



Sri Lanka Association for the Advancement of Science

78th SCIENTIFIC SESSIONS

GLANCE PROGRAMME

Theme: "Effective Science Communication for an Informed Society"

Ceremonial Inauguration:	11 th December 2022	University of Colombo
Theme Seminar:	12 th December 2022	University of Colombo
Scientific Sessions:	13 th - 14 th December 2022	University of Colombo
Young Inventors' Exhibition:	14 th - 15 th December 2022	University of Colombo
Mini Symposia:	15 th December 2022	University of Colombo
AGM (Eligible Members only)	16 th December 2022	SLAAS Headquarters

(Visit www.slaas.lk for online information about 78th Annual Sessions and latest updates)

LIST OF VENUES - SCIENTIFIC SESSIONS AT THE UNIVERSITY OF COLOMBO

Oral Presentations – Sectional Venues

	Chemistry Lecture Theatre (CLT) – 1 st Floor
Section B	Department of Mathematics
Section C	Department of Mathematics
Section D	Biology Lecture Theatre (BLT)
Section E1	Physics Lecture Room (PLR), Department of Physics
Section E2	New Chemistry Lecture Theatre (NCLT) & Chemistry Seminar Room (CSR) – 2 nd Floor
Section E3	New Physics Lecture Theatre (NPLT) – 3 rd Floor
Section F	Department of Mathematics

Poster Presentations: Information & Learning Centre (ILC), Faculty of Science

Other Venues

Ceremonial Inauguration	New Tower Building, Faculty of Medicine, University of Colombo
Theme Seminar:	Information & Learning Centre (ILC) Auditorium, Faculty of Science
SLAAS Office:	Department of Physics Lobby – Ground Floor
Sectional Business Meetings:	Respective Sectional Venues
Presidential Addresses:	Chemistry Lecture Theatre (CLT) – 1 st Floor
Young Inventors' Exhibition:	Department of Physics
Special Council Meeting:	Faculty Board Room/Deans' Office, Faculty of Science (<i>Only for Council Members</i>)
Mini Symposium:	Chemistry Lecture Theatre (CLT), Faculty of Science, University of Colombo
Refreshments:	Ground Floor of Information & Learning Centre (ILC) Auditorium, Faculty of Science
AGM:	SLAAS Headquarters, 120/10, Wijerama Mawatha, Colombo 07 (<i>Only for Eligible Members</i>)

Sri Lanka Association for the Advancement of Science

78th ANNUAL SESSIONS

Ceremonial Inauguration

(Invitees Only)

"Effective Science Communication for an Informed Society"

Sunday, December 11, 2022 at 2.00 p.m.

at the

New Tower Building,
Faculty of Medicine, University of Colombo

Chief Guest

Professor Nimal Gunathilleke
Emeritus Professor, University of Peradeniya

Guest of Honour

Mr. Anura Siriwardena
Founder Editor, Vidusara Science Magazine

Programme

2.00 p.m.	Arrival of Members and Guests
2.20 p.m.	Arrival of the Chief Guest & the Guest of Honour
2.30 p.m.	Introduction of Members of the Council
2.40 p.m.	Commencement of the Ceremonial Procession
2.45 p.m.	Lighting of the Traditional Oil Lamp
2.55 p.m.	National Anthem
3.00 p.m.	Welcome Address Prof. Manuj C Weerasinghe General President/ SLAAS
3.10 p.m.	Felicitations from Sister Associations
3.20 p.m.	Address by the Chief Guest Prof. Nimal Gunathilleke Professor Emeritus, University of Peradeniya
3.50 p.m.	Address by the Guest of Honour Mr. Anura Siriwardena Founder Editor, Vidusara Science Magazine
4.10 p.m.	Presentation of Awards
4.30 p.m.	Address by the General President Prof. Manuj C Weerasinghe
5.00 p.m.	Presentation of Awards
5.15 p.m.	Vote of Thanks Prof. Ranjith Senaratne General President-Elect, SLAAS
5.30 p.m.	Refreshments

Sri Lanka Association for the Advancement of Science

78th ANNUAL SESSIONS

Theme Seminar

(Registered Participants Only)

Monday, December 12, 2022

From 08:00 a.m. to 04:00 p.m.

at the

Information & Learning Centre (ILC) Auditorium,
Faculty of Science, University of Colombo

Theme:

"Effective Science Communication for an
Informed Society"

For Registration:

Please Contact
SLAAS Headquarters
120/10, Wijerama Mawatha,
Colombo 07

Phone: 011 2688 740

Registration Fee:
Rs. 2,500/-

08:00 – 08:45	Registration
08:45 – 08:50	Lighting oil lamp
08:50 – 09:10	Welcome and introductory remarks: Effective Science Communication for an informed society Prof Manuj C Weerasinghe, <i>General President, SLAAS</i>
Session 1: Science Communication in Sri Lanka Chairperson – Dr. Jayanatha Wattevidanage	
09:10 – 09:40	Keynote address Effective Science Communication to the Public: Sri Lanka's Performance and Challenges Speaker: Prof S W Kotagama, <i>Professor Emeritus, Department of Zoology and Environment Sciences, University of Colombo (General President of SLAAS, 2012)</i>
09:40 – 10:00	Discussion
10:00 – 10:30	Role of Science Communication in Nurturing Innovation: The Sri Lankan Experience Speaker: Prof Ajith de Alwis, <i>Senior Professor, Department of Chemical and Process Engineering, University of Moratuwa; Guest columnist for Daily FT since 2012</i>
10:30 – 10:45	Discussion
10:45 – 11:15	Tea/coffee break
Session 2: Science Communication: South Asian Experiences Chairperson- Prof Upul Sonnadara	
11:15 – 11:45	Political Economy of Science Communication in the Global South: Lessons from India Speaker: Ms Sunita Narain, <i>Director General, Centre for Science and Environment (CSE), India; Chief Editor, Down to Earth magazine of science and environment; global campaigner on climate justice</i>
11:45 – 12:00	Discussion
12:00 – 12:30	Communicating Science and Reason in South Asian Societies: The Role of Public Intellectuals Speaker: Dr Pervez Amirali Hoodbhoy, <i>Pakistani nuclear physicist and knowledge-based social activist. Professor, Forman Christian College, Lahore, Pakistan</i>
12:30 – 13:00	Discussion
13:00 – 14:00	Lunch break
Session 3: Communicating science to sceptical or distracted audiences Chairperson- Prof Ranjith Senarathne	
14:00 – 14:30	Science communication case study: Sri Lanka's agricultural scientists engagement with the government on its 'instant organic' drive and chemical fertilizer ban in mid 2021 Speaker: Prof. Buddhi Marambe, <i>Senior Professor, Faculty of Agriculture, University of Peradeniya</i>
14:30 – 14:45	Discussion
14:45 – 15:45	Panel discussion: Scientists using digital media to communicate science and reason directly to the public Panellists <ul style="list-style-type: none">• Dr Asha de Vos, <i>Marine biologist and ocean educator; Founding Executive Director, Oceanswell</i>• Dr Ruchira N. Wijesena, <i>Institute of Technology, University of Moratuwa, Diyagama, Homagama; Presenter of 'Science with Ruchira' YouTube channel</i>• Moderator: Nalaka Gunawardene, <i>Science writer</i>
15:45 – 15:55	Vote of Thanks Prof Ranjith Senarathne, <i>General President-Elect, SLAAS</i>

13th December 2022 (Tuesday)

Time	Section A	Section B	Section C	Section D
08:00 am	<u>101/A</u> Urinary Annexin A3 And Neutrophil Gelatinase-Associated Lipocalin: Potential Diagnostic Biomarkers For Diabetic Nephropathy <i>S. Saseevan, S. Rajapakse and D.N. Magana-Arachchi</i>	<u>201/B</u> Effects of maturity stages on distribution of bioactive compounds and antioxidant activity in different parts of <i>Punica granatum</i> (L.) fruits in four different varieties <i>P. S. I. U. Jayarathne, D. C. Abeysinghe, R. M. Dharmadasa and S. B. A. Weerawarna</i>	<u>301/C</u> Quantitative Characterisation of Fiber Composition Using Thermal Analysis <i>J.M. Dayaratne, and C.L. Kalansooriya</i>	<u>401/D</u> Biophysical characterization of PEG-based extracellular vesicles isolated from tuberculosis patients using Dynamic Light Scattering technique <i>Dhammika Magana-Arachchi</i>
08:15 am	<u>102/A</u> Hepatoprotective potential of the different extracts of <i>Munronia pinnata</i> (Wall) Theob. against carbon tetrachloride-induced hepatotoxicity <i>S.D.Hapuarachchi, T.S. Suresh, W.T.P.S.K. Senarath, S.M. Hadunnetthi, K. Samarasinghe</i>	<u>202/B</u> Bioactive compounds and antioxidant capacity of tender shoots of five tea (<i>Camellia sinensis</i> L.) cultivars grown in three different elevations in Sri Lanka <i>S.A. Wickremeratne, M.M. Nipunika, R.A.A.P. Marapana, D.V.S. Abeysinghe and D.C. Abeysinghe</i>	<u>302/C</u> Investigation of the Feasibility of a Novel Alginate Nanofiber based Antibacterial Wound Dressing <i>N.S.L. Dissanayake</i>	<u>402/D</u> Isolation and evaluation of antibacterial activity of endophytic fungi of <i>Cinnamomum dubium</i> <i>Pamoda Ratnaweera</i>
08:30 am	<u>103/A</u> Evaluation of the impact of nutritional counselling on the nutritional status of post-operative patients with coronary artery bypass graft <i>M.K.D.O. Warunika and A.M.N.T. Adikari</i>	<u>203/B</u> Evaluation of total phenolic, flavonoid contents and antioxidant capacity of three main tea (<i>Camellia sinensis</i>) grades manufactured in seven regions of Sri Lanka <i>P.C.J. Panagoda, R.A.A.P. Marapana, M.M. Nipunika, D.V.S. Abeysinghe and D.C. Abeysinghe</i>	<u>303/C</u> Materials on Board Container Ship MV Xpress Pearl as It Caught Fire and Estimates for Ensuing Emissions to the Atmosphere <i>N.D. Alahakoon, S. Gobishankar, L. Zubair, and A. Mahendran</i>	<u>403/D</u> Salinity tolerance of Aedes sp mosquitoes and its impact on Dengue cases in Batticaloa district. <i>Wijesooriya Arachchilage Don Shashikala Keshani</i>
08:45 am	<u>104/A</u> Investigation of disease presentation in primary and secondary infection of dengue in three clinical settings from 2016-2019 <i>J.A.J.C. Jayarathne, G.K.D.L. Perera, Thusitha P. Muhandiramlage, K.A.D.C. Gunasekara, C.W. Subasinghe</i>	<u>204/B</u> Effect of different processing methods and types of rhizomes of <i>Curcuma longa</i> collected from different agro-ecological regions on content of bioactive compounds and antioxidant capacity <i>M.S.C.J.De Silva, D.C. Abeysinghe and R.M. Dharmadasa</i>	<u>304/C</u> Infiltration and percolation of ephemeral and perennial streams on flood control and groundwater recharge, a case study from Intermediate climate zone, Sri Lanka <i>T. M. C. I. Madhushani, and P. I. A. Gomes</i>	<u>404/D</u> Effects of climatic factors on the larval densities and insecticide susceptibility status of <i>Anopheles subpictus</i> in Hambantota district <i>Thusitha Jayasooriya</i>
09:00 am	<u>105/A</u> Validity of the malnutrition screening tool for surgical patients <i>W.W.L.A.H. Wanigasinghe and A.M.N.T. Adikari</i>	<u>205/B</u> Screening of bee honey collected from different regions in Sri Lanka for phenolic content, antioxidant capacity and physicochemical properties <i>A.S.I. Rajapaksha, D.C. Abeysinghe and R. M. Dharmadasa</i>	<u>305/C</u> Remedial techniques to mitigate hypereutrophic status in Beira lake <i>N.N.N. Attanayaka, W.A.K.S. Fonseka, I.A.S.R. Ilangakoon, S. Himanujahn, M. Vithanage and B.C.L. Athapattu</i>	<u>405/D</u> Tracking the lesser-known migratory routes of <i>Larus heuglini</i> (Heuglin, Æds Gull), from Sri Lanka to the Arctic <i>Sampath Seneviratne</i>

13th December 2022 (Tuesday)

Time	Section E1	Section E2	Section E3	Section F
08:00 am	<u>501/E1</u> Surface enhanced Raman sensing of glucose on electrodeposited cubic-ordered copper thin films <i>L.A.G.D. Jayasekera, K.D.R.N. Kalubowila, J.L.K. Jayasingha, H.H.E. Jayaweera, M.S. Gunewardene, D.P. Dissanayake, J.K.D.S. Jayanetti*</i>	<u>601/E2</u> Metal ion complexation-based detection system for the identification of indoor cigarette smoke using nicotine as the identifier <i>W.M.D.A. Wasalamudali, K.R.R. Mahanama*</i>	<u>701/E3</u> Recognizing the interactions between experience quality, satisfaction, and revisit intentions with respect to five-star hotels in the western province of Sri Lanka <i>Nishadi Rajapakse</i>	<u>801/F</u> The Social Cost of Plastic Pollution: Are We Willing To Pay More for A Cleaner Coastal Line? <i>Menuka Udugama</i>
08:15 am	<u>502/E1</u> Developing high hardness tread compound for the solid tyre via varying the filler content <i>R.K.W.B. Wickramaratna, W. Wasanthi P De Silva*</i>	<u>602/E2</u> A pilot study on heavy metal concentrations in biotic and abiotic elements in rice paddies <i>I.M.A.K. Karunasena, S.M. Vithanarachchi*, M.R. Wijesinghe, R.D. Wijesekera</i>	<u>702/E3</u> Fake News Identification Approaches in Social Media Networks. <i>Hansanie Hathnapitiya</i>	<u>802/F</u> Identifying the determinants of food purchasing habits and their association with diet quality of adults, Å diets <i>Thakshila Adikari</i>
08:30 am	<u>503/E1</u> Investigation of surface wettability of naturally occurring superhydrophobic surfaces across geographical locations in Sri Lanka <i>W.D.G.M. Senarathna*, S. Jayawardhana</i>	<u>603/E2</u> Use of CadC protein of <i>Bacillus</i> species isolated from industrial effluent for biosensor construction <i>T.V.G. Lirushie, D.M.D.C. Dissanayaka, C.D. Wijayarathna*</i>	<u>703/E3</u> Predicting optimal life Insurance Policy Premium <i>Kushan Ranasinghe</i>	<u>803/F</u> The impact of socio-economic factors and consumer behavior on household food waste generation in Kegalle, Sri Lanka <i>Piumi De Abrew Abeyesundara</i>
08:45 am	<u>504/E1</u> Synthesis of <i>n</i> -type Copper(I) Oxide (Cu ₂ O) thin films by the low-temperature thermal oxidization of electroplated Copper (Cu) nanoparticles <i>L.W.P.M. Madusanka, P.K.D.D.P. Pitigala*</i>	<u>604/E2</u> Isolation and characterization of secondary metabolites of <i>Monascus</i> fungi from selected rice varieties in Sri Lanka <i>R.P.T. Madushani, I. Wanninayaka, M.N. Kaumal, C.M. Hettarachchi*</i>	*****	<u>804/F</u> Identifying the consumer, Ås expectations and availability of nutrition information of menu items in food outlets <i>Thakshila Adikari</i>
09:00 am	<u>505/E1</u> Determination of the g-modes of three Delta Scuti variable stars using Kepler data <i>R.D.D. Jayatissa, J. Adassuriya*, M.L.C. Attygalle, K.P.S.C. Jayaratne</i>	<u>605/E2</u> Advancement of a super hydrophobic solution with antibacterial properties <i>M.O. Chamika, V.U. Godakanda, K.M.N. de Silva*, W.R.M. de Silva</i>	*****	<u>805/F</u> Impact of Awareness and Perceived Support on Academic Life Satisfaction: Undergraduates Perspective <i>Susima Weligamage</i>

13th December 2022 (Tuesday)

Time	Section A	Section B	Section C	Section D
09:15 am	Presidential Address - Section F "Sri Lanka's Future: Towards a Blue Economy" <i>- Prof. Wasantha Rathnayake</i>			
10:15 am	Sectional Business Meetings			
11:10 am	Tea Break			
11:30 am	Presidential Address - Section C "Measures to Promote Cycling as a Mode of Micromobility for Short-distance Trips in Sri Lanka" <i>- Dr. Ganga Samarasekara</i>			
12:30 pm	Lunch Break			
01:15 pm	Presidential Address - Section D "Life science, its role and tools for problems at hand" <i>- Dr. K.M.G.P. Premadasa</i>			
02:15 pm	Presidential Address - Section B "Sustainable Postharvest management key to attaining food security" <i>- Dr. R.M.N.A. Wijewardane</i>			
03:15 pm	Tea Break			

13th December 2022 (Tuesday)

Time	Section E1	Section E2	Section E3	Section F
09:15 am	Presidential Address - Section F "Sri Lanka's Future: Towards a Blue Economy" <i>- Prof. Wasantha Rathnayake</i>			
10:15 am	Sectional Business Meetings			
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02:15 pm	Presidential Address - Section B "Sustainable Postharvest management key to attaining food security" <i>- Dr. R.M.N.A. Wijewardane</i>			
03:15 pm	Tea Break			

13th December 2022 (Tuesday)

Time	Section A	Section B	Section C	Section D
03:30 pm	<u>106/A</u> Blood Meal Preferences of <i>Aedes aegypti</i> (Linnaeus) and <i>Ae. albopictus</i> (Skuse) in the District of Colombo <i>E.H.L. Perera, M.D. Hapugoda, T. Ranathunge, L. Udayanga, and Y.I.N.S. Gunawardene</i>	<u>206/B</u> Effect of fermentation temperature and time on bioactive compounds in low country black tea <i>R.A.U.J. Marapana and K.V.K.N. Senadheera</i>	<u>306/C</u> Assessment of Groundwater Vulnerability by DRASTIC-LU, Kala Oya Basin, Sri Lanka <i>S Himanujahn, D.A.N.N. Senadheera, E. A. N. V. Edirisinghe, M.Vithanage and B.C.L.Athapattu</i>	*****
03:45 pm	*****	<u>207/B</u> Minimizing the actual and the potential yield gap of cashew (<i>Anacardium occidentale</i> L): quantifying the organic fertilizer requirement <i>K.C. Guruge and H.M.I.K. Herath</i>	<u>307/C</u> Hydrologic modelling of discontinuous ephemeral streams using HEC-HMS <i>M.D.D. Perera, and P.I.A. Gomes</i>	*****
04:00 pm	*****	<u>208/B</u> Utilization of Sri Lankan rice varieties in developing a value-added rice milk product <i>P. De A. Abeyesundara and P.D.S.A. Goonathilaka</i>	<u>308/C</u> A Study on Evaluating Characteristics of Railway-Roadway Level Crossings to Encounter a Smarter Accident Free Level Crossing System <i>A.H.M.S.P. Abeyrathne and A.G.H.J. Edirisinghe</i>	*****
04:15 pm	*****	<u>209/B</u> Screening of pollens grains in bee honey based on floral sources and its geographic locations in Sri Lanka <i>S.D.T. Mahawela, D.C. Abeyasinghe and R.M. Dharmadasa</i>	(Continued on 14 th Dec 2022)	*****
04:30 pm	*****	<u>210/B</u> Quantification of nitrate and ammonium leaching from chili (<i>Capsicum annuum</i> L.) cultivation under growers' fertilization package in Kalpitiya area <i>D.S.G.G.C. Swarnathilake and H.M.I.K. Herath</i>	*****	*****

13th December 2022 (Tuesday)

Time	Section E1	Section E2	Section E2 (Parallel)	Section F
03:30 pm	506/E1 A correlation study of voice parameters extracted from smartphone and reference microphones in screening for voice disorders <i>Uditha Weerasinghe, Ramal V. Coorey*</i>	606/E2 Plant extract-based synthesis of zinc oxide nanoparticles and investigation of its effect on mosquito larvae <i>M.G.C. Chathurangi, P.V.D.G.N. Silva, S.M. Vithanarachchi*</i>	612/E2 Molecular docking and simulation studies to investigate how bergenin as a flavonoid molecule binds to cyclin-dependent kinase-2 (CDK2) in antitumor treatments <i>P.T. Thusharika, S. Weerasinghe*</i>	806/F Identifying the role of satisfaction in-between experience quality and revisit intention <i>Nishadi Rajapakse</i>
03:45 pm	507/E1 Modeling climate variables in the Colombo city to identify possible near-future impacts of climate change <i>N.K. Kularathne, M.M.P.M. Fernando*</i>	607/E2 Plant extract-based synthesis of zinc oxide and iron oxide nanoparticles and investigation of its antioxidant and anti-diabetic properties <i>D.S. Weerahannedige, P.V.D.G.N. Silva, S.M. Vithanarachchi*</i>	613/E2 Investigation of the antibacterial and anticancer properties of the <i>B. vulgaris</i> var. <i>vittata</i> (golden bamboo) juice <i>S. Jeyaludsumy, N.I. Abeyasinghe, G.N. Silva*</i>	807/F Identification of Extension Needs in Tea Processing: Case of Low Country Factories <i>Kumarasiri Samaraweera</i>
04:00 pm	508/E1 Building on prior knowledge: A focus on teaching Limit of a function <i>D.R.N.N. Rathnayake* and G.N. Jayakody</i>	608/E2 Graphene oxide incorporated electrospun nanofibers for water purification <i>A.G.I.D. Abeywickrama, K.M.N. de Silva, W.R.M. de Silva*, M.S. Fernando, V.U. Godakanda</i>	614/E2 Isolation of endophytic fungi from <i>Wendlandia bicuspidata</i> (Rawana idala) and determination of its antibacterial properties <i>D.J.N. Senevirathna, C.M. Hettiarachchi*</i>	808/F Drying technologies used in dried fish production in Sri Lanka: a review paper <i>Jayasuriya Arachchige Amanda</i>
04:15 pm	509/E1 Identifying posture errors in Kandyan Dancing using Discrete Fourier Transform <i>I.U. Amarawickrama*, D.S. Rodrigo</i>	609/E2 <i>Lactobacillus reuteri</i> incorporated electrospun PEO/sodium alginate polymeric nanofibers as probiotic nutraceuticals <i>W.M. Chathurangi, V.U. Godakanda, W.R.M. de Silva, K.M.N. de Silva*</i>	615/E2 A study on testing authenticated Ayurveda Herbal Formula for antibacterial potentials <i>K.K.N.S. Siriwardhana., R.D.H. Kulatunga, P. Paranagama, C.M. Hettiarachchi*</i>	809/F Gender involvement and contribution for dried fish processing in Negombo <i>Anupama Adikary</i>
04:30 pm	510/E1 Construct an AI based stock market index <i>L.D.S. Dilshan *, E.R.A.D. Bandara</i>	610/E2 Development of graphene oxide-based polymer nanocomposite for water purification <i>M.K. Gunawardana, H.N. Disanayaka, M.S. Fernando, W.R.M. de Silva, K.M.N. de Silva*</i>	616/E2 Biopolymer-based Metatitanic acid composites for water purification <i>N.G.A.A. Lakmal, M.S. Fernando, K.M.N. de Silva, W.R.M. de Silva*</i>	(Continued on 14 th Dec 2022)
04:45 pm	*****	611/E2 Synthesis of graphene and quantum dots from graphite using modified electrochemical exfoliation method <i>H.N. Disanayaka, M.K. Gunawardana, M.S. Fernando, K.M.N. de Silva, W.R.M. de Silva*</i>	617/E2 Development of novel antibacterial food packaging films <i>H.D.C. Nadeesha, K.M.N. de Silva, and W.R.M. de Silva*</i>	*****

14th December 2022 (Wednesday)

Time	Section A	Section B	Section C	Section D
08:00 am	*****	<u>211/B</u> Development of a biodegradable packaging with antimicrobial properties from cassava starch by incorporating <i>Ocimum tenuiflorum</i> (Heen Maduruthala) extract <i>I.A.D.S.R. Gunathilake and M.A.D. Somendrika</i>	<u>309/C</u> Review on the Unification of the Vertical Datum in Sri Lanka <i>K.P. Manuranga, H.M.I. Prasanna and A.H. Lakmal</i>	*****
08:15 am	*****	<u>212/B</u> Formulation of a curry powder enriched with bioactive compounds and micronutrients <i>Jayada Gallege and M.A.J. Wansapala</i>	<u>310/C</u> Comparison of Different Height Systems over a Local Area in Sri Lanka <i>W.M.N.B. Weerasooriya, and H.M.I. Prasanna</i>	*****
08:30 am	*****	<u>213/B</u> Enhancement of protein content and physiochemical properties of crackers by incorporation of <i>Gracilaria verrucosa</i> (Red algae) harvested from Trincomalee in Sri Lanka <i>R.M.J N. Samarathunga, I. Wijesekara and M.A. Jayasinghe</i>	<u>311/C</u> Rapid Identification of Physical Properties of Beaches <i>E.M.M.W.C.U. Rathnayake, and R.S.M. Samerasekara</i>	*****
08:45 am	*****	<u>214/B</u> Use of native plants in residential landscaping: perceptions of urban residents in the Colombo District <i>J.K.W.N. Subashini, K. Yakandawala and E.S. Minor</i>	<u>312/C</u> Strength Improvement of Soft Soil Mixed with Plastic Chips and Cement <i>E.M.K.G.A.D.B. Ekanayake, and W.M.N.R. Weerakoon</i>	*****
09:00 am	*****	*****	*****	*****
09:15 am	*****	*****	*****	*****

14th December 2022 (Wednesday)

Time	Section E1	Section E2	Section E2 (Parallel)	Section F
08:00 am	*****	618 HPLC method development for the analysis of amino acids in animal feed samples using o-phthalaldehyde (OPA) and 9-fluoronylmethyl-chloroformate (9-FMOC-Cl) <i>D.Y. Mallikarachchi*, J.K. Walpita, N.M.S. Sirimuthu</i>	624/E2 FTIR based detection of dicyandiamide in dairy products <i>B.S.W. Karunaratna*, M.A.B. Prashantha, N.G.D.D. Nanayakkara, D.C.K.K. Dissanayake</i>	*****
08:15 am	*****	619 Evaluation of urease inhibitory activity of <i>Terminalia catappa</i> leaf extracts <i>D.N. Udukala*, S.A.R. Waidyalankara</i>	625/E2 Synthesis and characterization of ethylenediamine sulfonamide derivatized zinc and platinum complexes towards fluorescence imaging applications <i>D.H.S. Witharana, N.T. Perera*</i>	*****
08:30 am	*****	620 Evaluation of urease inhibitory activity of <i>Costus speciosus</i> leaves <i>K.U.S. Perera, D.N. Udukala*</i>	626/E2 Synthesis and characterization of novel copper dipicolylamine sulfonamide complexes toward possible biological applications <i>B.D.T. Hansini, N.T. Perera*</i>	810/F An appraisal on patient, Æs self- rule in light of medical informed consent law <i>Ayodhya Prabhashini Rathnayake</i>
08:45 am	*****	621 Colon specific drug delivery of diclofenac sodium using Eudragit coated polyvinylpyrrolidone mixed chitosan microparticles <i>W.R.M. de Silva, K.M.N. de Silva, U. Godakanda, I.S. Wickramasinghe*</i>	627/E2 Microwave-assisted synthesis of silica-supported indole-derived fluorometric chemosensor for the detection of Fe ³⁺ ions <i>A.U.T. De Silva, K.G.U.R. Kumarasinghe*</i>	811/F Do vaccine mandates sabotage the human physical integrity? A legal analysis <i>Ayodhya Prabhashini Rathnayake</i>
09:00 am	*****	622 Mathematical modeling of recombinant DNA expression <i>M.M.A. Aqeel, S.P. Rajapaksha*</i>	628/E2 Amine functionalized mesoporous silica nanoparticles incorporated electrospun cellulose acetate nanofibers for effective removal of CaCO ₃ in drinking water <i>S.H. Kumara, I. Munaweera*</i>	*****
09:15 am	*****	623 Use of concentrated solar radiation for the removal of Aflatoxin in coconut oil and assessment of compositional quality parameters after the treatment <i>M.P.G. Vanniarachchy*, B.V.T. Kasun</i>	629/E2 Synthesis, characterization and release kinetics of antibiotic-loaded mesoporous silica nanoparticles <i>V.V.R.P. Subasingha, L. Wijenayaka, M.D.J. Wijayabandara, R.K. Dissanayake*</i>	*****

14th December 2022 (Wednesday)

Time	Section A	Section B	Section C	Section D
09:45 am	Presidential Address - Section E3 “Ethics in the Metaverse” <i>- Dr. Rasika Dayarathna</i>			
10:45 am	Tea Break			
11:15 am	Presidential Address - Section E2 “The Pursuit of Controlling Matter at the ‘Nanoscale’: Perspective of Materials Chemistry” <i>- Dr. Lahiru Wijenayaka</i>			
12:15 pm	Lunch Break			
01:15 pm	Presidential Address - Section A “Research Advances and Opportunities in the Field of Gynaecology” <i>- Dr. Kaumadi Karunagoda</i>			
02:15 pm	Presidential Address - Section E1 “Trends in Superconductivity; Marvel Materials in the Odyssey to Room Temperature Superconductors” <i>- Dr. W. Wasanthi P. De Silva</i>			
03:15 pm	Tea Break			

14th December 2022 (Wednesday)

Time	Section E1	Section E2	Section E3	Section F
09:45 am	Presidential Address - Section E3 “Ethics in the Metaverse” <i>- Dr. Rasika Dayarathna</i>			
10:45 am	Tea Break			
11:15 am	Presidential Address - Section E2 “The Pursuit of Controlling Matter at the ‘Nanoscale’: Perspective of Materials Chemistry” <i>- Dr. Lahiru Wijenayaka</i>			
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01:15 pm	Presidential Address - Section A “Research Advances and Opportunities in the Field of Gynaecology” <i>- Dr. Kaumadi Karunagoda</i>			
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03:15 pm	Tea Break			

14th December 2022 (Wednesday)

Time	Section A	Section B	Section C	Section D
03:30 pm	*****	*****	*****	*****
03:45 pm	*****	*****	*****	*****
04:00 pm	*****	*****	*****	*****
04:15 pm	*****	*****	*****	*****
04:30 pm	*****	*****	*****	*****
04:45 pm	*****	*****	*****	*****

14th December 2022 (Wednesday)

Time	Section E1	Section E2	Section E3	Section F
03:30 pm	*****	630/E2 Bioactivity directed isolation of a rare phytosterol, stigmast-5-en-3 β ,7 α ,22 α -triol from <i>Leea indica</i> . (Burm.f.) Merr. with wound healing potential <i>W.M.P. Samarasinghe, C. Ranasinghe, K.H. Jayawardana, S. Somaratne, G.M.K.B. Gunaherath*</i>	*****	*****
03:45 pm	*****	631/E2 Isolation and structure characterization of a hypoglycemic active flavone glycoside from Sri Lankan green leafy vegetable <i>Oxalys zeylanica</i> (Malla) <i>M.G.A.N. Perera*, N.G.D. Anuradha, S.M.D.S. Gayathri, A.W.P. Rasangani, P.G.I. Dias, R. Sabaragamuwa, T.C. Kananke, R.M.K.T. Rathnayaka, M.N. Wickramaratne, R.M.U.S.K. Rathnayake</i>	*****	*****
04:00 pm	*****	632/E2 Study on the Variation of Volatile Flavor Compounds of Black Tea during the Fermentation Process <i>S.T.N. Yasaswin, K.G.N. Piyasena, L.S.K. Hettiarachchi, D.D.C. de S. Wanniarachchi*</i>	*****	*****
04:15 pm	*****	633/E2 Assessment of Formaldehyde Contents of Selected Fish Species Harvested by Multi-day Boats in Mirissa, Kudawella and Tangalle Fishery Harbors in Sri Lanka <i>S.M.M.R. Bandara, G.S.A. Senanayake*, K.W.S. Ariyawansa, M.G.C.R. Wijesinghe, M.M. Subasinghe</i>	*****	*****
04:30 pm	*****	634/E2 Occurrence of trans fatty acid positional isomers in commercially available plant oils and oil-based products in Sri Lanka <i>W.I.M. De Silva, H.P.S. Senarath*</i>	*****	*****
04:45 pm	*****	635/E2 Quantitative analysis of microplastics content in Sri Lankan sea salts <i>A.P.W. Sulochana, C.W. Subasinghe, K.M.T.D. Gunasekera*</i>	*****	*****

Poster Presentations 13th & 14th December 2022

Section A

901/A	A review of pharmacological actions of medicinal plants as A polyherbal formulation – Agraraja Kwatha <i>Senaratna S.M.D.N.P. *, and Karunarathne Y.A.U.D.</i>
902/A	The development of an educational e- resource including dietary menus for adults with Coronary Artery Disease (CAD) and adults at risk of CAD <i>K.D.S.P.N. Kathriarachchi and A.M.N.T. Adikari*</i>
903/A	Pharmacological effects of <i>Sesamum indicum</i> ; Systematic review <i>S.H.K. Deepthika, K.P.K.R. Karunagoda, and P.K. Perera</i>
904/A	Methylenetetrahydrofolate Reductase Gene Polymorphisms and Its Implication in Various Health Conditions: A Review <i>A. Chandrasekaran and G.H.R.E. Karunaratne</i>
905/A	Antidiabetic potency of family Aristolochiaceae; A review <i>K.H.R.L.G. Piyathilaka and G.H.R Eranga Karunaratne</i>
906/A	Risk factors of central obesity and the percentage of central obesity among myocardial infarction patients with normal body mass index <i>G.G.P.S. Rathnasiri and A.M.N.T. Adrikari</i>
Section B	
907/B	Determining the level of perceived experience quality by the international visitors coming to five-star hotels in the western province of Sri Lanka <i>N. Rajapakshe</i>

Section B (Continued..)

908/B	Antioxidant capacity, chemical constituents and essential oil content in different parts of <i>Alpinia galanga</i> Willd and <i>Alpinia calcarata</i> Roscoe <i>N. Bista , D.C. Abeysinghe, R.M. Dharmadasa and I.J. Amadoru</i>
909/B	Identification of the adaptable Beet (<i>Beta vulgaris</i>) varieties for reduced Nitrogen under in vitro condition <i>A.S. Jathunarachchi, B.U.C. Batangala, D R. Gimhani and P.I.P. Perera</i>
910/B	Effect of selected probiotic strains in fermentation stage on bioactive properties of low country black tea <i>H. S. Liyanage and R. A. U. J. Marapana</i>
911/B	Effect of stabilization thermal treatments on extractability, oxidative stability and antioxidant activity of rice bran oil of the variety “Ld 368” <i>D.S.U. Aluthge and K.K.D.S. Ranaweera</i>
912/B	Development of pasteurized grain-milk beverage & evaluation of physico-chemical and sensory properties <i>L.A. Wickramarachchi , H.M.T. Herath, D.U. Rajawardene and M. Jayasinghe</i>
913/B	Adopting a low-cost sterilization method for in vitro clonal multiplication of Turmeric (<i>Curcuma longa</i>) <i>A.G.B. Aruggoda and H.G.A. Kumudumali</i>
914/B	Impact by value-added coconut (<i>Cocos nucifera</i> L.) jaggery on their Glycemic Indices <i>H.P.D.T. Hewa Pathirana, I. Wijesekara , L.L.W.C. Yalagama and M.A. Jayasinghe</i>
915/B	Development of concentrated herbal tea based on refuse tea, BOPF, and dust 2 tea grades incorporated with <i>Pimenta dioica</i> (Allspice), <i>Mentha spicata</i> (Mint), and <i>Zingiber officinale</i> (Ginger) <i>R.M. Dharmadasa and B.P.A. Imesha</i>

Poster Presentations 13th & 14th December 2022

Section D

916/D	Characterization and validation of kerosene degradation potential of selected bacterial isolates from petroleum contaminated soil samples in Sri Lanka <i>Ayuni Weerakoon</i>
917/D	Impact of COVID-19 lockdown on the prevalence of dengue and bionomics of dengue vectors in Kalutara district, Sri Lanka <i>Thusitha Jayasooriya</i>
918/D	Preliminary survey on the gastrointestinal parasites of migratory water birds in Mannar, Sri Lanka <i>Inoka Perera</i>
919/D	Preliminary screening of orthopoxvirus antibodies in three species of rodents in Sri Lanka <i>Inoka Perera</i>
920/D	Determination of metal binding domains of CadC protein from <i>Bacillus megaterium</i> TWSL_4 <i>Champika Wijayarathna</i>

Section E1 and Section E2

921/E1	Investigation of the latex film formation process by atomic force microscopy <i>P.K.D.D.P. Pitigala, S.D.A.I. Kumari*</i>
922/E1	Impact of COVID-19 lockdown and Influence of local wind profile on air quality in Colombo <i>Piushani Ellegala*, L.D. Jayasuriya</i>
923/E2	Construct design for CRISPR/Cas9-mediated K/O of the allosteric activator binding domain of PFK-1 in MCF-7 cells and the assessment of its transfection efficiency for the development of a novel therapeutic approach for cancer <i>W.M.S. Hansika, G.N. Silva*</i>

Section E2

924/E2	Development of a fluoride riboswitch-based biosensor to detect fluoride concentration in drinking water <i>L.N.A.J.P. Nissanka, E.K.D. Abeyrathne, M. Satharasinghe, P. Banushan, G.N. Silva*</i>
925/E2	Value addition to cassava bagasse; Development of cassava bagasse incorporated vanilla flavored cookie with high consumer acceptance <i>M.K.H. Lakmini, M.A.D. Somendrika*</i>
926/E2	Determination of heavy metals and sodium laureth sulphate in selected herbal hair shampoo commercially available in Sri Lanka <i>P.V.M.M. Perera, B.A. Perera*</i>
927/E2	Enhanced removal of heavy metals in wastewater using amino mesoporous silica nanoparticles <i>A. Pathiraja, S.H. Kumarage, I. Munaweera*</i>
928/E2	Fabrication and characterization of N, P, K nutrient-loaded electrospun cellulose acetate nanofiber mats to be used as a slow-release fertilizer <i>W.A.M.B. Fernando, I. Munaweera*</i>
929/E2	Comparative study on the Rhodamine B removal ability of CuO and CaO nanoparticles synthesized using plant extracts <i>A.A.B.S. Wijeratne, S.M. Vithanarachchi*</i>
930/E2	Development of ZnO and Fe ₃ O ₄ nanoparticles incorporated antibacterial polymer film for dermal applications <i>W.T.D.D. Fernando, K.M.N. de Silva, W.R.M. de Silva*</i>
931/E2	Stability of <i>Cinnamomum zeylanicum</i> "Sri Vijaya" aqueous extract and chemical analysis of its residue <i>B.M. Jayawardena*, B.S. Wannaiarachchi</i>
932/E2	Photodegradation study of crocetin, an apo-carotenoid extracted from the stigma of saffron flower (<i>Crocus sativus</i> L.) <i>R.M.T.N. Perera, D.D.D.H. Alwis*</i>

PRESIDENTIAL ADDRESSES

Venue: Chemistry Lecture Theatre (CLT) – 1st Floor, Faculty of Science, University of Colombo

- Section A:**
14th December 2022 @ 01.15 p.m. : **"Research Advances and Opportunities in the Field of Gynaecology"**
- Dr Kaumadi Karunagoda
- Section B:**
13th December 2022 @ 02.15 p.m. : **"Sustainable Postharvest management key to attaining food security"**
- Dr. R.M.N.A. Wijewardane
- Section C:**
13th December 2022 @ 11.30 a.m. : **"Measures to Promote Cycling as a Mode of Micromobility for Short-distance Trips in Sri Lanka"**
- Dr. Ganga Samarasekara
- Section D:**
13th December 2022 @ 01.15 p.m. : **"Life science, its role and tools for problems at hand"**
- Dr. K.M.G.P. Premadasa
- Section E1:**
14th December 2022 @ 02.15 p.m. : **"Trends in Superconductivity; Marvel Materials in the Odyssey to Room Temperature Superconductors"**
- Dr W. Wasanthi P. De Silva
- Section E2:**
14th December 2022 @ 11.15 a.m. : **"The Pursuit of Controlling Matter at the 'Nanoscale': Perspective of Materials Chemistry"**
- Dr. Lahiru Wijenayaka
- Section E3:**
14th December 2022 @ 09.45 a.m. : **"Ethics in the Metaverse"**
- Dr Rasika Dayarathna
- Section F:**
13th December 2022 @ 09.15 a.m. : **"Sri Lanka's Future: Towards a Blue Economy"**
- Prof. Wasantha Rathnayake

Science and Technology Advisory Committee. SLAAS

A Mini Symposium on Energy Crisis: Is it local or global?

Date: Thursday, 15th December 2022 09:00 am to 12:00 noon

Venue: Chemistry Lecture Theatre (CLT), Faculty of Science, University of Colombo

09:30 am – 09:40 am **Opening Remarks**

Prof. Manuj Weerasinghe
Chairman, Science and Technology Advisory Committee, SLAAS.
General President, SLAAS

09:45 am – 11:30 am **Panel Discussion**

Dr. Tilak Siyambalapitiya
Dr. Thusitha Sugathapala
Dr. Priyantha Wijayatunga
Eng. Harsha Wickramasinghe
Eng. Lakshitha Weerasinghe

Moderator

Prof. Sumedha Jayanetti
Immediate Past General President, SLAAS

11:30 am – 11:35 am **Vote of Thanks**

11.35 am – 12:00 nn **Poster session by Master's Students**

Science Education Committee, SLAAS

A Mini Symposium on School Education in Sri Lanka – are we on the right track?

Date: Thursday, 15th December 2022 02:00 pm to 05:00 pm

Venue: Chemistry Lecture Theatre (CLT), Faculty of Science, University of Colombo

02:00 pm – 02:10 pm **Opening Remarks**, Prof. R. D. Wijsekera, Chairperson, SEC

02.15 pm – 02.35 pm **Cross Sectional Study on School Science Education**

Prof. Udeni Nawagamuwa,
Faculty of Engineering, University of Moratuwa
Dr. Lochandaka Ranatunga,
Faculty of Information Technology, University of Moratuwa

02.40 pm – 03.00 pm **Lessons from other Countries**

Dr. R. D. Guneratne,
University of Colombo (retired)

03.05 pm – 03.25 pm **Recommendations by SLAAS**

Prof. Sumedha Jayanetti
Dean, Faculty of Technology, University of Colombo

03.30 pm – 05.00 pm **Panel Discussion - Moderated by**

Prof. Jayantha Wijeyaratne,
*Professor Emeritus, Department of Zoology & Environmental
Management & Former Vice Chancellor, University of Kelaniya*

Panelists:

Prof. Manuj Weerasinghe,
Prof. Chandana Jayaratne,
Prof. Devaka Weerakoon

05.00 pm – 05.05 pm **Vote of Thanks**
Prof. Aashani Tillekaratne, Secretary, SEC

05.10 pm – 05.30 pm **Refreshments**



Venues of the Annual Sessions of SLAAS



Science Faculty Map

- | | |
|---|--|
| 1. Student Service Centre (Upcoming) | 13. Dean's Office, Faculty of Science |
| 2. Department of Nuclear Science | 14. King George's (KG) Hall |
| 3. Department of Statistics (New Building) | 15. New IS & MF Laboratory |
| 4. Climate Change Research Laboratory | 16. Department of Physics (PLR II / PLR III / NPLT) |
| 5. Department of Plant Science (NBLT) | 17. Department of Mathematics (C22) |
| 6. Department of Zoology & Environmental Science (ZSR) | 18. Department of Statistics |
| 7. Chemistry & Physics Lecture Theatres (CLT/NLT/PLT) | 19. New Arts Theatre |
| 8. Department of Chemistry | 20. Prof. V.K. Samaranayake Memorial Auditorium |
| 9. Tissue Culture Building / ITSC | 21. University of Colombo School of Computing (UCSC) |
| 10. Information & Learning Centre (ILC), Faculty of Science | 22. Marshal's Office |
| 11. National History Museum | 23. Medical Centre |
| 12. Dean's Office, Faculty of Science | |

SLAAS Venues

SLAAS Office

Department of Physics Lobby (Ground Floor) 16

Theme Seminar

Information & Learning Centre (ILC) Auditorium 10

Sectional Venues and Business Meetings

Section A: Chemistry Lecture Theatre (CLT) 1st Floor 07

Section B: Department of Mathematics, Ground Floor 17

Section C: Department of Mathematics, Ground Floor 17

Section D: Biology Lecture Theatre (BLT)3,, Ground Floor 06

Section E1: Physics Lecture Room (PLR3), 2nd Floor 16

Section E2: New Chemistry Lecture Theatre, Ground Floor 08

Section E2: Chemistry Seminar Room, 1st Floor 08

Section E3: New Physics Lecture Theatre, 3rd Floor 16

Section F: Department of Mathematics, Ground Floor 17

Poster Presentations

Information & Learning Centre (ILC) Ground Floor 10

Presidential Addresses

Chemistry Lecture Theatre (CLT), First Floor 07

Mini Symposium

Chemistry Lecture Theatre (CLT), First Floor 07

Young Inventors' Exhibition

Department of Physics 16

Rest Room for SLAAS Guests

Department of Physics, Ground Floor 16

Parallel Activities

Chemical Magic Show - Department of Chemistry 08

Holography - Astronomy - Department of Physics 16

Planetarium Visit - Department of Physics 16

Museum Visit - Department of Zoology 06

Refreshments (Morning and Evening)

Information & Learning Centre (ILC), Ground Floor 10