Programme Schedule

1st International Conference on Technological Advances and Innovations – 2026
(TechInn-2026)

Join Zoom Meeting	https://learn.zoom.us/j/96873098055?pwd=lwllbkGOK7gHQ4HHMoGUgJSStAqIwX.1
08:00	Registration
08:45	Lighting of Traditional Oil Lamp
09:00	Welcome address by Convener Dr. S. Sayanthan
09:05	Address by Conference Chair Dr. T. Ketheesan
09:10	Address by Chief Guest Senior Professor T. Velnampy
09:25	Publication of the Proceedings of the TechInn-2026
09:40	Plenary Speaker addresses by Prof. Yasmina Sultanbawa
10:10	Keynote address by Prof. Ir. Dr. Hassimi Bin Abu Hasan
10:40	Special Dance Performance - *(Sir Ponnambalam Ramanathan Faculty of Visual and Performing Arts)*
10:55	Vote of Thanks by Joint Secretary Dr. (Ms.) S. Srivarathan
Technical Program	
11:20	Technical session 1, 2, 3, 4 & 5
13:00	Lunch
14:00	Technical session 1, 2, 4 & 5

Date: 23rd September 2026 | Time: 11:20 – 15:20		
Auditorium | Session 1 | Hybrid		
Automobile Technology		
Join Zoom Meeting	https://learn.zoom.us/j/96873098055?pwd=lwllbkGOK7gHQ4HHMoGUgJSStAqIwX.1	
Chairperson: **Prof. Amar Patnaik,** Malaviya National Institute of Technology, Jaipur, India.	**Evaluator:** **Eng. K. P. L. Kumarage,** Mechanical Engineer-Research and Development, National Institute of Post Harvest Management, Anuradhapura, Sri Lanka.	**Track Coordinator:** **Mr. N. Rishiheshan,** Lecturer, Dept. of Engineering Technology, Faculty of Technology, University of Jaffna.

Time	Paper Title and Author Details
11:20 - 11:40	TechInn2026_AT02 Design and Implementation of a Voice-controlled Smart Car using Wireless Communication *Thangavel Jeyakarthik, Edirisinghe Mudiyanselage Toreena Prasadi, Vijenthiran Nesaraj, Thiruchelvam Sangeerthanan and Thayapararajah Sam Niroshan*
11:40 – 12:00	TechInn2026_AT14 Design and Development of an Automated Windshield Defogging System Using a Novel Hot-Air-Assisted Wiper Blade *Vithanage Yasitha Madusanka, Dabara Liyanage Wimukthi Deshan, Madawala Maddumage Nuwandi Sasini, and Wasantha Kumarage Supun Sanjula Wasantha Kumara*
12:00 – 12:20	TechInn2026_AT13 Development and Performance Comparison of a Low-Cost Waste Engine Oil-Fuelled Cooker with a Conventional LPG Cooker *Kanadasan Desman Rukshan, Francis Clinton, Krishnakumar Dilshan, and Vithanage Yasitha Madusanka*
12:20 – 12:40	TechInn2026_AT15 Development of a Real-Time Adaptive Tire Pressure Control System for Enhanced Ride Comfort Across Diverse Road Terrains *Dassanayake Hitihamilage Amandya Eshani Dassanayake, Mudalige Don Sanjana Ashan De Silva and Thennakoon Mudiyanselage Manoj Mayura Thennakoon, and Vithanage Yasitha Madusanka*
12:40 – 13:00	TechInn2026_AT10 Design and Development of an Adaptive Pneumatic Engine Mount for Real-Time Vibration Suppression *Vithanage Yasitha Madusanka, Lorensu Hewage Sasindu Shamicharu, Rajapaksha Mudiyanselage Pasindu Mewantha Rajapaksha and Edirisuriya Appusingolage Isurinda Wikum Bandara*

13:00 – 14:00	**Lunch Break**
14:00 – 14:20	TechInn2026_AT04 Development of a Smart Vehicle Rollover Detection and Emergency Alert System using IoT Technologies *Nadarajan Mithurshan, Sasikumar Prem Abishek, Abdul Rauff Mohamed Sanoos, and Thayapararajah Sam Niroshan*
14:20 – 14:40	TechInn2026_AT03 IOT-Enabled Low-Cost Test Rig for Centrifugal Clutch Slip and Flywheel Energy Decay Analysis *W.M Randika Praween Jayarathna*
14:40 – 15:00	TechInn2026_AT05 Development of an On-Board Helmet Detection System For EV Scooter to Enhance Rider Safety. *Manoharan Pabishan, Mohamed Shafeel Mohamed Bila, Shanmuganathan Nidhurshaan, R.M. Nishada Chamika Bandara and D.M.B.P. Ariyasinghe*
15:00 – 15:20	TechInn2026_AT06 Low-cost automatic air bleeding and quality checking for hydraulic brake systems *Kandasamy Dino, W. D. L. Akiriyagala and K. D. P. Kaveesha Shenal Pathiraja, M. M. Khan*

Date: 23rd September 2026 | Time: 11:20 – 12:00		
Electro Laboratory | Session 2 | Hybrid		
Commercial Green Farming Technology		
Join Zoom Meeting	https://learn.zoom.us/j/99993359986?pwd=Cvha7cWkRgOXBHn806u7MzC6qUq6Cv.1	
Chairperson: **Dr. K. Jeyavanan,** Senior Lecturer, Department of Agronomy, Faculty of Agriculture, University of Jaffna, Sri Lanka.	**Evaluator:** **Dr. N. Thiruchelvan,** Senior Lecturer Department of Agricultural Biology, Faculty of Agriculture, University of Jaffna, Sri Lanka.	**Track Coordinator:** **Ms. A. Muralitharan,** Lecturer, Dept. of Biosystems Technology, Faculty of Technology, University of Jaffna.

Time	Paper Title and Author Details
11:20 - 11:40	TechInn2026_CGFT01 Bio-Waste-Derived Liquid Organic Manure as an Alternative Growth Medium for Trichoderma viride *Dilogi Chandramohan and Gunasingham Mikunthan*
11:40 – 12:00	TechInn2026_CGFT02 Evaluation of Different Border crops for Suppression of Leaf Curl Incidences Improvement of Marketable Yield of field-Grown Capsicum *Imanthi Poornika, Loha Pradheeban, Kirija Nishanthan and Saththiyavahini Kunaneswaran*

Date: 23rd September 2026 | Time: 11:20 – 15:20		
Applied Mechanics Laboratory | Session 3 | Hybrid		
Construction Technology		
Join Zoom Meeting	https://learn.zoom.us/j/98936808746?pwd=McfC1PQnvLYFCJMM54jc9XYJ9Mvto9.1	
Chairperson: **Dr. B. Ketheesan,** Senior Lecturer, Dept. of Civil Engineering, Faculty of Engineering, University of Jaffna, Sri Lanka.	**Evaluator:** **Dr. B. Janarthanan,** Senior Lecturer, Department of Civil Engineering, Faculty of Engineering, University of Jaffna, Sri Lanka.	**Track Coordinator:** **Dr. M. Nithurshan,** Senior Lecturer, Dept. of Engineering Technology, Faculty of Technology, University of Jaffna, Sri Lanka.

Time	Paper Title and Author Details
11:20 - 11:40	TechInn2026_CT04 Dosage Effects of Polypropylene Microfibres on Concrete Workability, Strength and Failure Characteristics under Water and Short-Term Mixed-Sulphate Exposure *Sounthararajan Kautham*
11:40 – 12:00	TechInn2026_CT01 Structural Performance Enhancement of Reinforced Concrete Irrigation Canals Using Tie-Back Strengthening Systems *Jeyabalan Perian Roshan, Kunaratnam Jeyamohan, and Sivarajah Gowrythasan*
12:00 – 12:20	TechInn2026_CT06 Sustainable Production of Concrete Blocks Using Repurposed Tunnel Muck: Technical, Environmental, and Economic Assessment *S. Suvaki, M.I. Sudasingh and J.L.D.T. Wijegunasekara*
12:20 – 12:40	TechInn2026_CT05 Innovative Utilization of Plastic Waste as Aggregate in Lightweight Concrete: A Sustainable Approach *A.K.Mohamed Safri, M.M.A Razak and R.D.W Karunarathna and S.Venuja*
12:40 – 13:00	TechInn2026_CT02 Human-Centred Artificial Intelligence for Construction Dispute Prevention: Exploring the Future Role of Quantity Surveyors *NZ. Nafrin and Adikari YA*
13:00 – 14:00	**Lunch Break**
14:00 – 14:20	TechInn2026_CT03

	Assessing the Attitudinal Feasibility of Implementing Statutory Adjudication in Sri Lankan Construction Industry *Kotagedara Liyanage Tharangani Dilrukshi Perera, Hettiarachchi Gamage Udani Shanika , Madanasinghe Arachchilage Pradeep Madanasinghe and Yashodha Ashini Adikari*
14:20 – 14:40	TechInn2026_CT07 Impact of Ad Hoc Site Instructions on Building Construction Projects in Sri Lanka *Sivaramalingam Saravanakumaran and Arulchelvam Aravinthan*
14:40 – 15:00	TechInn2026_CT08 Optimization of nutrient removal through biomineralisation by Bacillus velenzesis isolate JB7 *Jahira Alias, Hassimi Abu Hasan*
15:00 – 15:20	TechInn2026_CT09 Characterization of Nitrogen-doped Zinc Oxide Modified Membrane and its Performance for Ibuprofen Degradation *Suriya Vathi Subramanian, Hassimi Abu Hasan*

Date: 23rd September 2026 | Time: 12:20 – 15:40		
Electro Laboratory | Session 4 | Hybrid		
Electro Technology		
Join Zoom Meeting	https://learn.zoom.us/j/99993359986?pwd=Cvha7cWkRgOXBHn806u7MzC6qUq6Cv.1	
Chairperson: **Prof. T. Thiruvaran,** Professor, Dept. of Electrical and Electronic Engineering, Faculty of Engineering, University of Jaffna.	**Evaluator:** **Eng. R. Valluvan,** Lecturer, Dept. of Electrical and Electronic Engineering, Faculty of Engineering, University of Jaffna.	**Track Coordinator:** **Eng. A. Kunaraj,** Senior Lecturer, Dept. of Engineering Technology, Faculty of Technology, University of Jaffna

Time	Paper Title and Author Details
12:20 – 12:40	TechInn2026_ET02 GIS-Based Landslide Susceptibility Assessment and Real-Time Risk Communication for Matale District, Sri Lanka *Pannerselvam Sajeevan*
12:40 – 13:00	TechInn2026_ET03 Designing an Intelligent Patient Health Monitoring System: Exploring the IoT Technologies and Their Effects on Human Well-being *Mohamed Ashraff Mohamed Althaff, Abdul Rahman Mohamed Raafeek*
13:00 – 14:00	**Lunch Break**
14:20 – 14:40	TechInn2026_ET08 Development of an AI-Integrated ROS2 Educational Robot for Interactive Learning Assistance *Gnanapragasam shanthoes and Vadivel Hiroshaan*
14:40 – 15:00	TechInn2026_ET06 Design of an Automated Capping System for Mushroom Media Bag Production: An Auxiliary Automation Module for Substrate Bag Packaging *R.M.H. Hansindu Rathnayake, G.K.R. Pathirana, M.A.S. Raweesh Perera, M.G.S. Sonath, B.H.C.S. Thilakarathna, G.G.G.R. Gihara and K.M.W. Raja*
15:00 – 15:20	TechInn2026_ET05 Design and Simulation of a High-efficiency Bidirectional DC-DC Converter for Battery Energy Storage Systems in Solar Applications *Madhini Imasha Pallewelagedara and Dushmantha Yasas Bandara Dissanayaka*

15:20 – 15:40	TechInn2026_ET07 Performance Evaluation of YOLO Models for Sri Lankan Traffic Sign Detection *Saranija Thirunavukarasu, Geerthana Vimalambikaipakan and Dharsika Kothasan*

Date: 23rd September 2026 | Time: 11:20 – 15:00		
Lecture Hall 3 | Session 5 | Hybrid		
Food Production Technology		
Join Zoom Meeting	https://learn.zoom.us/j/98986788523?pwd=8z6AamLQCQ5eKeeyeY0sdTgYIlxk2h.1	
Chairperson: **Dr.(Mrs). S. Sivakanthan,** Department of Agricultural Chemistry, Faculty of Agriculture, University of Jaffna, Sri Lanka.	**Evaluator:** **Dr.(Mrs). S. Kirushanthan,** Department of Agricultural Chemistry, Faculty of Agriculture, University of Jaffna, Sri Lanka.	**Track Coordinator:** **Ms. V. Bavithira,** Lecturer, Dept. of Biosystems Technology, Faculty of Technology, University of Jaffna, Sri Lanka.

Time	Paper Title and Author Details
11:20 - 11:40	TechInn2026_FPT11 Yield Valorization of Pilot Scale Spray Dried Herbal Formulations - A Comparative Study *Liyanage W.R.Y., Sintharasan C., Rashini Munasinghe and Wijayasiriwardena T.D.C.M.K.*
11:40 – 12:00	TechInn2026_FPT08 Development of a Reduced-Sugar Set Yoghurt Using Xylitol as a Sugar Substitute *W.M.D.A. Wijesinghe and T.S Guruge*
12:00 – 12:20	TechInn2026_FPT03 AI-Based Integrated Paddy (Oryza Sativa) Drying System in Harvester using Waste Exhaust Heat *U.Thakshan, P. Miruban. W.M.Akram, J.Tharmaseelan*
12:20 – 12:40	TechInn2026_FPT01 The toxic glow: Screening for illegal color adulteration in branded and non-branded Turmeric powder available in the Sri Lankan market *D Dahanaka Ralalage Iruka Udeshini and Kalanchi Durage Wasula Panchami*
12:40 – 13:00	TechInn2026_FPT06 Phytochemicals in Food Systems: Their Potential Contribution to a Sustainable Future *Michael E. Netzel*
13:00 – 14:00	**Lunch Break**
14:00 – 14:20	TechInn2026_FPT05

	Unlocking Underutilised Foods for a Sustainable Future: The Case of Native Australian Citrus *Joel B. Johnson, Natasha L. Hungerford, Yasmina Sultanbawa3 and Michael E. Netzel*
14:20 – 14:40	TechInn2026_FPT09 Transcriptomic-wide Mapping of Hfq-dependent small RNA-target mRNA interactions in Brucella abortus using RIL-Seq (RNA interaction by ligation and sequencing) *Hajarooba Gnanagobal, Jillian R. Marshall, Kirshanthan Sundararajah, and Clayton C. Caswell*
14:40 – 15:00	TechInn2026_FPT10 Evaluation of Iron Fortification Efficiency in Two Selected Sri Lankan Rice Varieties (*Oryza sativa L.*) via Modified Parboiling Method *J.S.D.C. Jayamali, B.M.K. Senarathna and J. Rajeetha*