

# **SLAAS NEWS**

Newsletter of the Sri Lanka Association for the Advancement of Science



# 78<sup>th</sup> SLAAS Annual Sessions December 2022 'Effective Science Communication for an Informed Society'



The 78th Annual Sessions of SLAAS under the theme "Effective Science Communication for an Informed Society" will be held from 11th to 16th December 2022 at the University of Colombo. This year's Annual Sessions offers an opportunity to communicate scientific discoveries from all over the island in one platform to the scientific community and to the general public.

The ceremonial inauguration of the Annual Sessions will take place on  $11^{\rm th}$  December 2022 at the Faculty of Medicine, University of Colombo.

Theme seminar will be held at the Faculty of Science, University of Colombo on 12th December with the participation of national and international eminent scientists and communicators; Professor S W Kotagama (Professor Emeritus, Department of Zoology and Environment Sciences, University of Colombo), Professor Ajith de Alwis (Senior Professor, Department of Chemical and Process Engineering, University of Moratuwa), Ms. Sunita Narain (Director General, Centre for Science and Environment (CSE), India), Dr. Pervez Amirali Hoodbhoy (Professor, Forman Christian College, Lahore, Pakistan), and Professor Buddhi Marambe (Senior Professor, Faculty of Agriculture, University of Peradeniya). A panel discussion on "Scientists using digital media to communicate science to the public" will be held with the participation of Dr. Ruchira N Wijesena (Institute of Technology, University of Moratuwa, Homagama and the presenter of 'Science with Ruchira' YouTube channel) and Dr. Asha de Vos, (Marine Biologist, Ocean Educator and Founding Executive Director Oceanswell). This discussion will be moderated by an eminent science writer Mr. Nalaka Gunawardene.

Two mini-symposia to share facts and discuss the necessary resolutions on two timely topics will be held on

 $15^{th}$  December, entitled "Energy Crisis-Is it local or global?" and "School Education in Sri Lanka-are we on the right track?".

"School Inventor's Exhibition" to showcase the new inventions by school children will also be held at the Faculty of Science, University of Colombo on 14<sup>th</sup> and 15<sup>th</sup> December as part of the Annual Sessions.

# Sri Lanka Association for the Advancement of Science The me Seminar SLAAS Annual Sessions 2022 "Effective Science Communication for an Informad Society" Verue: Infomation & Learning Centre Auditorium (IC) foculty of Science, University of Common December 12, 2022 from 8.00 am – 4.00 pm Effective Science Communication to the Public Perfector Territorium (IC) foculty of Science, University of Common December 12, 2022 from 8.00 am – 4.00 pm Effective Science Communication in Not unique inscription of the Information of Information Infor

#### Inside this issue

Section A2
Section B3
Section D4
Section E16
Section E2 8
Section E311
Section F12
General Research Committee12
Science Education Committee13
Committee for Popularization of Science14

78th Annual Sessions of SLAAS 1

#### Special points of interest

- The Little Forester Programme
- 'Sri Lankan Chemists in Focus' webinar series
- Inter-University and Inter -School Competitions
- How to select a University Degree Program to match your aspiration?
- Science Promotional Programs for School Children

78<sup>th</sup> SLAAS Annual Sessions Programme at a Glance

https://www.slaas.lk/images/ annual\_sessions/Glance\_p/ UP\_ConciseGlanceprogramme

# **Section A**

#### Workshops

A programme carried out in collaboration with the Colombo Medical Faculty Student Research Community on "Conducting an Effective Oral/Poster Presentation" was held on  $26^{th}$  of August.

An onsite workshop on Research Methodology for Level IV undergraduates at the Institute of Indigenous Medicine, Rajagiriya was conducted from  $16^{th}$  September to  $22^{nd}$  September. It was conducted as four sessions.

A programme to share best practices in the Health Sector was held on the  $18^{th}$  of August and a workshop on "Green Procurement Methodologies" was held for the Health Sector on the  $6^{th}$  of September.

Oral health screening programmes were carried out in 7 pre-schools in Kaluthara district during the period of 26<sup>th</sup> to 30<sup>th</sup> September. Around 200 children were screened and oral health education was given.







# **Section B**

#### Webinars

A webinar on "Nanotechnology in Drug Delivery and Tissue Engineering" was held on 5th of September, 2022. Vice president of section B, Dr. R.P. Wanigathunga and the section B committee member, Dr. H.M. Herath were the coordinators

of this webinar, and the resource person of this program was Mr. Kosala Dinuk Waduthanthri who is currently reading for his PhD at the Department of Chemicals and Materials Engineering and Department of Surgery, University of Alberta, Canada. The webinar was opened for the undergraduates, graduates and postgraduate students and for any party interested in nanotechnology. The program was held successfully and received many good comments.

Section B conducted another webinar entitled "Ornamental Fish Industry: Prospects for a

**Better Future**". This webinar was held on 6<sup>th</sup> of October, 2022. Section B rapporteur, Dr. A.A.D. Amarathunge coor dinated the webinar, and the resource person of the webi nar was Prof. C.N. Walpita who is the professor in Aqua cul ture, Department of Livestock Production, Faculty of Agri culture, Sabaragamuwa University of Sri Lanka. During the workshop, Prof. C.N. Walpita discussed in detail about set guidelines as the way forward for the local ornamental fish industry. The webinar was opened for any party who is in terested in ornamental fish and the program was suc cessfully held with the participation of quite a good number of participants.



#### The Little Forester Programme

Section B with the collaboration of State Timber Corporation (STC), organized the 'Little Forester Programme'. The programme was coordinated by the section B committee member, Mr. W.V.T.D. Amarasinghe. This program is a tree planting programme, specially targeted to primary grade school children, and the first tree planting event of this program was held in Weerasuriyakanda Kanishta Vidyalaya, Wewaldeniya on 29th September, 2022. Students of the school's Environment Group participated for the event and the students planted four forest species (Hora, Nadun, Pelen, and Waldel) of plants within the school premises. For the better identification, the plants were also provided with relevant identification name boards. During the program, apart from the planting materials and the name boards, a set of agricultural equipment and a collection of STC publications were also distributed among the students.

Along with the students, the school principal and few teachers of the primary section also participated in the event, and they also actively engaged with students in this. Regional officers of STC and the Forest Department also participated to this tree planting programme. Mr. W.V.T.D. Amarasinghe conducted the event, and during the program he explained the students about the timely need of involvement of younger generation in planting trees and protecting the environment.





#### **Paper Articles**

Section B committee member, Dr. H.M. Herath published a paper article in the 'Vidusara' science magazine. The article was about the usage of double-stranded RNA against pest controlling as an environmental friendly approach and it was written in Sinhala. The paper article was published in the Vidusara magazine released on 7th September, 2022, and the article was given on the 14th page under the agriculture section of the magazine.



# **Section D**

#### Webinars

Prof. Meththika Vithanage from the University of Sri Jayewardenepura conducted a webinar on "Microplastics in soil" on Thursday the 24<sup>th</sup> of June *via* Zoom. There were 54 participants. This event was organized and coordinated by Dr. Rinukshi Wimlasekkara of SLAAS Section D.

A webinar entitled "Fungal taxonomy in the modern era" was conducted by Dr. Rajeshkumar KC from the National Fungal Culture Collection of India (NFCCI) B & P (Fungi) Group, MACS Agharkar Research Institute, Pune, Maharashtra, India on the 29<sup>th</sup> of October 2022. There were over hundred participants including a large number of international attendees.



#### **Traveling Exhibition**

A travelling Exhibition organized by the undergraduates of the Faculty of Technology was held on the 30th of June 2022. The objective of this exhibition was bi-fold; it was organized to provide a platform for undergraduates to showcase their talents while popularizing the technology stream among school children and parents. Students, academics, industry personnel, school children teachers, and parents attended the exhibition. This event was organized and coordinated by Dr. Prasanna Premadasa of SLAAS Section D.



An exhibition was organized by the Sri Lanka National Chapter of the Organization for Women in Science for the Developing World. Students showcased their innovations at the "Exhibition of Innovations" held on 14<sup>th</sup> October at the Faculty of Science of the University of Sri Jayewardenepura. Members of the academic staff of the University of Sri Jayewardenepura, students, school children and parents of the students participated at the event. The travelling exhibition event was coordinated by Dr. Hiruni Harischandra and Dr. KMGP Premadasa.



#### **Donations**

A/L Technology stream textbooks were donated to St. Clares Balika Maha Vidyalaya, Wellawatte as part of the book donation program to help the GCE (A/L) Technology stream students. The event was held on 5th September 2022, on the premises of the school. The book donation campaign also aimed at increasing female students' involvement in technology education. The activity was organized and coordinated by Dr. K M G P Premadasa of Section D. Another set of A/L technology stream textbooks were donated to Katukurunda Dharmapala Vidyalaya, Kalutara on 6th October 2022. The book donation campaign aims to popularize the Technology A/L stream among students while supporting schools with fewer resources. Dr. K M G P Premadasa organized the campaign and spoke to the A/L students gathered at the school auditorium.





#### Website on Careers and Scholarships in Science

A website on 'Careers and Scholarships in Science' was developed by Ms. Piyumi Rasangani, an undergraduate student of the Genetics and Molecular Biology Unit, Faculty of Applied Sciences of the University of Sri Jayewardenepura under the guidance of Dr. Hiruni Harischandra and Dr. Sameera Ariyawansa of SLAAS Section D. The objective of this website was to create a platform which links all available resources, maximizing the chances for a graduate in the field of Science to find the best fit for his or her interests and qualifications.



# **Section E1**

#### Webinars and On-line Panel Discussions

The July webinar entitled "Atmospheric Pressure Plasma and its Applicability", was conducted by Dr. W. T. Leon S. Fernando, Department of Physical Sciences and Technology, Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka. The event was coordinated by Dr. Wasanthi De Silva.

A virtual panel discussion on 'Higher Education to Build a Promising Career' was jointly organized by the Department of Mathematics, University of Kelaniya and SLAAS Section E1 in July with the contribution of three panelists, Dr. Thakshika Rupasinghe, Dr. S. V. A. Almeida, and Dr. Thilini Mahanama, from academia as well as industry. The discussion consisted of 160 active participants and the target group was physical science undergraduates. The purpose of the virtual session was to discuss on why higher education is important to build a promising career in academia or industry. Hence, the goal of the discussion was to motivate the students to pursue higher education by focusing on our own experiences. To achieve the afore-mentioned goal, the session was conducted in three parts. The first part of the session discussed the specific long-time goals that the students should build up and the way they should achieve these long-time goals focusing on the process of applying for higher education. Thereafter, the panelists explained the importance of working independently and finally discussed the career opportunities. The event was coordinated by Dr. Sujeewa Wijesiri.

A two-day online panel discussion, **Guidex 2022**, targeting undergraduate students, was held on 20th and 21st August 2022. The titles of the discussions were 'Electronics in day-to-day life' and 'Introduction to electronics medical instruments and devices'. The resource persons were Dr. Aruna Ranaweera, Department of Physics & Electronics, University of Kelaniya, Mr. Ranjan Kulathunga, Senior Design Engineer (Embedded systems) Zone 24×7, Dr. Indika Wanniarachchi, Senior Lecturer, University of Sri Jayawardenepura, Dr. Wasanthi De Silva, Senior Lecturer, University of Sri Jayawardenepura, Dr. Sajitha Dasanayaka, Modality Service Manager, DIMO Pvt Ltd and Mr. Dilan A. Fernando, Senior Medical Physicist, Asiri AOI Cancer Centre Pvt Ltd. The activity was jointly organized by the Electronics & Embedded System students, Department of Physics and SLAAS Section E1. The event was coordinated by Dr. W.K.I Wanniarachchi.

An online webinar on "Learn and Earn from E-waste" was held on the 22nd of September 2022 in collaboration with the Physics Society University of Sri Jayewardenepura. The resource person was Dr. Jehan Seneviratne from the Department of Physics and Electronics, who is a member of the Electronics Development and Innovation Centre (EDIC) of the Department of Physics and Electronics, and a member of the Centre for Sustainability Solutions, University of Kelaniya. The im-





Atmospheric Pressure Plasma

and it's Applicability

**7<sup>th</sup> of July 2022** 

8.00 PM

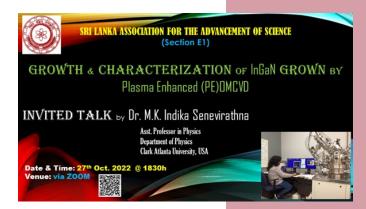
Via zoom

eting ID: 622 5750 168

Prof. Michael D. Williams, department of Physics, Clark Atlanta University, USA shared his research finding on "Ultraviolet Photoemission Study of Field Effects Iron Chloride Interacted Multilayer Epitaxial Graphene". The webinar was held on the 17th November 2022 at 6:30 pm in collaboration with the Physics Society, University of Colombo. Prof. P K D D P Pitigala coordinated the webinar.

The October webinar titled "Growth & Characterization of InGaN Grown by Plasma Enhanced (PE)OMCVD " was conducted by Dr. M.K. Indika Senevirathna, Asst. Professor in Physics, Department of Physics, Clark Atlanta University, USA. Plasma

Enhanced Metal Organic Chemical Vapor Deposition (PEMOCVD) is a novel and yet developing method of semiconductor thin film growth. In this talk, the results on the structural and optoelectronic properties of InGaN layers grown on AlN/sapphire templates by PEMOCVD were discussed. *Ex-situ* analysis of the deposited structures, Raman, AFM, and FTIR reflectance spectroscopy and the structural and optoelectronic properties, free carrier concentrations and mobility, and the effects on high frequency dielectric function were also presented and discussed along with the ability of improving InGaN properties using PEMOCVD. The webinar was coordinated by Prof. P K D D P Pitigala.



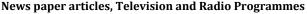
#### Workshops

One-day workshop on **Applied Machine Learning** was held as a fundraising event in August at the Blended Learning Center, University of Sri Jayewardenepura. Dr. Ravimal Bandara of the Department of Computer Science, University of Sri Jayewardenepura.

enepura conducted the workshop. The workshop targeted senior undergraduates, postgraduates, and work force from industry. Dr. Indika Wanniarachci and Dr. Wasanthi De Silva coordinated the workshop.

A Teacher Training Workshop Series for Combined Mathematics teachers was organized by SLAAS Section E1 in collaboration with the CPS and with the assistance of the Mathematics Branch of the Ministry of Education. Three workshops in North Central Province, Southern province and Western province were successfully held in June, September and November, respectively. Dr. Shelton Perera and Dr. Gaya Jayakody were the resource per-

sons for the workshops. Dr. Sujeewa Wijesiri and Dr. Rajitha De Silva coordinated the workshop series.



Mr. Gihan Weerasekara was the resource person for "Vidu Asin" program and he discussed the Dart mission and its importance for planetary defense as well as the new moon mission Artemis, which will take humans back to the moon in the near future. That was broadcasted on the  $6^{\rm th}$  and  $13^{\rm th}$  October 2022.

Online article authored by Dr. Chinthaka De Silva, Senior Research Scientist, ITI on 'පෑස්සුම විදහාව හා දේශීය වාවසායකක්වයේ ලොප්වීම' can be found at https://newswave.lk/36622/



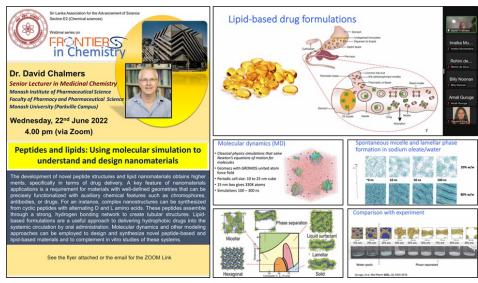
# **Section E2**

#### Webinars

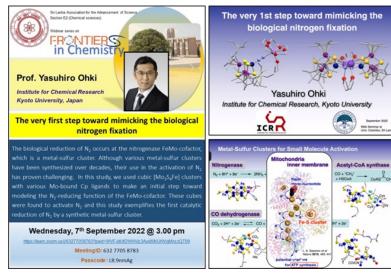
#### 'Frontiers in Chemistry Research' webinar series

The third webinar of a series of webinars under the theme 'Frontiers in Chemistry' which showcases cutting-edge scientific research conducted by chemists around the world over was organized by SLAAS section E2. The webinar was held on  $22^{nd}$  June 2022 from 4:00

pm to 6:00 pm via ZOOM. Dr. David Chalmers, Senior Lecturer in Medicinal Chemistry, Monash Institute of Pharmaceutical Science, Faculty of Pharmacy and Pharmaceutical Science, Monash University (Parkville Campus), Australia presented the webinar entitled "Peptides and lipids: Using molecular simulation to understand and design nanomaterials". Dr. Chalmers discussed about molecular dynamics and other modeling approaches which can be employed to design and synthesize novel peptide-based and lipid-based materials and to complement in vitro studies of these systems. Around 120 participants attended the webinar from various institutes in Sri Lanka. This webinar was organized and coordinated by Prof. Rohini de Silva and Dr. Gayathri N. Silva.



The fourth webinar under the theme 'Frontiers in Chemistry' was held on Wednesday, 7th September 2022 from 3:00 pm to 5:00 pm via ZOOM. Prof. Yasuhiro Ohki, Institute for Chemical Research, Kvoto University, Japan presented the webinar entitled "The very first step toward mimicking the biological nitrogen fixation". The biological reduction of N2 occurs at the nitrogenase FeMo-cofactor, which is a metal-sulfur cluster. Although various metal-sulfur clusters have been synthesized over decades, their use in the activation of N<sub>2</sub> has proven to be challenging. Prof. Ohki elaborated their studies on cubic [Mo<sub>3</sub>S<sub>4</sub> Fe] clusters with various Mo-bound Cp ligands to make an initial step toward modeling the N2-reducing function of the FeMo -cofactor. Furthermore, Prof. Ohki explained that these cubes were found to activate N2 and this study exemplifies the first catalytic reduction of N<sub>2</sub> by a synthetic metal-sulfur cluster. Around 100 participants attended the webinar from various institutes in Sri Lanka. This



webinar was organized and coordinated by Prof. Rohini de Silva and Dr. Gayathri N. Silva. Link to the record of the webinar can be found at <a href="https://www.youtube.com/watch?v=fTxX6]MlzwA">https://www.youtube.com/watch?v=fTxX6]MlzwA</a>

#### 'Sri Lankan Chemists in Focus' webinar series

This series of bimonthly webinars was organized in showcasing the achievements of Sri Lankan chemists in the context of scientific research at the international level in light of aspiring the future chemists of Sri Lanka. After hosting three successful webinars earlier during the year, the fourth webinar of the series was presented by Dr. Varuni Livera, Group Leader, LTD-MBE Etch Intel Corporation, USA, on Wednesday, 3rd August, 2022, 7:00 - 8:30 pm *via* ZOOM. Dr. Livera presented on the topic 'A journey from lab to a leadership role in industry', where she discussed how it is to work on something new, self-diagnostic tools to help plan strategies for development focus, growth mind sets, Eisenhower matrix *etc*. Dr. Livera's presentation was very informative, and she explained many tools to getting used to a new job role. This was a successful webinar event and participants gathered a deep knowledge on how to perform well from lab to a leadership role in industry. The activity was organized and coordinated by Dr. Dinusha Udukala and Dr. Amila Jeewandara. Link to the record of webinar can be found at <a href="https://www.youtube.com/watch?v=ScSCO.shN7s">https://www.youtube.com/watch?v=ScSCO.shN7s</a>



#### 'Chemistry for Social Conscience' webinar series

The second webinar of a series of webinars under the theme 'Chemistry for Social Conscience' organized in light of increasing public awareness on the scientific background of ongoing and contemporary events of social concern was held on Thursday, 25<sup>th</sup> August at 10:00 am *via* ZOOM. Here, Dr. Mudassar Marso from the Department of Chemical Sciences, South-Eastern University of Sri Lanka present-

ed the topic on "Biodiesel: Chemistry, Challenges and Opportunities". Dr. Marso's talk was very timely and informative. He highlighted the chemistry related to the biodiesel and its current challenges and opportunities. The webinar was a successful event where the participants gathered deep knowledge on the biodiesel technology. This webinar was coordinated by Dr. Chamila Kadigamuwa and Dr. Lahiru Wijenayaka. Link to the record of the webinar can be found at <a href="https://www.youtube.com/watch?v=7sxihdHFpil">https://www.youtube.com/watch?v=7sxihdHFpil</a>

#### 'Pathway to a Successful Career in Chemistry' webinar series

The second of a series of webinars under the theme 'Pathway to a Successful Career in Chemistry' was conducted as a panel discussion on potential career opportunities for chemists was held on 8th July at 10:00 am *via* ZOOM. This webinar focused on the third and fourth year honours students, temporary lecturers, demonstrators and probationary lecturers in universities who are planning to pursue higher education in Chemistry. The resource persons of the discussion were Dr. Udayana Ranatunga (Senior Lecturer, Department of Chemistry, Faculty of Science, University of Peradeniya), Dr. Lakshitha Pahalagedara (Head of Business Development, Sri Lanka Institute of Nanotechnology) and Dr. Piyal Ariyananda (Global Head of Innovation, Stretchline Pvt Ltd). The panel discussion focused on the potential higher education opportunities and ensuring career prospects in Chemistry, while being a successful event where the participants gathered understanding on the job market related to the field of chemistry and its current and future demand. This panel discussion was coordinated and moderated by Dr. Laksiri Weerasinghe and Dr. Imalka Munaweera. Link to record of the webinar can be found at <a href="https://www.youtube.com/watch?v=U">https://www.youtube.com/watch?v=U</a> HH kEgbtE



#### Inter-university and Inter-school competitions by E2

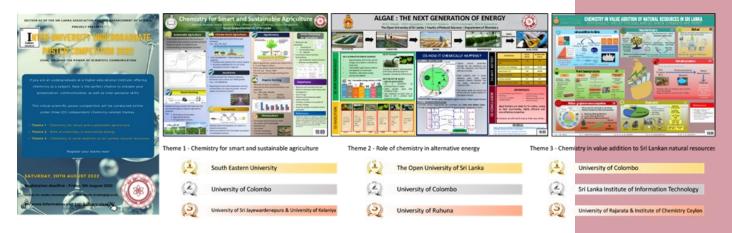
#### **Inter-university Undergraduate Poster Competition in Chemical Sciences**

The Inter-university Undergraduate Poster Competition in Chemical Sciences 2022 organized by SLAAS section E2 was held successfully on 20<sup>th</sup> August 2022, online *via* ZOOM. Universities competed under three themes <u>'Chemistry</u> for smart and sustainable agriculture', 'Role of chemistry in alternative energy' and 'Chemistry in value addition to Sri Lankan natural resources'. The overall poster competition event was coordinated by Dr. Imalka Munaweera.

Dr. Imalka Munaweera coordinated 'Chemistry for smart and sustainable agriculture' session and were judged by Prof. S. D. M. Chinthaka, Dr. Nadeesh Adassooriya and Dr. Chanaka Sandaruwan. South-Eastern University secured the first place and University of Colombo secured the second place. University of Sri Jayewardenepura and university of Kelaniya secured the third place.

First, second and third places were secured by The Open University of Sri Lanka, University of Colombo, and University of Ruhuna, respectively under the theme of 'Role of chemistry in alternative energy'. Dr. Dinusha Udukala coordinated this theme while Dr. Aashani Tillekaratne, Dr. Nuwan de Silva, and Dr. Sanjeewa Rodrigo served as judges.

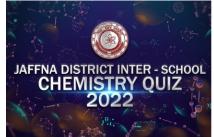
The poster theme 'Chemistry in value addition to Sri Lankan natural resources' was coordinated by Dr. Chamila Kadigamuwa and judged by Prof. Dinesh Pandithavidana, Dr. Danushika Manathunga, and Mr. Amila Roshan Siriwardena. University of Colombo, Sri Lanka Institute of Information Technology secured the first and second places, respectively. University of Rajarata and Institute of Chemistry Ceylon secured the third place.



#### Jaffna District Inter-school Chemistry Quiz

The stage 1 Inter school quiz program for school students in Jaffna was held on 29th of August, 2022. Students from 21 schools participated at this. Jaffna Hindu College and Vembadi Girls' High School were selected for the final round (stage 2) which was held on

10th September, 2022 at the Open University of Sri Lanka. After a strong competition, Jaffna Hindu College emerged as the winners. Prof. Rohini M. de Silva and Dr. Gayathri N. Silva coordinated the event, while the event was a collaboration between SLAAS section E2, Chemical Society of the University of Jaffna and the Chemical Society of the University of Colombo. The event was sponsored by Link Naturals Pvt Ltd.





#### **Inter-university Undergraduate Chemistry Quiz**

Section E2, annually organizes an Inter-University Quiz Competition on Chemical Sciences in order to provide an opportunity for undergraduates from different universities and higher education institutes to interact with each other and develop their interest in Chemistry. The first round of the event was successfully completed online on 27th August 2022 and the semifinalists were selected. More than 45 participants from various higher educational institutions in Sri Lanka. Dr. Sanjeewa K. Rodrigo from Department of Chemistry, The Open University of Sri Lanka was the Quiz Master of the competition while Dr. Chandani Ranasinghe, Dr. O.K.D.U.P. Nissanka, and Dr. Induni Siriwardane were the judges for the semi-final round. The final round of inter university quiz competition was held on 10th September 2022 at the Open University of Sri Lanka. The first place of the quiz competition was secured by the University of Jaffna. Second and the third places were secured by the University of Colombo and the University of Ruhuna, respectively. Dr. Thelma Abeysinghe, Dr. Dinusha Udukula and Dr. Amila Jeewandara coordinated the event, while the event was sponsored by MAS (Pvt) Ltd.



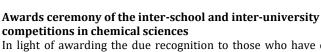




University of Jaffna







In light of awarding the due recognition to those who have excelled in the chemistry curricula at undergraduate and school levels, a series of competitions were organized by section E2 as part of the Inter-university and Inter-school Competitions in Chemical Sciences 2022. The final rounds and the award ceremony of these competitions were successfully conducted on Saturday, 10th September 2022 at the Open University of Sri Lanka (OUSL). Emeritus Professor in Chemistry at the Open University of Sri Lanka, Professor Kamal Bandara Gunaherath graced the occasion as the Chief Guest while other distinguished university academics and professionals, competitors selected for the final rounds, and university undergraduates as well as members and officials of the Sri Lanka Association for the Advancement of Science participated in the event. Overall, the proceedings provided the much-needed arena to fulfill the objectives of organizing events of this nature.









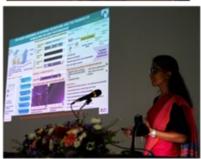
#### Inter-university Undergraduate Research Competition in Chemical Sciences 2022

The inter-university undergraduate research competition in chemical sciences organized by Section E2 of SLAAS was successfully completed on Saturday, 15<sup>th</sup> October 2022. A total of 26 submissions were received for the competition and after careful evaluation of each submission, 10 submissions were selected for the final round of the competition held on 15<sup>th</sup> October. At the finals, each candidate was required to make a six-minute presentation using a poster designed by them, followed by a Q&A session. Senior Professor K. S. D. Perera from the Open University of Sri Lanka, Senior Professor Pradeep M. Jayaweera from the University of Sri Jayewardenepura, and Dr. Upul Kumarasinghe from the University of Sri Jayewardenepura served as the judges of the competition. The event was coordinated by Dr. Amila Jeewandara and Dr. Lahiru Wijenayaka while it was sponsored by Abans Auto (Pvt) Ltd., LOLC Holdings, Orel Corporation, and Exide Batteries. B. K. R. O. Rodrigo and M. R. Dyaanika Gimhani Kumari from the University of Peradeniya secured 1<sup>st</sup> and 2<sup>nd</sup> places of the competition, and R. K. A. I. Anushka Rathnayake from the Institute of Chemistry Ceylon won the 3<sup>rd</sup> place.













### **Section E3**

#### Workshops

A workshop for A/L students on "**How to select a University Degree Program to match your aspiration?**" was conducted on September 16th 2022 from 11 am to 1 pm for students who passed GCE A/L in Agriculture, Biology, Chemistry, Combined mathematics, IT, and Physics in any combination and applying for universities in 2022. The session, which was mostly conducted in Sinhala, was recorded and is now available on YouTube for future reference at: <a href="https://www.youtube.com/watch?v=vDl3Orb6sIs">https://www.youtube.com/watch?v=vDl3Orb6sIs</a>; <a href="https://www.youtube.com/watch?v=vDl3Orb6sIs">ht

Dr. Prasad Senadheera, General Secretary of SLAAS gave the welcome address while Prof. Manuj Weerasinghe, President of SLAAS provided an insight about SLAAS. The session on "Introduction to Computer Science and IT" was followed by two parallel sessions on Physical Science/Mathematics and Biology/Health Science. Dr. Rasika Dayarathna, President of SLAAS/Section E3 gave the opening remarks. The session on "Introduction to Computer Science and IT" explained which degree programs are available in Computer Science and IT (in the state and non-state sectors), a description of the programs, entry requirements to apply, offered universities, and finally professions they can target.

Five speakers from academia provided detailed aspects on different fields; Computer Engineering (Dr. Sampath Computer Engineering, University of Peradeniya), Information Systems (Dr. K Pubudu Jayasinghe, Senior Lecturer in Information and Communication systems, University of Sabaragamuwa), Computer Science (Dr. Chaminda Wijesinghe, Dean – Postgraduate and professional development Faculty, NSBM Green University), Information Technology (Dr. Ravimal Bandara, Senior Lecturer in Computer Science, University of Sri Jayewardenepura), and Software Engineering (Dr. Nuwan Kodagoda, Associate Dean, Faculty of Computing, Computer Science and Software Engineering, Sri Lanka Institute of Information Technology) during the session. For the students with biological background, there were three speakers elaborating three main domains; Medical and health sciences (Prof. Manuj Weerasinghe, Professor in community medicine, University of Colombo), Agriculture and Science (Dr. Buddhika Arukgoda, Senior Lecturer In Agriculture engineering, The Open University of Sri Lanka), and Biology and Chemistry (Prof. Chamari Hettiarachchi, Professor in Chemistry, University of Sri Lanka). Students with a physical science background were provided explanations about the degree programmes in engineering and physical sciences fields by Dr. Siyath Gunawardene, Senior Lecturer in Physics, University of Colombo.

# **Section F**

#### Webinars

An online panel discussion on "Importance of Financial Literacy" was held on 30th July 2022 from 7:00-8:30 pm with Prof. Ruwan Abeysekera and Mrs. Dhanushka Piyananda as the panel members and Dr. Chathura Liyanage as the moderator. There were more than 80 participants present and this activity was organized in collaboration with the Department

of Finance, University of Kelaniya and coordinated by Prof. Susima Weligamage.

A webinar was held on 'Career Development and Personal Branding' for University Students on 11th August 2022. It was conducted by Mr. Prasanna Pathmanathan who was awarded the Trainer of the year in South Asia in 2018. This was organized by Dr. Menuka Udugama

#### Radio programmes

A live media discussion was held on 'Climate Change' on 6<sup>th</sup> October 2022 on Swadeshiya Sewaya Mihithlaya programme by Sri Lanka Broadcasting Corporation. Prof. Wasantha Rathnayake, President Section F attended as the resource person.



# **General Research Committee**

#### **Webinars**

A webinar on "Application of Artificial Intelligence & Blockchain Technology in Virtual Power Plants (VPP)" was jointly organized by the General Research Committee and section E3 on 4<sup>th</sup> July 2022. The resource person was Dr. Masayuki Hisada, CEO, Aizu Computer Science Laboratory, Inc, Japan. The event was well attendant with 30 participants and coordinated by Mr. Chamila Karunathilake.

The tenth activity of GRC, "A webinar on Good Scientific Practices and Chemical Safety in Research" was conducted on 29th July 2022 from 9:30 am to 12:30 pm *via* Zoom platform. The event was organized by the General Research Committee in collaboration with Section E2 of SLAAS and the Buckyball society of the Department of Chemistry, The Open University of Sri Lanka section E3. The resource persons were Dr. DD Dushantha H Alwis, Dr. Thelma Abeysinghe, and Dr. Lahiru Wijenayake. The event was well attended with 47 participants.

A webinar on "Intellectual property rights (IPR) and what you should know about it" was conducted on 29th July 2022 from 1:30 pm to 3:30 pm *via* Zoom platform. The event was organized by the General Research Committee in collaboration with National Research Council of Sri Lanka. The resource person was Professor M N Kaumal. The event was coordinated by Dr. Shanika

Jayasekara and well attendant with 42 participants.

#### **Guest lectures**

A Guest lecture on "From Research to Dissemination: Ethical Responsibility and Improving Visibility" was conducted on 22<sup>nd</sup> September 2022 from 10 am to 12:30 pm *via* Zoom platform. The event was organized by the General Research Committee in collaboration with the Department of Civil Engineering, SLITT. The resource person was Professor Jagath Manatunga. The event was coordinated by Prof. Shiromi Karunaratne.



#### **Workshops**

A mini workshop on **"Extreme Sea Levels and Coastal Flooding Projections for Sri Lanka"** was conducted on 26<sup>th</sup> October 2022 from 10 am to 12:00 noon at the SLAAS auditorium. The event was organized by the General Research Committee in collaboration with the Department of Civil Engineering, University of Moratuwa and IHE, Delft, Netherlands. The resource person was Professor Roshanka Ranasinghe, Professor of Climate Change Impacts and Coastal Risk, IHE, Delft. Deputy Ambassador of the Kingdom of Netherlands, Her Excellency Anouk Baron graced the event. This event was fully sponsored by the IHE, Delft and was coordinated by Prof. Udeni Nawagamuwa.



#### **GRC Awards**

Three categories were called for applications, the Lifetime Award, the Postgraduate award, and the Innovation award. Winners of the first two categories were informed to the Awards committee and there were no eligible candidates for the innovation award.

# **Science Education Committee**

Up coming events at the Annual Sessions of SLAAS by Science Education Committee

A special session entitled "School Education in Sri Lanka – are we on the right track?" will be organized at the Annual Sessions of SLAAS on 15th December 2022 from 2:00–5:00 pm at Chemistry Lecture Theatre (CLT), University of Colombo. In this session, a detailed analysis of the current school education systems in Sri Lanka and around the globe, as well as the recommendations of the committee based on the analysis of the questionnaire on "Need assessment on reforming of Science Education in Sri Lanka" will be presented. Responses to this questionnaire were received from SLAAS Council members, SLAAS sectional committee members, school teachers, university students (both undergraduate and postgraduate). The session will conclude with a panel discussion with the participation of many stakeholders in the Sri Lankan education system.



# **Committee for Popularization of Science**

#### **Programmes for School Children**

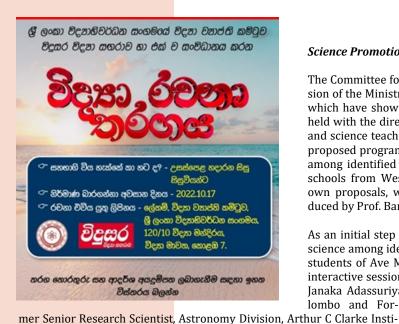
The Committee for the Popularization of Science 2022 organized several programs including all-island competitions, surveys and science programmes for school children.

#### **All Island Innovation Competition**

The all-island innovation competition was conducted in collaboration with the Faculty of Technology, University of Colombo and the Science Division of the Ministry of Education, with the purpose of motivating school students to use science to solve common problems with innovations. The competition was conducted for two age categories: Grade 6 – 9 (Junior category) and Grade 10 – 13 (Senior category). At the initial phase of this activity, a training session was conducted for the interested students and teachers. More than 350 applications were received covering all the provinces and best innovations were selected from the junior category and the senior category. This activity was coordinated by Dr. Sansfica Young.

#### Science Essay Competition

An all-island science essay competition was conducted for Advanced Level students of Sri Lanka with the objective of popularizing science among school children and to hone their science writing skills. The essay topic was "Effects of the X-Press Pearl ship disaster on Sri Lanka". This competition was held in all three-language media: Sinhala, English and Tamil. It was advertised in Vidusara, Divayina, The Isalnd and Thinakaran newspapers. This activity was coordinated by Prof. Jayantha Welihinda.



#### Science Promotional Programmes for School Children

The Committee for the Popularization of Science together with the Science Division of the Ministry of Education is organizing programmes for selected schools which have shown poor results in science. As an initial step, a discussion was held with the director and the deputy director of the Science Branch, principals and science teachers of schools to discuss about the method of execution of the proposed programme with the intention of popularizing and promoting science among identified schools with poor results in Science. Accordingly, nearly 40 schools from Western, Central, and North Central provinces developed their own proposals, which will span for three years. This programme was introduced by Prof. Bandunee Athapaththu.

As an initial step towards fulfilling the purpose of popularizing and promoting science among identified schools, a planetarium visit was organized for Grade 9 students of Ave Maria College – Mattakkuliya on 29th September 2022. A very interactive session was held for the students with several resource persons: Dr. Janaka Adassuriya (Senior Lecturer, Department of Physics, University of Colombo and For-

tute, Sri Lanka), Dr. Kasun Piyumal (Department of Physics, University of Kelaniya), Dr. Chamila Kadigamuwa (Department of Chemistry, University of Kelaniya) and Dr. Jayangika Dahanayake (Department of Chemistry, University of Kelaniya, Chair-CPS). Furthermore, an inspirational talk and a magic show will be held at Sri Parakramabahu Maha Vidyalaya, Narahenpita on 21st November with the resource persons: Senior Prof. Privani Paranagama (Chair. Department of

Parakramabahu Maha Vidyalaya, Narahenpita on 21st November with the resource persons: Senior Prof. Priyani Paranagama (Chair, Department of Chemistry, University of Kelaniya and Director/ Institute of Indigenous Medicine, University of Colombo), Dr. Kasuni Akalanka (Head, Department of Basic Sciences, Faculty of Allied Health Sciences, University of Sri Jayewardenepura) and Dr. Jayangika Dahanayake (Department of Chemistry, University of Kelaniya).





#### **Programmes for Target Groups**

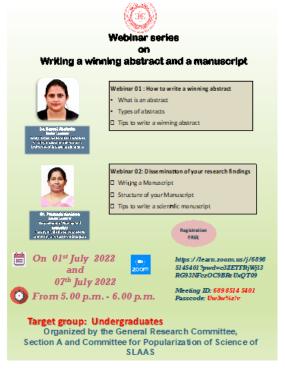
The Committee for the Popularization of Science 2022 conducted several programs including scientific webinars, publishing scientific articles with the intention of enhancing scientific knowledge for particular target groups.

#### Scientific Articles and Webinar

An article entitled "The day Appuhamy in a remotely located scruffy boutique breathes a sigh of relief: an engineer's perspective for a novel economic outlook" was published by Prof. Mahesh Jayaweera. This article appeared in the Sri Lanka Engineering Newsletter (SLEN) of the Institution of Engineers Sri Lanka (IESL).

A webinar on "**How to write a winning abstract**" were conducted on 1st of July 2022 by Dr. Kasuni Akalanka, Senior Lecturer, University of Sri Jayewardenepura and Dr. Prasanthi Ilankoon, Senior Lecturer, University of Sri Jayewardenepura. The target group of these two webinars was University undergraduate students. These webinar sessions were followed by a question and answer session where many participants were actively engaged. The event was coordinated collaboratively by Section A and GRC of SLAAS.





# Programmes for School Teachers: Combined Mathematics Teacher Training Programme

A Teacher Training Programme for teachers of GCE A/L Combined Mathematics was organized by the CPS and Section E1 with the assistance of the Mathematics Branch of the Ministry of Education. This programme was coordinated by Dr. Gaya Jayakody and Dr. Rajitha Silva. It is planned to conduct this programme physically in all nine provinces of Sri Lanka. The second teacher training programme was successfully held in Matara Central College of Southern Province on 26th September 2022 with the participation of large number of teachers. The program is coordinated by Dr. Rajitha Silva, Dr. Gaya Jayakody and Dr. Sujeewa Wijesiri. The resource persons were Dr. Shelton Perera from University of Rajarata and Dr. Gaya Jayakody form University of Sri Jayewardenepura. This workshop was the first of its kind since it was not only focused on the subject content but also on the pedagogical content specific to Mathematics.

An effort to instil in young minds, an unparalleled curiosity about science!

Formulated by Section E2 of SLAAS and available for purchase at the SLAAS office.



For more details please visit: <a href="https://www.slaas.lk/Science Kit.php">https://www.slaas.lk/Science Kit.php</a>

Or contact Dr Laksiri Weerasinghe (mobile: 0775401882)

to		



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