and Its Impact on Software Familiarity	B.G.C.S. Ranasinghe , H.K.T. Nawodya, D.A.D.C. Karunarathne, P.N. Weerasinghe, B.N.S. Lankasen
	295	sEMG-Based Gesture Recognition Systems: A Comprehensive Analysis of Databases and Sensing Technologies	B.M. Seneviratne , B.N.S. Lankasena, I. Jayarathne
	194	Revitalizing Sri Lankan Education: Bridging the Gap in Digital Art and Animation for Primary and Secondary Students	P. B. S. Kaumadi , Aroscha Mediwake

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Poster Presentation Sessions



Poster Session 02

Thursday, 27th November 2025 – 9.00 – 12.00 IST (UTC+5.30)

Venue: **FF06**

Session Coordinator: Dr. Gayan Siriwardana, Mr. S. Saruban and Mr. Kalana Rajapaksha

Session Co-coordinators: Mr. Pasan Perera, Ms. Piyumi Kalpana, Ms. Hansi Abeygunawardana

Track	Biotechnology, Bioengineering, and Industrial Bioprocessing - BBI		
Panel Members	ID	Abstract Title	Authors
Dr. Aruna Kumara Senior Lecturer Department of Agricultural Technology, Faculty of Technology, University of Colombo Dr. Asanka Sanjeewa Senior Lecturer Department of Biosystems Technology, Faculty of Technology, University of Sri Jayewardenepura	95	Verification of ISO 19563:2017 High-Performance Liquid Chromatographic (HPLC) Method for The Detection and Quantification of Theanine Content in Sri Lankan Tea	A. F. Shanha , K. P. G. K. Thushara Guruge, Rohan S. Dassanayake
	230	Scientific Validation of Traditional Use: Anti-Inflammatory Activity of <i>Caryota urens Aqueous Bark</i> extract via Protein Denaturation and HRBC Clot Lysis Assays	H.D.T. Madhuranga , P.G.N. Koshitha, T.M.R.K. Thennakoon, S.T.M.C. Sanjula, S.A.S.S. Adhikari, R.M.C.L. Abesekara, H.L.N.N. Liyanarachchi, W.K.D.A. Fernando, D.N.A.W. Samarakoon, N.D.K. Ranadewa, A.R. Jayamaha, A.S. Hapuarachchia
	264	Awareness of the Impact of Microplastics on Marine Environment among University Students Aged 18-25 in Colombo District, Sri Lanka-A cross sectional Study.	T.A.D.K.A. Thalagala , Sasini Wijewarna

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Poster Presentation Sessions



Poster Session 03

Thursday, 27th November 2025 – 12.45-15.45 IST (UTC+5.30)

Venue: SF01

Session Coordinator: Prof. Lasanthi Jayathunge, Dr. Danushika Manatunga, Ms. Kaushika Seelaratha

Session Co-coordinator: Mr. Madushan Dananjaya, Ms. Fathima Alifiya

Track		Agricultural Technologies for Sustainability - ATS	
Panel Members	ID	Abstract Title	Authors
Dr. Priyanga Kariyawasam Senior Lecturer Grade II Faculty of Technology, University of Colombo Dr. Udari Rathnathunga Senior Lecturer Grade II Faculty of Urban and Aquatic Bioresources, University of Sri Jayewardenepura	171	Effects of Biochar Made from Repellent Material and Cattle Manure on Dry Weight of Shoots and Roots.	N.R.R.W.S. Rathnayake , D.A.L. Leelamanie, T.D.P. Liyanage
	188	Early Detection and Severity Assessment of Bacterial Leaf Blight (<i>Xanthomonas oryzae</i> pv. <i>oryzae</i>) in Rice (<i>Oryza sativa</i> L.) Using NDVI-Based Multispectral Imaging Under Controlled Conditions	W.I.N. Withanage , A.S.A. Salgadoe, C. Ranasinghe
	202	Influence of Fertilizer-Induced Substrate Electrical Conductivity Variations on Growth and Yield of Bell Pepper (<i>Capsicum annuum</i> L.) Grown in Coir-Based Media under Controlled Environment	G.K.Y. Pabasara , A.S.A. Salgadoe, D.P. Senadeera, H.M.D.N. Herath
	261	Development and evaluation of fiber-enriched chicken patties incorporating tamarind seed kernel powder as a functional ingredient	Nagaratnam Arun
	70	IoT-Based Capsicum Plant Analysis Model Using Machine and Deep Learning with an Autonomous Robot	M.H.D. Chirath , S.D. Abeysinghe, A. Wijethunge, C.L. Tennakoon
	112	Wee Saviya: A Digital Platform for Enhancing Paddy Management in Sri Lanka	I.D. Hengoda , W.A.H. Witharana, S.A.N.K. Senarath, G.A. Dhananjani, D.T.P. Dasanayake, M.S. Madhubhashini
	198	Growth and Yield Evaluation of Paddy (<i>Oryza sativa</i>) under a Deep-Water Culture Hydroponic System	P.D.T. Shiwanthani , A.S.A. Salgadoe, H.K.M.R.A.M. Kumarasinghe
	273	Machine Learning-Based Early Detection of Contamination in Tissue Culture	S.N.D. Hettiarachchi , R.G.K. Sankalpana, C. S. Silva, T. Wanigasekara N.V.T. Jayaprada

International Conference on Innovation and Emerging Technologies 2025

Poster Presentation Sessions



Poster Session 03

Thursday, 27th November 2025 – 12.45-15.45 IST (UTC+5.30)

Venue: **SF01**

Session Coordinator: Prof. Lasanthi Jayathunge, Dr. Danushika Manatunga, Ms. Kaushika Seelanatha

Session Co-coordinator: Mr. Madushan Dananjaya, Ms. Fathima Alifiya

Track				Energy, Environment, and Sustainability - EES			
Panel Members		ID	Abstract Title	Authors			
Dr. Jasinth Jayasanka Senior Lecturer Faculty of Technology, University of Sri Jayewardenepura		8	Development And Characterization of Sustainable Brick Using Coal Fly Ash, Clay and Water Hyacinth Derived Biochar	Irukshi Sandunika , Arosha Hemali			
		80	Factors Influencing the Willingness to Buy Electric Vehicles Among Non-EV Users in Sri Lanka	Nimantha Samarakoon , Udara Ravisankha, Eranga Keerthirathna, Thilina Withanage, Pabasari Koliyabandara			
		84	Investigating Photocatalytic Dye Degradation and Antibacterial Activity of Fe2O3 Nanoparticles	Kanahelage Divyanjalee , R.M.A.S. Rathnayake			
Dr. Pradeep Gajanayake Senior Lecturer Faculty of Technology, University of Sri Jayewardenepura		128	Heat Stress in Cattle of Northern Sri Lanka: Physiological, Productive, and Reproductive Impacts, Adaptation Strategies, and Research Gaps in a Warming Dry Zone	Kalaivizhi Varathanathan , Thasanthan Loganathan			
		148	Analyzing the Potential of Water Hyacinth and Habarala for Paper Production	Deelaka Weerarathna			
		159	Regulatory and Economic Instruments for Circular Waste Governance- A Case Study in Sri Lanka	H.G.T.P Samarawickrama , K.P.P. Udayagee, Champika Lasanthi Liyanage			
		220	Performance Evaluation of Cement- and Gypsum-Based Composites Incorporating Coconut Fiber and Rice Husk Ash for Sustainable Building Applications	Sadeepa Fernando , Manori Perera, Pabasari A.Koliyabandara			
		228	Linking Incentives to Smart Environmental Practices: Pathways to Sustainability in Agri-Food SMEs	Hashini Navoda , Prabath C. Abeysiriwardana , Udith K. Jayasinghe Mudalige			
		297	Waste Heat Recovery from the Banbury Mixer to Enhanced Biomass Drying Using Shell and Tube Heat Exchanger	Dilmi Perera , Nuwan Asanka Weerasekara			

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Poster Presentation Sessions



Poster Session 04

Thursday, 27th November 2025 – 12.45- 15.45 IST (UTC+5.30)

Venue: **FF06**

Session Coordinator: Dr. Gayan Siriwardana, Mr. S. Saruban and Mr. Kalana Rajapaksha

Session Co-coordinators: Mr. Pasan Perera, Ms. Piyumi Kalpana, Ms. Hansi Abeygunawardana

Track		Materials Engineering and Process Technology - MEP	
Panel Members	ID	Abstract Title	Authors
Dr. Chami Patabendige Senior Lecturer Department of Science for Technology, Faculty of Technology, University of Sri Jayewardenepura	122	Development of Novel Anti-ageing Coating for Saline Rubber Applications Utilizing Graphene-Calcium Carbonate Encapsules into Chloroprene Latex-based Coating	E.A.P. Lakshan , H.M.C.S. Wijerathne, R.N. Wijesena, G. Priyadarshana
	145	Assessing the Suitability of Bamboo Fabrics for the Development of Sustainable Fitted Sheets	Radhika Vimalkumar
	292	Development of a 3D Printable Composite Using Waste PVC and Polyurethane	Dinesh Kumara , Gayan Siriwardana
Track		Mechatronics, Robotics, and Automation - MRA	
Panel Members	ID	Abstract Title	Authors
Dr. Thamasha Samarasinghe Senior Lecturer, Department of Mechanical Engineering, University of Moratuwa Dr Charithri Yapa Senior Lecturer Faculty of Engineering, University of Sri Jayewardenepura	94	AI-Integrated Underwater Surveillance Robot for Aquatic Life Monitoring and Water Quality Assessment	R. Atiyanpan , P. Sajeevan, R.D. Tharuka, G.A Canistus, R. Thilaksani

Poster Session 04

International Conference on Innovation and Emerging Technologies 2025

Poster Presentation Sessions



Friday, 27th November 2025 – 12.45- 15.45 IST (UTC+5.30)
 Venue: **FF06**
 Session Coordinator: Dr. Gayan Siriwardana, Mr. S. Saruban and Mr. Kalana Rajapaksha
 Session Co-coordinators: Mr. Pasan Perera, Ms. Piyumi Kalpana, Ms. Hansi Abeygunawardana

Track	Science for Technology - SFT		
Panel Members	ID	Abstract Title	Authors
Dr.U.S.Rahubadde Senior Lecturer Dept. of Electrical, Electronic & Telecommunication Engineering, Faculty of Engineering, KDU Prof. W.K.I.L.Wanniarachchi Professor Department of Physics, University of Sri Jayewardenepura	211	Effect of Acid Concentration on Biochar Surface Functionality: FTIR-Based Principal Component Analysis (PCA)	Dishajini Gugenthira , Rasari N. Amarasinghe, Yowin M. Senadheera, Sameera R. Gunathilake
Track	Technology Education and Management - TEM		
Panel Members	ID	Abstract Title	Authors
Prof. C. Nalaka Wickramasinghe Professor Department of Commerce and Financial Management, Faculty of Commerce and Management Studies, University of Kelaniya Mr. Lakmal Eranda Sri Lanka Institute of Information Technology (SLIIT)	63	Assessment of Digital Competency of Students as a key indicator for Technology enabled Education: A case study in ABC Institute, Sri Lanka	H.M.P.M. Dayarathne , U.D. Dissanayake
	192	Cultural Continuity in Watercolour Education: The Legacy of Aesthetic Philosophy and Technology in Contemporary Chinese and Japanese Art	Li Yiren , E. T. Taddese, H. Thakshini, W.U. Yanlin
	300	The impact of Technology-Enhanced Learning Environment and Students' Engagement: Moderating effect of Self-regulated Learning among the State University undergraduates in Sri Lanka	Jasintha Nirojan