



RISTCON 2021

8th Ruhuna International Science and Technology Conference

17th February 2021

Faculty of Science University of Ruhuna Matara, Sri Lanka

Inauguration Session

Venue: New Senate Room, University of Ruhuna

08:00 am	Arrival of the Chief Guest & Guests of Honours
08:05 am	Lighting the Traditional Oil Lamp
08:15 am	University Anthem
08:20 am	Welcome Address by <i>Dr. Sunanda Kodikara,</i> Chairperson/RISTCON 2021
08:30 am	Address by <i>Professor P. A. Jayantha,</i> Dean, Faculty of Science, University of Ruhuna
08:45 am	Address by the Chief Guest <i>Senior Professor Sujeewa Amarasena,</i> Vice Chancellor, University of Ruhuna
09:00 am	Keynote Address by <i>Dr. Daniel Gorman,</i> University of Western Australia, Australia. 'The rise of blue carbon science in Sri Lanka: conservation, restoration and resilience'
10:00 am	Speech by French Ambassador Mr. Eric Lavertu
10:20 am	Vote of Thanks by <i>Dr. Nusrath Hameed,</i> Joint Secretory/RISTCON 2021
10:30 am	National Anthem

Oral and Poster Sessions

Program Summary

Time	Topic
11: 00 am- 1:00 pm	Oral Sessions via Zoom
1:00 pm – 1:30 pm	Lunch Break
1:30 pm – 2:00 pm	Plenary lecture by <i>Prof. Ragupathy Kannan</i> University of Arkansas Fort-Smith, Arkansas, USA https://learn.zoom.us/j/65957947830?pwd=UXkzSXV4R3doOU5oanFJV3Y2V3E2UT09
2:00 – 4:00 pm	Poster Sessions via Zoom
2:00 – 4:00 pm	FSPI-SEDRIC Project presentations
4:00 pm	Closing the Program

Category A

Agriculture, Botany, Molecular Biology & Biotechnology

Category B

Biochemistry & Biophysics, Chemistry, Ecology, Environmental Science, Oceanography

Category C

Fisheries & Aquaculture, Medical & Health Sciences, Veterinary Science, Zoology

Category D

Computing & Information Systems, Engineering, Mathematics & Statistics, Modeling & Simulation, Nanotechnology, Physics & Geophysical Science, Quantum Science

Oral Presentations – Category A

Session A-I

Panel Members:

- 1. Chairperson: Prof. G.C. Samaraweera, Department of Agricultural Economics, University of Ruhuna
- 2. Dr. W. G. S. Manel Kumari, Department of Botany, University of Ruhuna

Convener: Mr. D. D. N. Sripal, Department of Botany, University of Ruhuna

Co-host: Ms. G. K. Mabula, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/65723503368?pwd=UzhqVFFVK3BzbnJ4N2I5MTV1K015UT09

Time	Abstract ID	Title
		Effect of Cow Urine-based Plant Extracts Against Maize Weevil (Sitophilus
11:00 am	A10	Zeamais) on Different Pulse Grains
		Niranjana R. F., Karunakaran S. and Nifflah M. R. F.
		Physicochemical and Functional Properties of Flours Obtained from Dioscorea
11:15 am	A20	Alata and Dioscorea Esculenta Yams Available in Sri Lanka
		Chiranthika N. N. G., Gunathilake K. D. P. P., and Chandrasekara A.
		Chemical, Physicochemical, Rheological Characterization and Antioxidant
11:30 am	A33	Properties of Malabar Spinach (Basella Alba) Seed Mucilage
		Sandaruwan N. K. H. and Gunathilake K. D. P. P.
		Effect of Nano-CuO and Nano-ZnO Micronutrient Fertilizers on Physiological
11: 45 am	A56	Parameters of Selected Rice (Oryza Sativa L.) Varieties
		Sandanayake C.L.T., Weerakoon, S., Somaratne S. and Karthikayan N.
		Screening of Rice Varieties for Bacterial Leaf Blight under Different Inoculum
12:00 pm	A32	Concentrations
12.00 pm		Sandamini W.G.S., Tharaka W.H.H., Dilhani N.H.L.T., de Silva S.Y.S.D.,
		Millawithanachchi M.C. and Vithanage M.U.A.
		Effects of Volatile Organic Compounds of Morinda Citrifolia L. ("Ahu") Leaves on
12:15 pm	A52	Second- Stage Juveniles of Meloidogyne Javanica.
		de Silva G.H.V.S. and Premachandra W.T.S. D

Session A-II

Panel Members:

1. Chairperson: Prof. A.L. Ranawake, Department of Agricultural Biology, University of Ruhuna

2. Prof. K. Masakorala, Department of Botany, University of Ruhuna

Convener: Mrs. Jayani Perera, Department of Botany, University of Ruhuna

Co-host: Mr. Isuru Wijesundara, Department of Botany, University of Ruhuna

Zoom link: https://learn.zoom.us/j/68682444510?pwd=KzRybVRDZ0RBaTB0UjcwSTZwK3ZVQT09

Time	Abstract ID	Title
11:00 am	A11	Characterization of Drought Resistance of Some Selected Traditional Rice Varieties of Sri Lanka Weerasekara W.B.M.I.I.T. and Munasinghe M.L.A.M.S.
11:15 am	A17	Identification of Selected Vegetable Seed-Associated Fungi and Their Susceptibility to Fungicides Jayarathna B. W. K. S. B., Rasara K. W. J., Wijesundara W.W.M.U.K., Athukorala A. D. S. N. P., Sooriyapathirana S. D. S. S., Priyantha M.G.D.L., and Gama-Arachchige N. S.
11:30 am	A24	Potassium Solubilizing Serratia Species for Growth Promo Jayasinghe J. A. S. G. and Athukorala A. D. S. N. P.
11:45 am	A34	Functional Properties of Averrhoa Bilimbi Aerial Parts and Silver Nanoparticles Synthesized using Its Fruit Extract Jayawardane K.M. and Gunathilake K.D.P.P
12:00 pm	A35	Bioactive Potential of Phlorotannins from Sargassum Turbinatifolium and The Effect of Encapsulation on Its Bioactivity Kaushalya K.G.D., and Gunathilake K.D.P.P.
12:15 pm	A54	Effect of Polyamines on Seed Germination of Tomato under Water Stress Madushani G.D.A. and Wimalasekera R.
12:30 pm	A41	Isolation and Characterization of Bacteriophages Infecting Pectobacterium Spp. causing Soft Rot in Carrots Naligama N. K. N. and Halmillawewa A. P.

Oral Presentations – Category B

Session B-I

Panel Members:

- 1. Chairperson: Prof. V. B. Bulugahapitiya, Department of Chemistry, University of Ruhuna
- 2. Dr. H. Manawadu, Department of Chemistry, University of Ruhuna

Convener: Dr. J. S. Hewage, Department of Chemistry, University of Ruhuna

Co-host: Mr. L.S.N.S. Lamahewage, Department of Chemistry, University of Ruhuna

Zoom link: https://learn.zoom.us/j/61831119802?pwd=Z2RjenNoamp0cm9KcFhhYTdaUnkwZz09

Time	Abstract ID	Title
11:00 am	B02	Positional Variation of Oils Extracted from the Stem of Ceylon Cinnamon (Cinnamomumzeylanicum Blume): Qualitative and Quantitative Comparison Wijeweera A. A., Hewage J. W., Wadumethrige S. H., Hettiarachchi S. R., and Jayasinghe G. G.
11:15 am	В08	Agroecologicaldependence of the Quantity of Phytochemicals in Barks of Ceylon Cinnamon, (Cinnamomumzeylanicum Blume) Wijeweera A. A., Madhushika, K.T.S, Wadumethrige S.H., Hewage J. W., Hettiarachchi S. R. and Jayasinghe G. G.
11:30 am	B11	Phosphate Solubilizing and PAH-Degrading Bacterial Isolates Associated with Kadol Kele Mangrove Naligama N. K. N., and Halmillawewa A. P.
11:45 am	B13	Preliminary Investigation of Culture Filtrates of <i>Mucuna Pruriens</i> Endophytic Fungi for the Presence of L-Dopa Yalini S. and Liyanaarachchie L.C.P.T.
12:00 pm	B17	Solvent-Free Microwave Assisted Synthesis of Oxindole Derivatives as Effective Antifungal Agents <u>Wijekoon H.P.S.K., Palliyaguru N.P.L.N., Gunasekara T.D.C.P., Fernando S.S.N.,</u> Jayaweera P.P.M., and Kumarasinghe K.G.U.R.
12:15 pm	B38	Polyaromatic Hydrocarbons (Pahs) Degradation Ability of Pseudomonas Stutzeri Isolated from Phyllosphere of Urban Areas in Sri Lanka <u>Dharmasiri R.B.N.</u> , Nilmini A.H.L, Undugoda L.J.S., Nugara N.N.R.N., Udayanga D. and Pathmalal M.M.
12:30 pm	B26	Effect of Agro-Ecological Variation on Growth and Cinnamon Oil Yield of Ceylon Cinnamon (Cinnamomum Zeylanicum Blume) Wijeweera A. A., Hewage J. W., Wadumethrige S. H., Hettiarachchi S. R. and Jayasinghe G. G.

Session B-II

Panel Members:

1. Chairperson: Prof. J. W. Hewage, Department of Chemistry, University of Ruhuna

2. Panel member: Prof. L. A. Panamgama, Department of Chemistry, University of Ruhuna

Convener: Dr. Y. M. A. L. W. Yapa, Department of Chemistry, University of Ruhuna

Co-host: Mr. Y. Sudusinghe, Department of Chemistry, University of Ruhuna

Zoom link: https://learn.zoom.us/j/67027984013?pwd=RlhwcHNtQ3g4bUU0cTFjNFFTZis1UT09

Time	Abstract ID	Title
11:00 am	B28	Scientific Investigation of Ayurvedic Formulation, "Nishadi Churnaya" for Its Antioxidant Capacity and Activity Towards Anti Glycation Pathways Manawadu H. C., Chathumalee M.A.D.D, Bulugahapitiya V.P. and Raigamkoralage R.
11:15 am	B29	Phytochemical Screening, Proximate Composition and Antioxidant Properties of Rhinacanthus Nasutus (Heen Aniththa) Jayasekara H.D., Fernando P.T.N. and Bulugahapitiya V.P
11:30 am	B31	Determination of Antioxidant, Anti-Bacterial, and Moisturizing Efficacy of Aloe Barbadensis Miller Hashani S.P.N., and Edirisinghe E.M.R.K.B.
11: 45 am	B33	Preliminary Study of Antioxidant Action of Sri Lankan Curry Powder Amarasekara E.A.P.T. and Kadigamuwa C.C.
12:00 pm	B34	Antioxidant Properties of Some Selected Medicinal Plants Samarakoon D.N.A.W., Siriwardhene M.A., Sirimuthu N.M.S., and Uluwaduge D.I.
12:15 pm	B36	Coccinia Grandis (L) Voigt Freeze Dried Powder: Phytochemical Fingerprints, Proximate Analysis and Nutritional Composition Wasana K.G.P., Attanayake A.P., Arawwawala L.D.A.M., Weerarathna T.P. and Jayatilaka K.A.P.W.

Session B-III

Panel Members:

1. Chairperson: Dr. M. Edussuriya, Department of Chemistry, University of Ruhuna

2. Panel member: Dr. C. N. Ratnaweera, Department of Chemistry, University of Ruhuna

Convener: Dr. W.K.K.D. Siriwardana, Department of Chemistry, University of Ruhuna

Co-host: Ms. K. K. D. M. P. Wijekoon, Department of Chemistry, University of Ruhuna

Zoom link: https://learn.zoom.us/j/61070856356?pwd=ZGhpMnovZ3hvT3Zub1R2RTJwOEdIdz09

Time	Abstract ID	Title
		Purification of Carbon Black Generated from Passenger Car Tyre Pyrolysis for Dry
11:00 am	B46	Rubber Industry
		Harindra T.N., Kithmini N.C.Y., Attanayake A., Hewage J.S. and Ranaweera A.S.
		Synthesis and Structural Characterization of Dinuclear Zinc Complex of N,N'-Bis(2-
11:15 am	B49	Pyrazolyl-4-Methylphenyl) Formamidinate
		Gunasena W.M.S.S., Ranaweera A.S. and Hewage J.S.
		Cobalt Codoped Silver-Zinc Oxide Micro-Particles for Photocatalytic Degradation
11:30 am	B03	of Textiles Dyes under Sunlight
		Perera G.L.M.O., Kalutharage N.K and Hewage J.W.
		DFT/TD-DFT Investigation of Linear and Nonlinear Optical Properties of
11:45 am	B16	Porphyrin-Bridged Push-Pull Ruthenium Complexes
		<u>Fernando W. K. B. S. T.</u> and Kodikara M. S
		Evaluation of Kaolin Clay and Palm Oil Boiler Fly Ash as an Adsorbent for
12:00 pm	B19	Removing Methylene Blue Dye in Wastewater
		Jayasinghe U.J. and Wijetunga S.
		Sysnthesis and Characterization of Succinyl Chitosan Nanoparticle and Study their
12:15 pm	B50	Applications in the Biomedical Field
		Hemantha S.H.G.I.S., Dananjaya S.H.S., Gangabadage C.S. and Yapa Y.M.A.L.W.

Oral Presentations – Category C

Session C-I

Panel Members:

1. Chairperson: Prof. N.J.de S. Amarasinghe, Department of Zoology, University of Ruhuna

2. Prof. K.B.S. Gunawickrama, Department of Zoology, University of Ruhuna

Convener: Dr. W. A. H. P. Guruge, Department of Zoology, University of Ruhuna

Co-host: Ms. N. Wijeweera, Department of Zoology, University of Ruhuna

Zoom link: https://learn.zoom.us/j/67770729475?pwd=ZEcwTkluSWFTNytsUll2Zzd1Uk5NUT09

Time	Abstract ID	Title
11:00 am	C12	The Evaluation of Quality of Life in Patients with Peripheral Neuropathy in Type 2 Diabetes Mellitus in Three Specialized Diabetes Centres in Sri Lanka Kariyawasam. B.D., Gunawardana. D.K., Herath.P.D. Salgado.S. Ranadeva.N.D.K. Gunarathna.I.E. and Kottahachchi.D.C.
11:15 am	C16	Comparison of Diagnostic Methods and Analysis of Socio-demographic Factors of Trichomonas Vaginalis Infection Herath H.M.S.P, Iddawela W.M.D.R. and Wickramasinghe W.D.S.J.
11:30 am	C30	Formulation of Optimized Dapsone Skin Cream for the Use of Acne Vulgaris Fathima R., Suraweera R.K. and Wickramaratne D.B.M.
11:45 am	C07	Standardization of Plectranthus amboinicus (Lour.) Spreng Aerial parts using phytochemical, physico-chemical and HPTLC parameters Silva P.D.S.A., Hapuarachchi S.D., Kodithuwakku N.D. and Perera P.K.
12:00 pm	C33	A Survey on Sand Flies in Selected Sites of Dickwella (Matara District), Sri Lanka Nayanani D.G.P., Sudarshani K. A. M., and Wegiriya H. C. E
12:15 pm	C34	Phylogeographic Relationships and Evaluation of Proximate Composition of Golden Trevally, Gnathanodon Speciosus (Forsskål, 1775) In Sri Lanka. Rupasinghe M.A.M. and Munasinghe D.H.N.M
12:30 pm	C22	Anthropometry and Vertical Jump Height of National Taekwondo Players <u>Dissanayake D.P.U.U</u> , Bandara D.A.S.D and Weerasinghe S.

Session C-II

Panel Members:

- 1. Chairperson: Prof. W.S.T.D. Premachandra, Department of Zoology, University of Ruhuna
- 2. Prof. R. Hettiarachchi, Department of Chemistry, The Open University of Sri Lanka

Convener: Mr. Dammika Wijekoon, Department of Zoology, University of Ruhuna

Co-host: Mr. Gihan Chathuranga, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/9699337854?pwd=bmVvQjRHMVd3ZFRJbTdVYlNhV0lxUT09

Time	Abstract ID	Title
11:00 am	C06	MEFV Gene Polymorphism and Gastric Microbial Diversity among the Dyspeptic Patients Presented to Endoscopic Clinic Colombo South Teaching Hospital, Sri Lanka. Weerasinghe G.G.Y.H, Gunasekara T.D.C.P, Weerasekera M.M. and Fernando S.S.N
11:15 am	C11	Investigation of Antioxidant, Anti-Inflammatory and Acetylcholinesterase Enzyme Inhibitory Activities of Ceylon Green Tea Gunarathne M.V.H.S., Sathya S., Jayasinghe L. and Amarasinghe N.R
11:30 am	C20	Determination of Antacid Potential of Aqueous, Ethanolic and Hexane extracts of Evolvulus alsinoides (L.) L. Ruberu T.I.S., Jayasuriya W.J.A.B.N., Arawwawala L.D.A.M., Suresh T.S., Palliyaguru L.N. and Jayaweera P.M.
11:45 am	C25	Development of Antioxidants Rich Herbal Tea Bags and Determination of the Effect of Infusion Conditions on Antioxidant Activities. Silva P.D.S.A. and Hettihewa S.K.
12:00 pm	C27	Formulation of a Novel Herbal Emulgel using Leea Indica (Burm.F.) Merr. (Burulla/Gurulla) Leaf Extract and Evaluation of In-Vitro Anti-Inflammatory and Antioxidant Activities Srilal T.L.I and Hettihewa S.K.
12:15 pm	C36	Antioxidant Activity of Mangifera Zeylanica Stem Bark of Different Extracts Gunawardana S.L.A., Sirimuthu N.M.S., Gunasekara T.D.C.P. and Siriwardhene M.A.
12:30 pm	C02	Nutritional Properties of Two Formulated Diets using Fisheries By-Products: An Alternative for Fish Meal in Fish Diets Premawansha K. K. K., Sæther B.S, de Silva M.P.K.S.K and Gunawickrama K. B. S.
12:45 pm	C28	Analysis of Phenolic Contents and In-Vitro Sunscreening Activity of Different Solvent Extracts Obtained from Nymphaea Nouchali (Nil Manel) Flower Hettihewa S. K, Thilakarathna P. A. B. M, and Dissanayake. A. S.
1:00 pm	C31	Short Term Variation in Liver Somatic Index, Erythrocyte Nuclear Abnormalities And Biliary PAH Metabolite Levels of Oreochromis Niloticus upon Experimental Exposure to Water-Borne Crud Piumali G.D.S.R, Gunawickrama S.H.N.P. and Gunawickrama K.B.S

Oral Presentations – Category D

Session D-I

Panel Members:

1. Chairperson: Prof. K. K. A. S. Yapa, Department of Physics, University of Ruhuna

2. Dr. K. P. S. Jayatilleke, Department of Physics, University of Ruhuna

Convener: Dr. N. T. Wickramasuriya, Department of Physics, University of Ruhuna

Co-host: Mr. K. A. S. Lakshan, Department of Physics, University of Ruhuna

Zoom link: https://learn.zoom.us/j/69141308323?pwd=ZUZxRlhyMm1LL3Zia2VxdWladHRPZz09

Time	Abstract ID	Title
11:00 am	D09	Electrodeposition of CdS Window Layer on ZnS Buffer Layer for Solar Cell Applications Madhuwanthi H. M. L. U., Mahanama G. D. K. and de Silva D. S. M.
11:15 am	D11	Development of a Low-Cost High-Resolution Multi Grating Spectrometer Controlled by Arduino Wijethunga M.V., Abeywickrama S.S. and Perera H.A.D.S.D.
11:30 am	D13	A Preliminary Study on Age-Based Formant Analysis of Sinhala Vowels Alwis P.H.A.S., Bodhika J.A.P., Ranatunga E.M. and Jayasekara L.A.L.W.
11:45 am	D17	Vein Graphite/TiO2 Based Composite Counter Electrode for Dye-Sensitized Solar Cells Senthuran S., Kumari J.M.K.W., Dissanayake M.A.K.L. and Senadeera G.K.R.
12:00 am	D30	Application of Cauli-Flower Shaped Polyaniline (PANI) and Tin Oxide (SnO2) Composite Counter Electrode for Dye-Sensitized Solar Cells Kumari J.M.K.W., Dissanayake M.A.K.L., and Senadeera G.K.R.
12:15 pm	D34	The Photovoltaic Performance of CdS Quantum Dots Sensitized Solar Cell using Ag/TiO2 Photoanode Sandamali W., Senadeera G.K.R., Dissanayake M.A.K.L., Jaseetharan T., Perera V.P.S., Rajendra J.C.N., Karthikeyan N and Wijenayaka L.A.
12:30 pm	D61	Gel-Polymer Electrolytes Based on Poly (Methyl Methacrylate) Host Polymer for Sodium-Ion Rechargeable Batteries Jayamaha J.H.T.B., Jathushan V., Rajakaruna R.P.P.D., Vignarooban K., Sashikesh G. and Velauthamurty K.
12:45 pm	D67	Sound Absorptive Behavior of Coleus Forskohlii: Plectranthus Scutellarioides Amarasingha N. D., Bodhika J.A.P, Dharmaratna W.G.D and Jayatissa L. P.
1:00 pm	D70	Improving the Performance of the Photocatalytic Activity of Cu And S Co-Doped Tio2 Nanoparticles Kondarage Y.G. and Senarathna K.G.C.

Session D-II

Panel Members:

- 1. Chairperson: Prof. P.A. Jayantha, Department of Mathematics, University of Ruhuna
- 2. Dr. B.G.S.A. Pradeep, Department of Mathematics, University of Ruhuna

Convener: Dr. K.D. Prasangika, Department of Mathematics, University of Ruhuna

Co-host: Dr. H.L. Jayatileke, Department of Mathematics, University of Ruhuna

Zoom link: https://learn.zoom.us/j/68739718950?pwd=UmxaK1pkYXFwVUc5T0FpM1QzT1JWQT09

Time	Abstract Id	Title
		A Modified Public Key Cryptosystem Based on the Elgamal Algorithm
11:00 am	D21	Athurugiriya K.A.P.S. and Ranasinghe P.G.R.S.
		Application of the Method of Directly Defining the Inverse Mapping to Fingering
11:15 am	D26	Phenomenon in the Oil Industry
		Sahabandu. C.W., Karunarathna.W.H.D.T. and Dewasurendra M.
		Modeling and Forecasting Monthly National Coconut Production in
11:30 am	D28	Sri Lanka Using Time Series Analysis
		Wickramarathne R.H.M and Chandrasekara N.V.
		Explanatory Analysis: Factors That Contribute to the Happiness of Women, Who
11:45 am	D35	Lead Households in Jaffna District
		<u>Vethanayahan V.</u> and Abeygunawardana R.
		An Application of Wavelet Based Density Estimation in S&P SI20 Index Of
12:00 pm	D55	Colombo Stock Exchange (CSE)
		Ratwatte A.M., Abeyratne M.K. and Geeganage S.D.L.
		On Some Properties of the Regular Multinomial Model and Algebraic Multinomial
12:15 pm	D73	Model Associated with Biochemical Reaction Networks
		Yapage N
12:30 pm	D10	Modeling Exchange Rate Volatility and Detection of its Attributes
12.30 μπ	D10	Munasinghe P.C. and Appuhamy P.A.D.A.N.
		A Method to Compute Unitaries Representing Reducible Minimal Inner Toral
12:45 pm	D43	Polynomials using Direct Sum
		<u>Dissanayake C.S.B.</u> and Wijesooriya U.D.
1:00 pm	D12	Chromatic Polynomial of Snow Graph
1.00 pm	D12	Kapuhennayake K.M.P.G.S.C. and Perera A.A.I.

Session D-III

Panel Members:

1. Chairperson: Mr. A. Lorensuhewa, Department of Computer Science, University of Ruhuna

2. Dr. W. A. Indika, Department of Computer Science, University of Ruhuna

Convener: Dr. W. A. Mohotti, Department of Computer Science, University of Ruhuna

Co-host: Ms. H.D.S. Shashikala, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/64622310254?pwd=L1k3YUUyckVCSmk0NVVSbWpEbmg3QT09

Time	Abstract Id	Title
11:00 am	D04	Visual Speech Recognition for Sinhala Language using CNN
11.00 am		Jayarathne W.M.U., Perera W.A.S.C. and Ketheesan T.
		Comparative Study on Machine Learning Performances in Recognitioning Off-Line
11:15 am	D39	Tamil Handwritten Signatures using Structure and Gradient Features
		Bharathramanan G., Ramanan M. and Thadchanamoorthy S.
		A Biomedical Image Processing Approach to Detect Diabetic Retinopathy using
11:30 am	D15	Convolutional Neural Network (CNN)
		<u>Uthpala H.A.T.</u> and Rathnayaka R.M.K.T
		Translation of Sri Lankan Sign Language to Text using Hand Keypoints and Image
11:45 am	D44	Processing
		Perera L.L.D.K. and Jayalal S.
		RNN and LSTM Based Approach to Predict the Severity of Traffic Accidents of
12:00 pm	D50	Highway System: A Case Study from Southern Expressway, Sri Lanka.
		<u>Dhananjaya H.W.T.</u> and Rathnayaka R.M.K.T.
		Artificial Neural Network Approach for Real-Time Density-Based Traffic Signal
12:15 pm	D66	Control System
		Chandrasekara W.A.C.J.K., Rathnayaka R.M.K.T, and Chathuranga L.L.G
12:20 nm	D08	Defining A Generic Service Description For Restful Web Services
12:30 pm	אטע	Senevirathne S.M. and Jeewanie J.A.

Poster Presentations - Category A

Session A-I

Panel Members:

1. Chairperson: Dr. K. K. U. G. Hemamali, Department of Botany, University of Ruhuna

2. Dr. K.M.C. Fernando, Department of Crop Science, University of Ruhuna

Convener: Ms. S.Y.S.D. De Silva, Department of Botany, University of Ruhuna

Co-host: Mr. G. M.T. Ranjana, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/61224131895?pwd=dmJoRUdjZWdxeWJzSk5jUDZ0S2k5UT09

Time	Abstract ID	Title
2:00 pm	A08	Combined Effect of Leaf Chlorophyll and Anthocyanin Content on the Overall Aesthetic Appearance of Coleus (Plectranthus Scutellarioides (L.) R. Br) Var. 'Velvet Red' under Four Different Light Levels Kodithuwakkuge V.N., Beneragama C.K and Krishnarajah S.A
2:10 pm	A21	Salinity Tolerance Capacity of Chlorococcum Sp. Isolated from Wahawa Geothermal Springs in Sri Lanka Madushani K.G.P., Athukorala A.D.S.N.P., and Gama-Arachchige N.S.
2:20 pm	A22	Assessment of Different Inoculation Methods for Early Screening of Irradiated Kolikuttu Banana for Fusarium Wilt Shirani D.A., Niroshani K.A.C., Abeysinghe S. and Abeysinghe P.D.
2:30 pm	A28	Naturally Sourced Bioactives Potential to Combat Oxidative Stress and Reduce the Risk of Chronic Diseases. Case Study Sri Lanka, Edible Flowers Ganesamoorthy J., Gunathilake K.D.P.P. and Ranaweera K.K.D.S.
2:40 pm	A47	Development and Evaluation of the Quality of a Ready to Serve (RTS) Drink using Sea Lettuce and Annona Muricata (Custard Apple) Wickramasinghe S.M.D.C.K, Dayananda T.G, and Jayamanne V.S
2:50 pm	A50	Effects of Excess Iron (Fe) on Seed Germination and Early-Seedling Growth of Five Selected Low Land Rice (Oryza Sativa L.) Varieties Mudalige H.M.M.Y. and Masakorala K.
3:00 pm	A53	Investigation of the Potential of Piper Chuvya as a Healthy Alternative for Tobacco in Cigar (Bidi) Hettiarachchi H.A.M.S., Sripal D.D.N., Gunasekara R.D.A., and Yapa Y.M.A.L.W
3:10 pm	A19	Optimization of a Standard Molecular Protocol for Amplification of Ctsk Gene Responsible for the Disease Pycnodysostosis: A Preliminary Study Madubashetha H, Cooray R, Wickramasinghe P.D.S.U, Kandambi G, Moulana F. M. T., and de Silva N.
3:20 pm	A43	Factors Affecting Adaptation of Crop Diversification by Paddy Farmers in 'Pavatkulam' Irrigation Scheme, Northern Province, Sri Lanka Banu A.S., Somaratne S. and Weerakoon S. R.
3:30 pm	A45	Safe Use of Pesticides – Investigating the Knowledge Gap of Piper Nigrum Pepper Farmers in Kandy District. Abeywickrama U. L. M., Widanapathirana C.U. and Herath H. M. U. N.

3:40 pm	A37	In Vitro Plantlet Regeneration of Apple (Malus Domestica) from Field Grown Plants in Sri Lanka Samanmalie L.G.I., Waidyaratne S.M., Mallika E.G.A.R., Munasinghe U., and Lakmali D.L.D.
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Session A-II

Panel Members:

- 1. Chairperson: Dr. P.L. Nilantha Lakshman, Department of Food Science and Technology, University of Ruhuna
- 2. Dr. K. S. S. Atapaththu, Department of Limnology and Water Technology, University of Ruhuna

Convener: Dr. H. L. K. Sanjaya, Department of Limnology and Water Technology, University of Ruhuna

Co-host: Ms. H.G.S. Priyangani, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/66102332024?pwd=R1NoWmkxZWExS1ZxbmtRNUd0VjE1UT09

Time	Abstract ID	Title
2:00 pm	A03	Evaluation of the Chemical Properties, Physical Properties and Sensory Attributes of Cinnamon (Cinnamomum Zeylanicum Blume) Oleoresin Incorporated Cookies
		Ranatunga B.U., <u>Wijeweera A.A.</u> and Fernando A.Y.L.
		Risk Factors on Welfare of Dairy Cows and Calves in Galle And Matara Districts of
2:10 pm	A06	Sri Lanka
2.10 μπ	A00	Senaratna D., Yashodha K.H.H, Weerasinghe W.P.C.G., Eranda R.A.D. and
		Samarakone T.S.
		Development and Storage Studies of Aloe Vera-Sour Orange based Functional RTS
2:20 pm	A16	Drink Flavored with Ginger
		Mahendran T., Premakumar K. and <u>Deviahayshini S.</u>
		Effects of Sodium Chloride Induced Salt Stress on Yield and Selected Physiological
2:30 pm	A23	Attributes of Br
		Nahila M.A.F. and <u>Mahendran S.</u>
		Exploring the Constraints Faced by Stakeholders in the Value Chain of Organic
2:40 pm	A30	Fertilizer in the North-Western Province of Sri Lanka
		Jayakodi J.A.S.N.S., Silva N.P.V., Jayasinghe-Mudalige U.K. and Jayathilake H.A.C.K.
		Identification of Optimum Preculture Conditions Prior to Cryopreservation of
2:50 pm	A36	Innala (Solenostemon Rotundifolius (Poir.) J.K. Morton)
		Madhuwanthi M.L.D.I., Eeswara J.P. and Edirisinghe E.S.C.
		Application of Hibiscus Rosasinensis Leaf Mucilage with Gelatin as an Edible
3:00 pm	A15	Coating to Extend the Shelf Life of Psidium Guajava
		Deviahayshini S. and Mahendran T.
		Bioprospecting of Indigenous Lactic Acid Bacteria Abundant in Buffalo Curd as a
3:10 pm	A40	Starter Culture
3.10 p	7110	Gunathunga C.J., Undugoda L.J.S., Nilmini A.H.L., Nugara N.N.R.N., Udayanga D.,
		and Pathmalal M.M.
		The Need for More Research on Mangroves In Sri Lanka; A Review on Mangrove
3:20 pm	A13	Microbiology, Genetics and Physiology
3.20 p		Abeysinghe N.K., Kodikara K.A.S., Hemamali K.K.U.G., Hettiarachchi S., and Jayatissa
		L.P

3:30 pm	A18	Development and Quality Evaluation of Nutritionally Enriched Bread with Pumpkin (Cucurbita Moschata) Flour Hettiarachchi K.A.N.S., Mahendran T. and Hettiarachchi D.N.
3:40 pm	A51	The Preliminary Study on Effect of Music on the Shoot Development of Chilli Plant: Capsicum Annuum L. Hemamali K.K.G.U., Rathnayake R.R.M.U.N.B., Karunarathne D.S., Rathnayake G.U.K, and Amarasingha N.D.

Poster Presentations – Category B

Session B-I

Panel Members:

1. Chairperson: Dr. G. B. C. Sanath, Department of Chemistry, University of Ruhuna

2. Panel member: Dr. H. D. Jayasekara, Department of Chemistry, University of Ruhuna

Convener: Dr. K.K.K.D. Siriwardena, Department of Chemistry, Univeristy of Ruhuna

Co-host: Ms. R M. K. A. Rajapaksha, Department of Chemistry, Univeristy of Ruhuna

Zoom link: https://learn.zoom.us/j/63683339912?pwd=SjlxdzJPSnYvTkZsbE05OFlOaVVyUT09

Time	Abstract ID	Title
		Development of the Low-Cost Cotton Fabric Based Electroanalytical Device for
2:00 pm	B07	Cadmium Determination
		Kothalawala R.M. and Kaumal M.N.
		Determination of Measurement Uncertainty in Chloride Analysis in Groundwater
2:10 pm	B24	by APHA 4500Cl- Method
		Anoja N. and <u>Kunaseelan S.</u>
		Quantification of Heavy Metals in Some Rice Varieties of South Korea and Sri
2:20 pm	B30	Lanka and Assessment of Potential Health Risks to Human
		Senarathne E. M. N. S., Kim T.Y. and Edirisinghe E. M. R. K. B.
		Removal of Phenol from Synthetic Wastewater using Ag Nanoparticles Loaded on
2:30 pm	B45	Gamboge (Garcinia Gummi-Gutta L.) Based Activated Carbon
		Nadeeshani M.L.N. and Edussuriya M
2:40 pm	B47	TiO ₂ Coated Glass Beads for Photocatalytic Degradation of Methylene Blue
2:40 pm	D47	Peramune P.A.D.L., Pathirana H.M.K.K. and Rajapakse M.A.
		Removal of Fluoride and Hardness from Natural Water using KOH Activated
2:50 pm	B39	Carbon
		Sewwandi G.A.S., Rathnapala A.A.A.W.K. and Perera A.D.L.C.
3:00 pm	B09	Fluorescence Spectroscopy to Identify Quality of Coconut Oil and Sunflower Oil
3.00 pm	609	Nilasha K.P.C., Sirimuthu N.M.S. and Nisansala H.M.D.

Session B-II

Panel Members:

- 1. Chairperson: Dr. S. Wanniarachchi, Department of Chemistry, Univeristy of Ruhuna
- 2. Dr. W. S. Hemalika, Department of Chemistry, Univeristy of Ruhuna
- 3. Dr. M.P. Kumara, Faculty of Fisheries and Ocean Science, Ocean University of Sri Lanka

Convener: Dr. K. B. Jayasundera, Department of Chemistry, University of Ruhuna

Co-host: Ms. B. M. N. Lakmini, Department of Chemistry, Univeristy of Ruhuna

Zoom link: https://learn.zoom.us/j/69695999505?pwd=TVFYSUdlb3lCQWJ3UHVyS1dYU1RlQT09

Time	Abstract ID	Title
2:00 pm	B15	Vulnerability Assessment of the Coastal Zone of Sri Lank to Sea-Level Rise Scenario; A GIS Based Study Rajapaksha M., Madarasinghe S.K., Dissanayake N.P., Kodikara K.A.S., and Jayatissa L.P.
2:10 pm	B22	Extraction, Characterization of Essential Oil in Leaf Extract of Toddalia Asiatica. Appuhamy H. D. C. P. M., Madushan P. G. L., Wijekoon W. M. C. D., Nalika A. P. K., and Kalutharage N. K
2:20 pm	B35	Homeostatic Model Assessment of a Sri Lankan Polyherbal Mixture in Streptozotocin Induced Diabetic Rats Sampath S. N. T. I., Jayasinghe J. M. S., Attanayake A.P. and Karunaratne V.
2:30 pm	B20	Synthesis and Characterization of Carboxylic Acid Derivatives of Chitosan for Production of Nano Fibers Kalutharage N. K., and Akalanka L. M. S.
2:40 pm	B41	Survival of Skin Resident Bacterial Flora (SRBF) in The Presence of Facial Cleansers <u>Balasooriya B.A.Y.B.</u> and Rathnayake I.V.N.
2:50 pm	B48	Effect of Glycerol and Chitosan on Physicochemical and Microstructural Properties pf Kithul (Caryota Urens) Starch Panamgama L.A. and Priyankara P.I.K.

Poster Presentations – Category C

Session C-I

Panel Members:

1. Chairperson: Prof. H.C.E. Wegiriya, Department of Zoology, Univeristy of Ruhuna

2. Dr. K.R. Gamage, Department of Fisheries and Aquaculture, University of Ruhuna

Convener: Mr. Dammika Wijekoon, Department of Zoology, Univeristy of Ruhuna

Co-host: Mr. B. H. Saranapala, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/63239150633?pwd=VEdiSHUzWmVmVDJGeWlmelVoWksxUT09

Time	Abstract ID	Title
		An Investigation of Some Factors Associated with Injuries of University Rugby
2:00 pm	C04	Players in Sri Lanka
		Silva K.P.I., Weerasinghe S. and Attanayake D.
		Sports Nutrition Knowledge and Dietary Habits of Sri Lanka National-Level
2:10 pm	C05	Basketball Athletes
		Ishani K.A. A and Weerasinghe S.
		Barriers Related to Delay in Seeking Medical Advice among Patients With Chicken
2:20 pm	C09	Pox: A Hospital Based Study
2.20 pm	203	Amarasena N.C. K, Wickramasinghe W.A.A.S, Munasinghe M.A.L.T, Athukorala
		Senanayake K.I.D.F and Munidasa K.G.P.K
	C10	Demographic Transition in Sri Lanka; An Analysis of Population and Vital Statistics
2:30 pm		1981 -2019.
		Kumari H.M.N.S. and Dharmaratne S.D.
	C13	Investigation of Physical Fitness and Body Composition Profiles of Elite Karate
2:40 pm		Kumite Athletes in Sri Lanka
		Nawarathna H.M.D.S.K., Bandara J.A.S.D., Weerasinghe S., and Adikari A.M.G.C.P.
		Antifungal Activity of P.Guajava, Musa Sp. and V.Radiata against Candida
2:50 pm	C18	Albicans
		Fernando M.M.M.R, Sihara W.H, <u>Wickramanayake H.M.D.N,</u> Samarakoon D.N.A.W
		and Siriwardhene M. A.
2.00	C15	Study of the Effectiveness of 6 Weeks Upper Body Strength Training Programme
3:00 pm		on Upper Body Strength of Baseball Players in Sri Lankan Tri Forces.
		Yasas D.L.C., Sirimuthu N.M.S., Fernando A.L.K.R.
		Price, Availability and Affordability of Cardiovascular Medicines: A Cross Sectional
3:10 pm	C29	Survey of Selected Community Pharmacies in Galle Municipal Council and Bope – Poddala MOH Areas
		Jayarathne M.L.N.P., Gunawardena S. and Prasadi G.A.M. Perceptions of Beche-De-Mer Market Actors on Sri Lanka Standard Specification
2:20 pm	C01	(2018)
3:20 pm	COI	1
		Tharani K. and de Croos M.D.S.T

Session C-II

Panel Members:

- 1. Chairperson: Prof. M.P.K.S.K. de Silva, Department of Zoology, University of Ruhuna
- 2. Prof.D.H.N. Munasinghe, Department of Zoology, University of Ruhuna
- 3. Dr. H.B. Asanthi, Department of Limnology and Water Technology, University of Ruhuna

Convener: Ms. N. Wijeweera, Department of Zoology, University of Ruhuna

Co-host: Ms. W.K. Shajith, Department of Computer Science, University of Ruhuna

Zoom link: https://learn.zoom.us/j/67425737157?pwd=MTNDaXNnSE9aa2d1amdtTGF2VjRJdz09

Time	Abstract ID	Title
2:00 pm	C19	Investigation of Physico-Chemical and Phytochemical Properties of Different Extracts of Eclipta Prostrata (Linn.) Grown in Sri Lanka Risfa M.S., Jayasuriya W.J.A.B.N., Arawwawala L. D. A. M. Hettiarachchi P.L. and Suresh T.S.
2:10 pm	C23	The Effect of Upper and Lower Limb Fat Percentages on the Performance of Butterfly Stroke in Under-19 National Level Male Swimmers Perera A.H.C. and Manawadu K.P.
2:20 pm	C24	The Effect of a 24-Session Pilates Training Programme on Core Strength, Leg Power and Flexibility of School-Level Sprinters Srimali I. G. I. and Weerasinghe S.
2:30 pm	C26	In Vitro Antioxidant Activity of Different Solvent Extracts Obtained from Leea Indica (Burm.F.) Merr (Burulla) Leaves Grown in Sri Lanka <u>Srilal T.L.I.</u> and Hettihewa S.K.
2:40 pm	C32	The Diversity and Abundance of Butterflies in Selected Edge Habitats of Dandeniya Aparekka Reserved Forest Sachithra R.R.S., Guruge W.A.H.P and Wegiriya H.C.E
2:50 pm	C14	The Antioxidant Potency of the Methanolic Leaves Extract of Pancratium Zeylanicum L. (Wal Lunu) Dunukara D.M.J.D.K., Herath H.M.N.U.S., Kanampella P.A.A.I., Samarakoon D.N.A.W. and Uluwaduge D.I.
3:00 pm	C17	Establishment of a Cord Blood Bank and Possibility of using Genetically Regulated Hematopoietic Stem Cells, through Transcription Factor Mediated Differentiation System: An Internet-Based Study Shankar A, Kandambi G, Madubashetha H, Wickramasinghe P.D.S.U, Cooray R, De Silva N. and Sumathipala A.
3:10 pm	C21	Comparative evaluation of weight variation, hardness, friability, disintegration, and dissolution parameters of commercially available atorvastatin tablets marketed in Galle, Sri Lanka Siriyananda A.M.C.H. M., Gunawardena S., Karunanayaka K.D.S.V. and Sandamali L.L.

Poster Presentations - Category D

Session D-I

Panel Members:

- 1. Chairperson: Prof. Leslie Jayasekara, Department of Mathematics, University of Ruhuna
- 2. Prof. G. D. K. Mahanama, Department of Physics, University of Ruhuna
- 3. Dr. J. A. P. Bodhika, Department of Physics, University of Ruhuna
- 4. Dr. D.M. Samarathunga, Department of Mathematics, University of Ruhuna

Convener: Dr. M.C.S. Fernando, Department of Mathematics, University of Ruhuna

Co-host: Ms. K.G.P. Hansani, Department of Mathematics, University of Ruhuna

Zoom link: https://learn.zoom.us/j/68942029153?pwd=MCsyYUV5STFCbFhPWkdPeEVTQmFuZz09

Time	Abstract ID	Title
2:00 pm	D05	Application of Assignment Problem for Absenteeism Management in an Apparel Industry Sajuran K. and Narththanah S.
2:10 pm	D06	The Chromatic Polynomial of the Scorpion Graph. Weerarathna M.D.M.C.P, Athapattu A. M. C. U. M, and Perera A.A.I
2:20 pm	D14	Time Series Model to Forecast Monthly Average White Raw Rice Prices in Colombo, Sri Lanka Fernando W.H.H., Jayalath P.M.S.C., Premarathne R.M.S.M. and Chandrasekara N.V.
2:30 pm	D18	An Efficient Power-Line Interference Removal System for Electrocardiograms. <u>Ajward A.M.</u>
2:40 pm	D20	A Novel Cryptosystem using Continued Fractions Chathurangi H. M. M. and Ranasinghe P. G. R. S.
2:50 pm	D23	An Efficient Numerical Approximation to Poisson Problem in Two Dimensions Wickramasinghe C.D
3:00 pm	D31	A Two-Dimensional Numerical Study on the Development of Two-Phase Flow Inside a Vertical Solar Collector Pipe Imposed by a Homogeneous Heat Flux Ranatunga E.M., Hettiarachchi N. K., Abeyratne M. K. and Fernando M. C. S.
3:10 pm	D37	A Novel Cryptographic Scheme on a Variation of the Hill Cipher Ranasinghe P. G. R. S. and Wijesekara W. M. P. R.
3:20 pm	D60	Markov Chain Model for Predicting the Share Price of Canadian Stock Market Thanusika T. and Anuthrika T.
3:30 pm	D68	A Study on National Economy using a Higher Order Dynamical System Sewwandi M.D.S. and Shanthidevi K.C.N.
3:40 pm	D74	Fabrication of a Dual Sensor Hot-Wire Anemometer to Measure Wind Direction <u>Dissanayaka I.S.</u> and Jayathileke K.P.S

Session D-II

Panel Members:

1. Chairperson: Dr. J. A. Jeewanie, Department of Computer Science, University of Ruhuna

2. Dr. C. T. Wannige, Department of Computer Science, University of Ruhuna

Convener: Mr. P. D. T. Chathuranga, Department of Computer Science, University of Ruhuna

Co-host: Mr. P.H.P. Nuwan Laksiri, Department of ICT, University of Ruhuna

Zoom link: https://learn.zoom.us/j/64071553266?pwd=MFdPUDVNZG83c3FzMnAyM2tyTkxvUT09

Time	Abstract ID	Title
2:00 pm	D07	Handwritten Character Recognition using Convolutional Neural Network in the Context of Sinhala Language Janotheepan M., Vasanthapriyan S. and Banujan K.
2:10 pm	D27	A Study on How Consumer Preferences can be used to Improve Content-Based Recommendations Rajapaksha R.M.P.R.D and llayperuma T.
2:20 pm	D32	An Innovative Approach in Offline Sinhala Handwritten Character Recognition using Feature Extraction Techniques and SVMs Wickramaarchchi M.G.U.R.D., Bharathramanan G., Ramanan M. and Thadchanamoorthy S.
2:30 pm	D38	Enhanced Agriculture Ontology with Images to Effectively Retrieve Pest and Disease Knowledge Wilson R.S.I., Indika W.A. and Goonetillake M.D.J.S.
2:40 pm	D47	A Machine Learning Approach for Rhythmic Analysis of North Indian Classical Music Hettiarachchi B., Charles J., and Lekamge L.S.
2:50 pm	D48	Sinhala Speech Recognition using Hidden Markov Based Model and Deep Neural Networks Based Model for Number Sequences Azir M.Y.M, Lorensuhewa S.A.S. and Kalyani M.A.L.
3:00 pm	D24	Conversion of the Convolutional Neural Network implemented on Keras API to plain Python script Alahakoon A.G.P.D., Amaradasa H.D.S., Prasadh K.V.S., Vidanagamachchi S. M., Wickramage N.M. and Mahanama G.D.K.
3:10 pm	D71	User-Friendly Interface Design to Disseminate Best Agricultural Practices Shanadi A.T., Samaraweera G.C., Wathugala D.L, Indika W.A., and Madushika M.K.S. and Gunawardana D.A.Y.K.

FSPI-SEDRIC Project Session

Panel members:

- 1. Chairperson: Dr. N. Rathnayake, Earth & Ocean Sciences, School of Natural sciences, National University of Ireland, Galway (NUI Galway)
- 2. Dr. M.P. Kumara, Faculty of Fisheries and Ocean Science, Ocean University of Sri Lanka, Tangalle, Sri Lanka

Zoom link: https://learn.zoom.us/j/65382381454?pwd=OG85YVV6VDlkeFJacytSb0hWSGRJdz09

Time	Title
2:00 pm	Introduction to SEDRIC project
2.00 pm	Mathevet R.
2:15 pm	Paleoenvironment and palynology
2.13 pm	Krishnamurthy A. and Premathilake R.
2:30 pm	Tropical dry forest and Recent land cover change
2.50 pm	Jayasingam T. and Andrieu J.
2:45 pm	Blue carbon and ecological restoration and protected areas
2.45 pm	Jayatissa L.P., Kodikara K.A.S. and Benabou S.
3:00 pm	Diaspora and tourism
3.00 pm	Silva T. and Goreau A.
3:15 pm	Livelihood well being
3.13 pm	Bautes N.
3:30 pm	Interdisciplinary talks
3.50 pm	Andrieu J. and Mathevet R.
3:45 pm	Conclusion
3. 4 3 piii	Andrieu J.