



## 12<sup>th</sup> Consecutive Annual Undergraduate Research Symposium UNI-IN ALLIANCE 2026



### TIME SCHEDULE: POSTER PRESENTATION

Time Session	Instrument Centre Building – Faculty of Applied Sciences		
	Biological Sciences	Chemistry and Environmental Science	Theoretical and applied Physics
<b>Morning Session</b> <b>11.00 am – 12.00 noon</b>	<b>ID 20</b>  <b>I.S. Abeysekera</b>  <i>In-silico</i> design and computational validation of a dual-biomarker CRISPR/dCas9-based synthetic genetic AND-gate circuit for epilepsy detection	<b>ID 31</b>  <b>I.H.S. Iluppitiya</b>  Physicochemical properties and crystallinity of commercially available Himalayan rock salt	<b>ID 41</b>  <b>K.A. Fernando</b>  Analysis of sequential extreme precipitation heatwave compound events (SEPHCE) across Colombo, Ratnapura and Anuradhapura, Sri Lanka (2014 - 2024)
	<b>ID 21</b>  <b>L.U.V.G.P. Guruge</b>  <i>In-vitro</i> antibacterial potential of aqueous and methanolic extracts of <i>Entada rheedei</i>	<b>ID 44</b>  <b>E.G.W.M.K. Wanasinghe</b>  Effect of traditional purification on the physicochemical properties of arsenic trioxide ( <i>Gauripashana</i> )	<b>ID 43</b>  <b>M.A.T. Dhananja</b>  Determination of the metallicity of aldebaran using optical spectroscopy

	<i>spreng.</i> bark against selected bacteria		<b>Engineering, Technological Sciences and Innovation</b>
<b>ID 42</b> <b>R.M.S.N. Ranasinghe</b>  A decade later: Catch rates and population dynamics of <i>Metapenaeus dobsoni</i> off Negombo, Sri Lanka	<b>ID 57</b> <b>K.N.B. Perera</b>  Analytical validation and comparative assessment of OLSEN and MEHLICH-3 Phosphorus extraction methods in acidic agricultural soils	<b>ID 67</b> <b>K.H.D. Ukwattage</b>  Design and development of a low-frequency kinetic energy harvester for Elephant tracking collars	
<b>ID 47</b> <b>S.R. Kusumsiri</b>  Phytochemical analysis and antibacterial potential of two varieties of <i>Polyscias scutellaria</i> (kōppa kola) leaves against selected pathogenic bacteria	<b>ID 64</b> <b>H.M.N.U. Fernando</b>  Synthesis and characterization of a biodegradable hydrogel fertilizer enriched with ZnO nanoparticles, NPK fertilizer and Naphthalene acetic acid, for sustainable agriculture		
<b>ID 79</b> <b>W.D.R. Karunathilaka</b>  Phenolic-Rich methanol endemic bark extract exhibits potent antioxidant and anti-inflammatory activities	<b>ID 73</b> <b>U.A. Chamindya</b>  Development and performance evaluation of a polyaspartic wood coating as an alternative to conventional polyurethane coatings		

		for commercial scale use in Sri Lanka	
<b>ID 81</b>	<b>R.N. Liyanapathirana</b>	<b>ID 92</b>	
Cost-effective medium development for fungal growth using locally available starch-rich substrates		<b>T.W. Wijesinghe</b>	
		Sustainability assessment of urban parks in Colombo: An index-based approach	
<b>ID 96</b>	<b>W.K.D.K. Jayasooriya</b>	<b>Polymer Science</b>	
A preliminary study on the incidence of <i>Bacillus cereus</i> group in ready-to-eat rice packets in Nugegoda, Sri Lanka		<b>ID 22</b>	
		<b>S.A.M.N.P.M. Alagiyawanna</b>	
		Root-cause analysis and mitigation of white flakes defect in polyisoprene gloves	
<b>ID 101</b>	<b>B.I.H. Divyanjali</b>	<b>ID 59</b>	
Chloroplast matK gene- based molecular identification of local pumpkin varieties in Sri Lanka		<b>D.G.M. Kaushalya</b>	
		Effect of blending concentrated natural rubber latices from different origins on latex stability	

		<p><b>ID 88</b></p> <p><b>B.W.T. Bhagya</b></p> <p>Evaluation of time-temperature history of polyurethane adhesive films</p>	
		<b>Forestry and Agriculture</b>	
		<p><b>ID 37</b></p> <p><b>H.A.L.S. Wijepala</b></p> <p>Biodegradable polymer-based slow-release fertilizer hydrogel formulation a sustainable approach to enhance growth, chlorophyll content and yield of tomato (<i>Solanum lycopersicum</i>)</p>	
<b>Break</b>			
<b>Afternoon Session 12.30 pm - 1.30 pm</b>	<b>Business and Management Sciences</b>	<b>Information Technology and Computing</b>	<b>Mathematics and Applied Statistics</b>
	<p>ID 7</p> <p><b>T.P.G.S.S. Sewvandi</b></p>	<p>ID 4</p> <p><b>W.A.T.N. Nethmi</b></p>	<p>ID 11</p> <p><b>D.B. Palliyaguruge</b></p>

	Exploring the determinants of the acceptance of current generation to pursue the authentic masks and puppetry industry in Ambalangoda, Sri Lanka	A lightweight explainable CNN-LSTM approach for sleep apnea detection using EEG and EOG signals	Developing a decision support system for pharmaceutical production planning using linear programming
	<p><b>ID 19</b></p> <p><b>S.H. Badullagahapitiya</b></p> <p>Adoption intensity of solar photovoltaic (PV) technology in emerging markets and the influence of after-sales service: A study in the Sri Lankan context</p>	<p><b>ID 25</b></p> <p><b>S.G. Kasthuriarachchi</b></p> <p>Multi-input crop and fertilizer recommendation system for enhanced agricultural productivity</p>	<p><b>ID 16</b></p> <p><b>C.K. Dharmadasa</b></p> <p>An analytical study on reducing metal waste in the steel wheel manufacturing process</p>
	<p><b>ID 50</b></p> <p><b>S.D.L.A. Umanga</b></p> <p>Workplace spirituality, leadership, organizational culture and employee engagement in a nomological network: Evidence from an audit firm in Sri Lanka</p>		<p><b>ID 34</b></p> <p><b>K.N. Sathsara</b></p> <p>Effects of performance appraisal system on employee attitude and work performance of national water supply and drainage board</p>
	<p><b>ID 71</b></p> <p><b>P.S.W. Wanigasekara</b></p>		<p><b>ID 55</b></p> <p><b>R.H. Randeniya</b></p>

	<p>Public perception of service quality in municipal supermarkets in Colombo, Sri Lanka; the influence of infrastructure, management and development practices</p>		<p>Forecast-driven ATM cash replenishment optimization using demand forecasting and cost-based scenario analysis</p>
	<p><b>ID 77</b></p> <p><b>M.A.D.N. Perera</b></p> <p>Exploring the coffee restaurant development over tea consumption in Sri Lanka: special reference to millennials and Gen Z</p>		<p><b>ID 61</b></p> <p><b>S. Pahalage</b></p> <p>A historical trend analysis of spatio-temporal shifts in Sri Lanka's climatic zones and a machine learning framework for future projection</p>
	<p><b>ID 78</b></p> <p><b>S. Layassruthy</b></p> <p>The impact of salesperson intrusiveness on purchase intention: the mediating role of emotional comfort and perceived authenticity, and the moderating role of shopping motivation in Sri Lankan apparel retail stores</p>		<p><b>ID 68</b></p> <p><b>L.P. Hendaheva</b></p> <p>Formula one driver and team performance ranking using functional data analysis and mixed-effects modelling on high-frequency telemetry data</p>
	<p><b>ID 93</b></p>		

	<p><b>R.G.I.G. Gunawardhana</b></p> <p>Awareness of disinformation negative outcomes on social media sources: Gen Z employees in the private sector in Western Province, Sri Lanka.</p>		
	<p><b>ID 102</b></p> <p><b>A.R.K.M. Athukorala</b></p> <p>Persistent consumption of fizzy drinks despite medical confirmation of harmful effects among working individuals below 50 years of age in the Colombo District who consume at least one fizzy drink per week</p>		