

NEWSLETTER

FACULTY OF APPLIED SCIENCES, SEUSL



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ACKNOWLEDGEMENT

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1. ANNOUNCEMENTS AND APPOINTMENTS

1.1 Official Opening of the Administrative Office for the Department of Chemical Sciences



The ceremonial inauguration of the new Department of Chemical Sciences, Faculty of Applied Sciences was held on 7th of November, 2019. Professor M.M.M. Najim, Vice-Chancellor of the University was the chief guest at the ceremony. Dr U.L. Zainudeen, Dean, Faculty of Applied Sciences; Dr M.H. Haroon, Head of the Department, academic and non-academic staff members of the department, and students participated in this event.

1.2 Re-appointment of Dean / Faculty of Applied Sciences



Dr U.L. Zainudeen, Senior lecturer in the Department of Physical Sciences, Division of Physics, has been re-appointed as Dean of the Faculty of Applied Sciences, SEUSL, for three (03) years with effect from June 2019.

1.3 New Heads of the Departments



Dr M.H. Haroon has been appointed as the Head of the Department of the Chemical Sciences with effect from March 2019



Mr A.L. Hanees has been appointed as the Head of the Department of the Mathematical Sciences with effect from July, 2019.



Dr. (Mrs) Sujarajini Varatharasan has been appointed as the Head of the Department of the Biological Sciences with effect from July 2019. She is a veteran member of Department of Biology having more than twenty years of experience as the university lecture. She has read his PhD in Zoology at Eastern University of Sri Lanka under the supervision of prof. P. Vinobaba.



Dr Madurya Adikaram has been appointed as the Head of the Department of the Physical Sciences with effect from July 2019. She is one of the pioneer members of Earth Science division and has more than 13 years of experiences as a university lecturer and as a geologist at the Faculty of Applied Sciences, South Eastern University of Sri Lanka. She obtained her BSc Hons in Geology from the Department of Geology, University of Peradeniya and received MEng. from Saitama University, Japan in Civil and Environmental Engineering. She later earned her PhD in Earth Sciences at the University of Peradeniya for researching

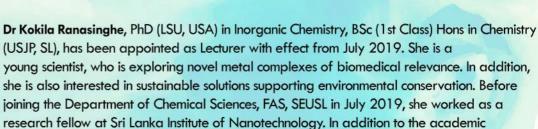
on Sedimentology and Geochemistry. In addition to the Head of the department, she is bearing numerous responsibilities in various internal academic committees and subjective societies of Sri Lanka.

1.4 New Appointments



Dr M.N.M. Farhath has been appointed as Senior Lecturer Gr-II with effect of from July 2019 in the Department of Chemical Sciences. Dr Farhath obtained his BSc Hons in Computational Chemistry at the University of Colombo. He was awarded a scholarship to peruse doctoral studies at Kent State University, USA, where he earned his PhD in molecular biology and biochemistry. After his PhD, he worked at the Harvard University, Harvard Medical School, as a postdoctoral fellow before joining with FAS, SEUSL. His research interest

includes biological function of DNA and RNA secondary structures and therapeutic application of Non-coding RNAs (NcRNA) such as microRNAs and CircRNAs.



involvement, she is currently serving as the secretary of the Curriculum Development Committee, FAS. She is the 2018 awardee of the Mary Jo Pribble Graduate Student Award for Excellence in Inorganic Chemistry offered by Louisiana State University. She has authored several peer-reviewed research articles published in internationally (Inorg. Chem.) and locally recognized journals and won an NRC (Sri Lanka) merit award for scientific publications in 2016. Her career goal is to motivate young generations in Sri Lanka to pursue and excel in science by establishing a cutting-edge research program at FAS, SEUSL.



Mrs M. A. Haalisha has been appointed as a Lecturer (Probationary) in Applied Statistics at the Department of Mathematical Sciences with effect from July 2019. She received her BSc Hons in Applied Statistics from South Eastern University of Sri Lanka 2015. Soon after her graduation, she had been appointed as a temporary lecturer in Statistics at FAS, SEUSL. She is interested in statistical research and has published several research articles. Besides, she also has some preceding experience in teaching as a visiting Lecturer at ICBT Campus, Batticaloa.



Mr S.V.T.D. Raveendrasinghe, MSc in Gemmology and BSc Hons in Geology, has been appointed as a Lecturer (Probationary) in Earth Science at Department of Physical Sciences, FAS since July 2019. He had borne several positions in the public universities and government statutory boards. In addition to those positions, he is an associate member of Institute of Geology Sri Lanka (IGSL) and life member of both Geological Society of Sri Lanka (GSSL) and Gemmologist Association of Sri Lanka (GASL). Also, he has been endowed with

several local and foreign awards for his outstanding performance in Geoscience. He has published 02 peer-reviewed journal articles, one international book publication and more than 15 abstract publications. His thematic research interests are minerals and rocks with their industrial uses, gem occurrences, gem formations, colour enhancements of gemstones, rocks and mineral explorations, geophysical explorations and related developments.



Mr M.T.M. Firas has been appointed as Lecturer (Probationary) at the Department of Mathematical Sciences, Division of Applied Statistics with effect from August 2019. He earned his BSc Hons in Statistics and Operation Research at the University of Peradeniya where he won the university award for academi ecxcellence. Mr Firas is interested in conducting applied statistical research. His prior experience at LIRNEasia, a regional digital policy think-tank, stimulated his interest on call detail records big-data

analysis to explore mobility patterns in Sri Lanka, investigation of information and comunication tecnology access and usage in asian countries. He also has prior experience at the analysis division of Lanka Market Research Bureau (Pvt) Ltd before joining FAS.

1.5 Scholarship Recipients for Higher Studies



Miss E.G.K.M. Gamlath, Lecturer (probationary) in Applied Biology at the Department of Mathematical Sciences, received an offer to peruse her PhD in Mathamatics at The University of Mississippi - Ole Miss, USA.



Miss T.W.G.F Mafaziya Nijamdeen, Lecturer (probationary) in Applied Biology at the Department of Biological Sciences, joined with the Systems Ecology and Resource Management Research Unit of Université Libre de Bruxelles, Brussels, Belgium to peruse her PhD. Her research work will focus on prospect presage and predicament of mangrove ecosystem conservation and ecosystem health indicators.



Mr N.M. Fasmie, Lecturer (Probationary) in Mathematics, Department of Mathematical Sciences, joined with the Universiti Utara Malaysia, Malaysia. He is one of the talented young scientists at FAS and earned his BSc Hons in Mathematics at University of Peradeniya before joining the FAS. For his MSc thesis, he is currently working on Applied Mathematics related research.

1.6 New Postgraduate Degree Holders



Dr M.A.C Akmal Jahan has completed her PhD at Queensland University of Technology (QUT), Australia and joined back to the Department of Mathematical Sciences, Faculty of Applied Sciences, with effect from January 2020. During her PhD studies, she won Queensland University of Technology Postgraduate Award (QUTPRA) for her excellent research work which focuses on contactless hand biometrics with higher order spectral invariant feature representation. Besides, she has held several positions at QUT such as student branch secretary for QUT IEEE, an ambassador for IEEEXtreme programme in Queensland section and sessional academic for undergraduate and postgraduate courses in

QUT etc. Due to her excellent academic record, she has been recognized as an Associate Fellow of the Higher Education Academy (AFHEA) against the UK Professional Standards Framework for teaching and learning support in higher education.



Dr A. Maniceevan, Lecturer (probationary) in Chemistry at Department of Chemical Sciences, FAS, successfully completed his doctoral studies at Postgraduate Institute of Science (PGIS), University of Peradeniya. During the PhD studies, he pursued research investigation in "Fabrication and characterization of high-efficiency quantum dot-based solar cells to harvest solar energy in a wide spectrum" under the supervision of Prof J.M.S. Bandara and Prof R.M.G. Rajapaksa. As a young scientist, he published three peer-reviewed scientific papers and two abstracts, and won the presidential award and NRC merit award for his excellent contribution to the advancement of science.

STAFF ACHIEVEMENTS AND PROMOTIONS

2.1 Staff Achievements

Presidential Award



Dr A. Manjceevan, Lecturer (Probationary) in Chemistry won the "Presidential Award" for publishing scientific articles in high impact journal, Solar Energy Materials and Solar Cells, titled as "Robust surface passivation properties of CdS layer and thickness dependence solar cell performance of PbS/CdS co-sensitized Quantum Dot Solar Cells". He received the award in the ceremony held in Grand Marquee, Taj Samudra, Colombo on 19th November 2018. In addition, he earned the "NRC merit award" for scientific publication titled as "Optimization of performance and stability of quantum dot sensitized solar cells by manipulating the electrical properties of different metal sulfide counter electrodes" published in the journal of Electrochimica Acta in 2017.

Vice Chancellor's Award



Dr Madurya Adikaram, Senior Lecturer Gr. I and Head of the Physical Science Department, received the Vice Chancellor's Award to appreciate her excellent academic achievements. She is a geoscientist and an Environmentalist. She is serving as a teacher in earth science for more than decade at FAS. She has published 11 peer-reviewed articles in international journals and more than 25 abstracts in local and international conferences.

Senate Honours Award



Dr M.I.S. Safeena, Senior Lecturer Gr. I and Director of Centre for Quality Assurance, SEUSL attached to the Department of Biological Sciences, Faculty of Applied Sciences, SEUSL won the first Senate Honours Award. It was awarded by the Vice Chancellor at the 197th of Senate meeting for publishing a research article on "In silico identification of microRNAs and their target genes in watermelon (Citrullus Ianatus)" in the high impact journal Scientia Horticulturae 2019.

2.2 Promotions



Prof. Aboobacker Jahufer, a veteran faculty member at Faculty of Applied Sciences (FAS), promoted to Professor in Applied Statistics since 2016 at the Department of Mathematical Sciences. He read his BSc Hons and MSc in Applied Statistics at the University of Peradeniya and continued his academic studies by completing MPhil in Statistics at Post Graduate Institute of Science (PGIS), University of Peradeniya. Due to his excellent record in the statistical field, he was awarded a Scholarship for Doctoral studies by the Chinese Scholarship Council (CSC), Government of P.R. China and, earned his PhD at the Xiamen

University 2010. Prof. Aboobacker Jahufer began his journey in the academic field by joining as a Demonstrator in June 1994 at University of Peradeniya. Then, he worked at the Faculty of Management and Commerce, South Eastern University of Sri Lanka (SEUSL) as an Instructor in Mathematics before appointing to Faculty of Applied Sciences (FAS) as Lecturer (Prob.) in Statistics in 2001. He was promoted to Senior Lecturer Gr-II and Gr-I in 2006 and 2012 respectively. In addition, He has served the FAS by holding many academic and administrative positions including Head of the Department of Mathematical Sciences, acting Dean of the FAS, secretary of the curriculum development committee, secretary to the SEUSL Teachers Association, and Chairman of Sports Advisory Board of SEUSL etc. Further, his contribution as a Director for Centre for Extension Studies, SEUSL and Coordinator of Postgraduate Diploma in Applied Statistics are also memorable. In terms of research and academic achievement, he has published 9 books, 25 abstract and 36 research articles in high impact journals.

3.

STUDENT ACHIEVEMENTS AND ACTIVITIES

3.1 Sports

Medal Winner at Sri Lankan University Games (SLUG)



The Sri Lankan University Games (SLUG) is an inter-university sporting event held every four years. All 14 state universities competing for each other in this sports fiesta to show off their strength and skills. The first, second, and third-place finishers in each event receive, respectively, gold, silver, and bronze medals. Students of the South Eastern University of Sri Lanka also took part in a variety of events. The SLUG 2019 was very special for FAS because of Odhatha Bandara who wrote the FAS history as a fellow athlete.

Mr M.B.O.J. Bandara was born and bred in

Thennekubura, a village located in Kandy. He was a keen student and have had finished his primary and secondary education in Poramadulla Central College. He was able to enter the South Eastern University of Sri Lanka as an undergraduate of physical science stream. Being so talented in athletics he had never failed to show his true colours as a sportsman.

Mr Odhatha was in his final year at FAS when he was participating in the SLUG 2019. By competing with various talented competitors from 14 universities he won the 3rd place in the event of discus throw. Apart from SLUG 2019, he had won the second place and the third place for the discus throw in the Inter-University Games 2018 and 2019 respectively. He also ended up being the 4th in the event discuss throw in SLUG 2016. We would like to wish him success and a bright future.

Sport Tournament



The Sports Society of the FAS organized annual indoor sports tournament with the intention of uplifting socio-emotional skills of students. The tournament consists of indoor games including chess, carom and table tennis. The event was held with the participation of a large number of FAS students and certificates were given off to winners of each category.

Gaming Tournament



The Media Society of FAS and Engineering Faculty got together and successfully organized a computer gaming tournament on 11th of December at the FAS auditorium. This online gaming competition allowed students to off academic activities for a moment and get some mental relief. At the end of the competition, FAS students secured second place and received the cash prize.

3.2 Students Activities

Agni Pixels 2019-Short Film Competition



Intending to promote and improve innovative artistic skills of FAS students, the media society of FAS organized a short film competition "Agni Pixels" for the first time in the history of FAS. This event created a great opportunity to FAS students to expose their talents on the same platform without any discrimination. Agni Pixels was held on 25th of July 2019 in the faculty auditorium. There were eleven short films under four main categories namely drama, comedy, horror and documentary. Not only students of FAS but also students from the faculty of

management and commerce were participated by rendering two short films for the competition. First place was awarded to the heart touching film, "Wasitiye Wendasi Jeewitha" (වාසිටියේ වෙන්දේසි පීවිත) under the category of drama. It was a story of a university student struggling with financial difficulties and at the same time having so much of family commitments during his university studies. The third and second place winners were "324" under the horror category and "Aruthbara Hadawath (අරුත්වර හඳවත්)" under the category of drama respectively. The winners were awarded with cash by organizing committee.

1st place;

https://www.facebook.com/agnimedia/videos/455417915239896/

2nd place;

https://www.facebook.com/agnimedia/videos/479168852652770/

3rd place

https://www.facebook.com/agnimedia/videos/354207171926487/

New Year Celebration

Intending to enhance social harmony and socio-emotional skills, the Faculty of Applied Sciences students successfully organized the annual "New Year Festival" in order to celebrate Sinhala and Tamil New Year. This was organized by the 2014/2015 batch of FAS at the faculty premises and all the academic staff and students were invited to glorify the event. The day began with delightful "Raban Sural" and never missed delicious "Avurudu Kama Mesaya" filled with numerous cultural foods.



The variety of traditional games were started with the participation of all students. Especially, the games such as "Kaba Adeema", "Kana Mutti Bideema" and "Kotta Pora" were highlighted the day. At the end of the day, winners of the different fun games were appreciated with special gifts arranged by organizing committee concluding another wonderful day at FAS.

Annual Carol Function

Faculty of Applied Science, SEUSL is widely known for its multi-ethnicity. The month of December is usually unique to Catholic community as they celebrate the birth of Jesus on a grand scale. In order to rejoice this cultural occasion, Students Christian Movement (SCM) of FAS organized the Annual carol function, "Feliz Navidad" for the third consecutive time. This colorful occasion comprises of carols, dramas and dance events that emphasize the real feeling of the Christmas.



The "Feliz Navidad" helped the students to reveal a new chapter to improve the brotherhood of interfaith cooperation within the faculty. The event was done with the help of all communities in FAS ignoring interracial boundaries. The event was decorated with 14 carols in different languages and two dramas, "The holy birth of Jesus" and "The true beauty of Christmas". Besides, a wonderful traditional dancing event was also organized to stage up the beauty and equality of the event. Though, this was arranged by the SCM,

almost all the students have been participated to witness the true essence of a completely happy night.

Blood Donation Campaign



As a community service project, FAS students organizes the blood donation campaign each year. The recent campaign took place on 15th of January 2019 at the FAS common hall with the help of Samanthuraai General Hospital. As a multicultural society, more than 100 FAS student and staff members, belong to different religions and cultures, generously donated blood to make this event successful.

"Clean Up Green Up" Campaign



Our island is well known for its natural beauty created by animal and plant diversity of the country. However, the natural environment of our beloved country is under tremendous threat due to waste mismanagement, deforestation, and inadequately planned development project etc. Intending to save our natural environment for the next generation, FAS students arranged an environmental cleaning and awareness programme in Ampara The programme was conducted in two phases. In the first phase, the surrounding area of the FAS was cleaned and waste were properly

disposed. Subsequently, several street dramas were performed at Ampara city to aware the value of protecting the environment as a part of the second phase. This project was done with the support of the environmental authority and the municipal council of Ampara in addition to the dengue awareness program.

4.

SCIENCE ALERT

The Newest Plastic-Eating Insect - Superworms (Zophobas atratus)



A group of scientists from china (Yang et al.), who had reported several plastic eating insects including mealworms over the last few years has just proven that an insect larva, superworm (Zophobas atratus), is also capable of eating, degrading and mineralizing polystyrene (PS). According to their findings, superworms can live with PS as the sole diet, each

superworm consuming 0.58 mg of PS per day, which is 4 times more than that of mealworm. The consumed long-chain PS molecules are depolymerized into low molecular-weight products at the larval gut. Specifically, these scientists claim that gut microbiota is directly involved with the PS degradation indicating that the gut microbiota of superworm would be a novel bioresource for pursuit of plastic-degrading enzymes: The group states in their latest paper, "Through metagenomics sequencing-based functional annotations and high-throughput functional screening for enzymatic activity, a variety of novel enzymes for PS degradation may be identified from the plastic-eating insects' gut microbiota, which could be used as biocatalyst for plastic wastes biodegradation and recycling". Polystyrene is widely used in packaging and building constructions since 1930. Currently, the annual production of PS reaches approximately 33 million tons, which out of most are discarded without recycling, and have become one of the major plastic detritus accumulated in the environment. Due to its macromolecular structure, PS is generally considered to be resistant to biodegradation. However, in light of this new finding, a promising pathway has opened up in search of sustainable methods to deal with nonbiodegradable plastic waste.

- 1. Yang, Y.; Wang, J.; Xia, M., Biodegradation and mineralization of polystyrene by plastic-eating superworms Zophobas atratus. Sci. 2020, 708, 135233.
- 2. Jambeck, J. R.; Geyer, R.; Wilcox, C.; Siegler, T. R.; Perryman, M.; Andrady, A.; Narayan, R.; Law, K. L., Plastic waste inputs from land into the ocean. Science 2015, 347, 768-771.

Dr Kokila Ranasinghe Lecturer FAS, SEUSL

5.

RESEARCH, CONFERENCES AND DEVELOPMENT PROJECTS

5.1 Academic activities

Inter-School Chemistry Quiz and Preliminary Chemistry Olympiad



All Island inter-school Chemistry quiz and Preliminary round of Chemistry Olympiad 2020 were held on Sunday, 12th of January 2020, at the Faculty of Applied Sciences Auditorium. These two events are annual national events of the Institute of Chemistry, Ceylon, which conducted in various universities of the country. FAS functions as the exam centre for the Ampara district for the past three (03) years from its inception. Mr M. F. Nawas, Senior Lecturer (in Chemistry), corporate member of the institute, conducted and coordinated all those exams successfully.

This is an example of the good relationship the South Eastern University in general, and Faculty of Applied Science, in particular, maintains with other institutes and organizations.

5.2 Research

Annual Research Symposium 2019 (ASRS 2019)



The 8th Annual Science Research Sessions (ASRS) of the Faculty of Applied Sciences (FAS), South Eastern University of Sri Lanka (SEUSL) was successfully held on 07th November 2019, on the theme of, "science of future towards the betterment of the nation". This symposium delivered a great opportunity for young scientists to make presentations based on their dissertations. Professor M.M.M Najeem, Vice-Chancellor of SEUSL and Dr U.L. Zainudeen, Dean, of FAS, graced this occasion. The keynote speaker was Emeritus Professor, Vidya Jyothi, Deshabandu, M.A. Careem, Faculty of Science, University of Peradeniya. In this session, 30 abstracts were published under six different

themes of Sciences. Of these, more than 12 papers were from undergraduates of FAS and were co-authored by FAS academics.

The Journal of Science



The Journal of Science (JSC), an open-access journal, is initiated by the faculty members of the Faculty of Applied Sciences, South Eastern University of Sri Lanka. The scientific community all over the world are encouraged to share their novel discoveries via JSC with free of charges. Further details, including guideline for manuscript preparation and submission can be obtain by visiting (JSC) official website www.seu.ac.lk/jsc.

Collaborative Research on Biofilmed Biofertilizer



The BFBF inventor Prof. Gamini Seneviratne explains about the BFBF to the Botany special undergraduates at the field.



The BFBF applied plant grew larger, greener and carried more grains compared to the chemical fertilizer applied smaller plant.

National Institute of Fundamental Studies (NIFS) with collaboration of the Department of Biological Sciences of FAS conducted around of trials in farmers' fields in 2018/19 "Maha" season, to demonstrate the effect of biofilmed biofertilizer (BFBF) on paddy cultivation.

The BFBF was developed by the NIFS and now under production by a private firm at commercial level has been tested in different parts of the country and shown effective. The study at Sammanthurai revealed that the application of one litre per acre of BFBF along with only half (90 kg NPK/ac) of the chemical fertilizer that is usually added (180 kg/ac) increased the grain yield by 30%, giving a considerable economic gain and reducing pollution.

Prof. Gamini Seneviratne, inventor of the BFBF, of the Microbial Biotechnology Unit of the NIFS in collaboration with Senior Lecturer E.M.J.M. Rizvi of the Department of Biological Sciences, SEUSL conducted this trial in 18 farmer fields in Sammanthurai involving the farmers themselves. The next round of trial is to be conducted involving more farmers covering other areas in the district.

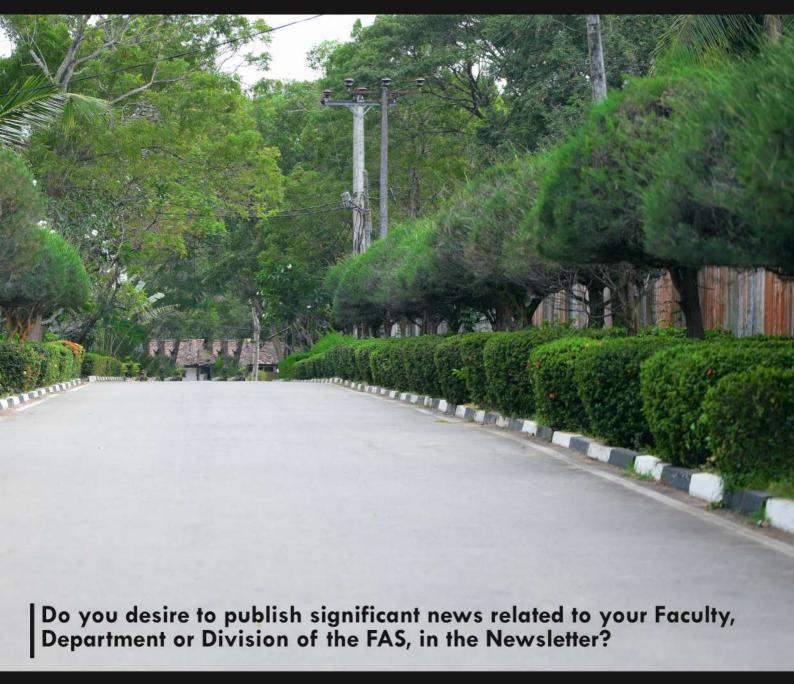
FAS Won 120 Million World Bank Project



The Faculty of Applied Sciences of South Eastern University has won 100 million + 20 million grants under the World Bank project of Accelerating Higher Education Expansion and Development (AHEAD). This grant was offered after highly competitive proposal writing followed by a site visit. Only fifteen faculties were offered this grant out of fifty-three eligible faculties all over the country. The proposal of the FAS, qualified and won grants in October 2019. The proposal

writing team was congratulated by the Dean, FAS, for their hardworks and achievement. A team to implement this project has been appointed with Dr M.H. Haroon (Team leader), Mr M.A.A.M. Faham, Mr A.M Riyas Ahmed, Dr T.B.N Madugalla and Mr M.A.C.M. Raafi/Dr M.N.M. Farhath. The activity team already began several development projects such as renovating academic labs, constructing open stage, buying analytical instruments ect.





Kindly inform us before

15th of June 2020, to be published in the July 2020 issue.

Please make sure to limit the news items to 200 words of maximum and the number of photographs to three.

When you are submitting photographs to be published in FAS newsletter, we strongly advised you to obtained authorization from those who have been photographed, in order to have their photograph taken and be published in FAS newsletter.

Contact us:

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