



RISTCON 2022

**9th Ruhuna International Science and Technology
Conference**

19th January 2022

**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 Dr. B. G. S. A. Pradeep,
Chairperson/RISTCON 2022

08:30 am Address by Professor P. A. Jayantha,
Dean, Faculty of Science, University of Ruhuna

08.45 am Keynote Address by Professor Saman Halgamuge, School of
Electrical, Mechanical and Infrastructure Engineering, The
University of Melbourne, Australia
“Can 21st Century AI conquer the challenges in a brave new post
pandemic World?”

09:45 am Address by the Chief Guest Senior Professor Sujeewa
Amarasena,
Vice Chancellor, University of Ruhuna

10:00 am Vote of Thanks by Dr. M. S. Kodikara,
Joint Secretary/RISTCON 2022

10:10 am National Anthem

Oral and Poster Sessions Program Summary

Time	Topic
11: 00 am– 1:00 pm	Oral Sessions via Zoom
1:00 pm – 2:00 pm	Lunch Break
2:00 pm – 2:30 pm	Plenary Talk I “Modern energy landscape” Dr. Ranga Dinesh Kahanda Koralage University of Southampton, UK https://learn.zoom.us/j/66253522460?pwd=aE5Uc1k5RUN4NmZKcDYyT1RlckZMQT09
2:00 pm – 2:30 pm	Plenary Talk II “Organic agriculture – pros and cons in agricultural production in Asia “ Dr. Jay Prakash Verma Banaras Hindu University, India https://learn.zoom.us/j/65202036557?pwd=ZlR3LzArOTZtdFYxMlVjN2pWcWUxZz09
2:30 pm – 4:00 pm	Poster Sessions via Zoom
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. Lanka Ranawake
2. Mr. R. D. A Gunasekara

Convener: Dr. Jayeni Perera

Co-Host: Ms. Lakshika Jayarathna

Zoom link: <https://learn.zoom.us/j/66860170084?pwd=emF0Q3ZLeW94aDR6ekxKMEV2cXlUZz09>

Time	Abstract ID	Title
11:00 am	A03	PXRD Analysis of Usnic Acid in Five Selected Lichen Species from Sri Lanka <u>Suriyaarachchi H.</u> , Athukorala A. D. S. N. P. and Beligala B. A. D. H.
11:15 am	A11	Optimization of Polyphenol Extraction from Hibiscus <i>rosa-sinensis</i> Flowers <u>Janarny G.</u> , Gunathilake K. D. P. P. and Ranaweera K. K. D. S.
11:30 am	A20	<i>In vitro</i> Induced Mutagenesis in the Calli Derived from Black-Gold Snake Plant; Sansevieria trifasciata Var. Laurentii compacta <u>Kulathunge W. G. C. D. K.</u> , Chathuranga H. L. T. S., Abeysinghe P. D. and Silva S. Y. S. D.
11: 45 am	B13	Aggregated Adult-Recruit Spatial Pattern of Shorea Species Explained by Dispersal Limitation Process <u>Jayasinghe G. J. M. S. R.</u> , Ediriweera E. P. S. K., Wiegand T. and Wijekoon P.

Session A-II

Panel Members:

1. Chairperson: Prof. Nalika Priyanwada Ranathunga
2. Dr. S.R. Amarasinghe

Convener: Ms. K.G. Piyumika Madushani

Co-Host: Ms. K.W.J. Rasara

Zoom link: <https://learn.zoom.us/j/65219325244?pwd=aDQwZENqMUU4cTN0b2prQ2tHQU50QT09>

Time	Abstract ID	Title
11:00 am	A04	Effect of Rate and Split Application of Fertilizer on Growth and Yield Performances of <i>Brassica oleracea</i> Var. Botrytis Under IoT-Based Protected House in Low Country Wet Zone of Sri Lanka <u>Karunaratne W. M. A. M.</u> , Subasinghe S., Kumarasinghe H. K. M. S., Adikaram K. K. L. B. and Piyaratne M. K. D. K.
11:15 am	A19	Red Mold Rice Water Extracts to Inhibit Adipogenesis <i>In vitro</i> <u>Wanninaika I. P.</u> , Chamari H., Perumpuli P. A. B. N. and Kaumal M. N.
11:30 am	A23	Standardization of Dehydration Techniques for Preservation of Selected Ornamental Foliage <u>Pavithra P.</u> , Selvaskanthan S., Raveenthira V. and Sivachandiran S.
11:45 am	A25	Selection of Carrier Matrix for Bacteria-Mediated Bioremediation in Aquatic Environments <u>Randima G. W. A. P.</u> , Masakorala K., Yapa Y. M. L. A. W. and Widana Gamage S. M. K.

Oral Presentations – Category B

Session B-I

Panel Members:

1. Chairperson: Prof. J. W. Hewage
2. Dr. N. K. Kalutharage

Convener: Dr. C. N. Rathnaweera

Co-Host: Mr. Yohan Sudhusinghe

Zoom link: <https://learn.zoom.us/j/69899671222?pwd=MFJ1Rk1vL25TNTZaU0kydUF1a0RWZz09>

Time	Abstract ID	Title
11:00 am	B01	Gold Complexes of a Bulky Bipyridine Ligand <u>Perera S. D.</u>
11:15 am	B08	Electrocoagulation for Chromium Removal in Simulated Water: Response Surface Methodology <u>Chandima D. S.</u> , Halpegama J. U. and Herath A. M. C.
11:30 am	B10	Biodegradability and Plasticizing Effect of Sorbitol and Citric Acid on Cassava Starch Edible Films <u>Nilmini W. A. S.</u> and Panamgama L. A.
11:45 am	B11	Characterization of Microplastics in Selected Commercial Marine Fishes in Sri Lanka <u>Perera W. B. A. M.</u> , Dissanayake P. A. K. N., De Silva P. M. C. S, Kumara P. B. T. P.
12:00 pm	B17	Silica Extraction and Chemical Analysis of Rice Husk in Sri Lanka <u>Kumari G. R. D. S.</u> and Ratnaweera C. N.

Session B-II

Panel Members:

1. Chairperson: Prof. L. A. Panamgama
2. Dr. A. S. Ranaweera

Convener: Dr. Y. M. A.L.W. Yapa

Co-Host: T. N. Harindra

Zoom link: <https://learn.zoom.us/j/61681105184?pwd=T214SmFjb0k3eGR5UHZHREwza0tyUT09>

Time	Abstract ID	Title
11:00 am	B15	Antidiabetic Mechanisms of the Hexane Extract of an Ayurvedic Polyherbal Mixture in Diabetic Rats: A Reflection on Enzyme Activities of Antioxidant and Carbohydrate Metabolism Pathways <u>Sampath S. N. T. I., Jayasinghe J. M. S., Attanayake A. P. and Karunaratne V.</u>
11:15 am	B22	Phytochemical Profile and <i>In Vitro</i> Sun Protective Activity of <i>Wrightia antidysenterica</i>, <i>Ipomoea pescaprae</i> and <i>Ipomoea aquatica</i> Flower Extracts. <u>Paranamana V. S., Jayasekara H. D., Bulugahapitiya V. P.</u>
11:30 am	B24	Effect of Cyanolytic Bacterium, <i>Pseudomonas fluorescens</i> BG-E on the Photosynthesis of <i>Pseudanabaena Lonchoids</i>: An Attempt to Understand Cyanolytic Mechanism <u>Wijesooriya M. M., Widana Gamage S. M. K. and Masakorala K.</u>
11:45 am	B26	Analysis of Secondary Metabolites Present in Endophytic Fungi from Selected Invasive Plants as Potent Antioxidants and Antibacterial Agents <u>Dissanayake D. K. D. G., Manawadu H. C. Kodikara K. A. S., Bulugahapitiya V. P.</u>
12:00 pm	B28	Efficiency Enhanced Greener Approach for Bromination of Activated Aromatic Compounds <u>Deshani K. A. L. N. and Wadumethrige S. H.</u>
12:15 pm	B34	The Synthesis and Evaluation of Methyl Eugenol from <i>Cinnamomum zeylanicum</i> Leaf Oil as the <i>Bactrocera Dorsalis</i> Attractant: A Value Addition <u>Fernando W. H. I., Lamahewage L. S. N. S., Yapa Y. M. A. L. W. and Gangabadage C. S.</u>
12.30 pm	C20	Aqueous Extract of <i>Catharanthus roseus</i> L. Loaded Alginate Nanoparticles: Characterization and Assessment of A-Glucosidase and A-Amylase Inhibitory Potential <u>De Silva W. N. D., Attanayake A. P., Arawwawala L. D. A. M., Karunaratne D. N. and Pamunuwa K. M. G. K.</u>

Session B-III

Panel Members:

1. Chairperson: Dr. S. Wanniarachchi
2. Dr. W.S. Hemalika

Convener: Dr. K.B. Jayasundara

Co-Host: Ms. M. P. S. A. Perera

Zoom link: <https://learn.zoom.us/j/65213225679?pwd=Y1hhTDVvVWg0dGVaZjRNbE1OWmxEZz09>

Time	Abstract ID	Title
11:00 am	B32	Performance of Surface Modified Pyrolytic Carbon Black in Rubber Compounding <u>De Zoysa D. M. D. A.</u> , Sudusingha Y. C. Y., Hewage J. S., Ranaweera S. A.
11:15 am	B18	Computational Study of SARS-Cov-2 M^{PRO} Inhibition by Phytochemicals in Five Traditional Medicinal Plants. <u>Munasinghe M. A. I. J.</u> and Ratnaweera C. N.
11:30 am	B23	Utilization of Tire Pyrolytic Char as a Potential Adsorbent for The Removal of Methylene Blue <u>Peiris T. B. N.</u> , Ranaweera A. S., Hewage J. S.
11:45 am	B27	Synthesis And Characterization of Nano Co₃O₄- B Co-Doped G-CN Heterojunction for Photocatalytic Degradation of Textile Dye Wastewater Under Sunlight <u>Wickramasingha W. G. B.</u> , Kalutharage N. K. and Hewage J. W.
12:00 pm	B31	Mg-Doped ZnO Nano particles for Photodegradation of Methylene Blue and Chlorophenol <u>Silva S.S.H.</u> and Edussuriya M
12:15 pm	B33	Purification and Application of Pyrolytic Carbon Char in Paint Formulations <u>Liyanagamage V.</u> , Ravihari C., Jayasekara H. D., Sampath W. A. U., Ranaweera S. A.

Oral Presentations – Category C

Session C-I

Panel Members:

1. Chairperson: Prof. (Mrs.) D.H.N. Munasinghe
2. Prof. H. B. Asanthi

Convener: Ms. Dinelka Thilakarathne

Co-Host: Ms. Nisansala De Costa

Zoom link: <https://learn.zoom.us/j/66898528580?pwd=RDg5LOZPK3B2ZUg1MXIJSmFibFp6UT09>

Time	Abstract ID	Title
11:00 am	C5	Relationship Between Reservoir Morphometry and Chitin Yield of Giant Freshwater Prawn (<i>Macrobrachium rosenbergii</i>) Collected from Different Reservoirs in Sri Lanka <u>Sanuja R. G.</u> , Deepananda K. H. M. A., Jayasinghe U. A. D., Lakshman P. L. N.
11:15 am	C27	Phenotypic Plasticity in Orange and Black Color-Patches in Wild Guppy (<i>Poecilia reticulata</i> Peters) Linked to Habitat Characteristics <u>Jayawickrama R. G. D. R.</u> , Gunawickrama K. B. S.
11:30 am	C32	Identification of Suitable Sites for Freshwater Aquaculture in the Flood-Prone Areas of the Nilwala River Basin, Using Land-Use Patterns and Soil Quality <u>Amaraweera K. W. R. R.</u> , Deepananda K. H. M. A. and Jayasinghe U. A. D.
11:45 am	C21	Colour Enhancement of Ornamental Black Carps Using Dried Squid Ink Powder <u>Dilshan M. A. H.</u> , de Silva M. P. K. S. K and Senaarachchi W. A. R. K.

Session C-II

Panel Members:

1. Chairperson: Prof. (Mrs) W.T.S.Dammini Premachandra
2. Prof. (Mrs) K.B. Suneetha Gunawickrama

Convener: Mr. Dammika Wijekoon

Co-Host: Ms. Sumedha Hansamali

Zoom link: <https://learn.zoom.us/j/62085191601?pwd=YVJtOHdreTVXaHJzVkRNakhPSTNNQT09>

Time	Abstract ID	Title
11:00 am	C7	Anti-Oxidant Potency in Seeds of Selected <i>Vigna unguiculata</i> Varieties of Sri Lanka Kuganathan S., <u>Thilakarathne R. M. P. S.</u> and Kumari K. D. K. P.
11:15 am	C9	Temporal Variation of Flower Visitors of <i>Calotropis gigantea</i> (L.) in Southern Province of Sri Lanka <u>Wijeweera W. P. S. N.</u> , De Silva M. P. K. S. K., Dhileepan K. and Senaratne K. A. D. W.
11:30 am	C6	Determining the Toxicity of Papaya (<i>Carica papaya</i>) Leaf Extract on Zebrafish (<i>Danio rerio</i>) Embryo <u>Prameesha H. A.</u> , Guruge W. A. H. P. and De Silva D. P. N.
11:45 am	C17	Molecular Identification of Selected Species of Family Carangidae in Sri Lanka: An Initiation for Establishment of Barcoding Library <u>Madushan P. G. L.</u> , Munasinghe D. H. N.

Session C-III

Panel Members:

1. Chairperson: Prof. Ruwani Hewawasam
2. Prof. P.A.D.H. Nayana Gunathilaka

Convener: Dr. Dilan Chathuranga

Co-Host: Mr. Hasitha Wijayathilaka

Zoom link: <https://learn.zoom.us/j/63808049104?pwd=UEhOU21CQm1ibzJvSUdPdTA1azYrZz09>

Time	Abstract ID	Title
11:00 am	C12	Genotypic Identification of <i>Orientia tsutsugamushi</i> Strains Causing Scrub Typhus Disease in Southern Sri Lanka <u>Wimalasekara R. L.</u> , Fernando, K., Premaratna, R., Seneviratne, K. N. and Jayathilaka, N.
11:15 am	C29	Assessment of Glucose-Lowering Activity of <i>Cassia auriculata</i> L. Extracts Encapsulated Nanoliposomes <u>Wickramasinghe A. S. D.</u> , Attanayake A. P. and Kalansuriya P.
11:30 am	C31	<i>In Vitro</i> Antioxidant Activity, Total Phenolic and Flavonoid Contents of Different Solvent Extracts of <i>Ficus racemosa</i> (Attikka) Bark <u>Panangalage P.</u> and Hettihewa S.K.
11:45 am	C13	Linoleic Acid Levels in Patient Peripheral Blood Cells May Serve as a Biomarker of Acute Scrub Typhus <u>Wimalasekara R. L.</u> , Premaratna, R., Seneviratne, K. N. and Jayathilaka, N.

Oral Presentations – Category D

Session D-I

Panel Members:

1. Chairperson: Prof. K. K. A. S. Yapa
2. Dr. H. A. D. Saranga. D. Perera

Convener: Dr. K. V. S. Prasadh

Co-Host: Ms. K. M. Liyanage

Zoom link: <https://learn.zoom.us/j/67209174591?pwd=MG9tQ1hiTE5walpJUGxIL1VvMXhSdz09>

Time	Abstract ID	Title
11:00 am	D16	An Improved Technique for Distortion Removal in Raman Spectra Using Impulse Response Filter Banks <u>Ajward A. M.</u>
11:15 am	D31	A Preliminary Study on the Use of Formant Analysis of Sinhala Vowel Sounds for Distinguishing Caller's Age <u>Pushpakumara R. A. M., Alwis P. H. A. S. and Bodhika J. A. P.</u>
11:30 am	D32	Modelling Temperature Distribution Analysis in a Data Center Using Computational Fluid Dynamics <u>Roche A. N. N., Gunawardana K. G. S. H., and Vitharana V. H. P.</u>
11:45 am	D65	Experimental Investigation of Compressive Strength of Lathe Waste Fiber Concrete <u>Nawarathna W. M. D. H., Pabasara W. G. A., Liyanage D. N. and Lakshitha W. D. R.</u>
12:00 am	D76	An Optimized Method for Making Thin Primary Mirrors for Industrial Scale Telescopes <u>Samararathna K. G., Withanage N. S. D., Amaradasa H. D. S., Prasadh K. V. S., De Silva W. M. K.</u>

Session D-II

Panel Members:

1. Chairperson: Prof. P. A. Jayantha
2. Dr. L. W. Somathilake

Convener: Dr. E. J. K.P Nandani

Co-Host: Ms. K.G.P. Hansani

Zoom link: <https://learn.zoom.us/j/63089054914?pwd=SXEvVHpKMEROU2RoRzIQLzFaYlo5QT09>

Time	Abstract Id	Title
11:00 am	D01	Noise-Induced Stochastic Transition: A Novel Stochastic Chemostat Model with Flocculation Effect <u>Liu R., Ma W.</u>
11:15 am	D05	Local Stability Properties of a Delayed HIV – I Virus Dynamic Model with Saturation Infection Rate <u>Silva P. D. N., Pradeep B. G. S. A. P.</u>
11:30 am	D21	Mathematical Modeling and Inverse Mapping to Find the Saturation of Carbonate-Water in the Fingering Phenomenon <u>Sahabandu C. W. and Dewasurendra M.</u>
11:45 am	D44	A Hybrid Method for Solving the Model of Human Immunodeficiency Virus Infection of CD4+ T cells <u>Weerakoon S. H. and Wimaladharma N. A. S. N.</u>
12:00 pm	D47	A Linear Programming Model to Optimize the Apparel Production Process During the Covid-19 Pandemic <u>Sandaruwan M. K. D. D., Jayasooriya J. M., Samarathunga D. M. and Daundasekara W. B.</u>
12:15 pm	D55	Predicting Dengue Fever Cases Using Time Series Model and Hidden Markov Model in Sri Lanka <u>Munasinghe B. S. N. G., and Perera K. K. K. R.</u>

Session D-III

Panel Members:

1. Chairperson: Prof. Leslie Jayasekara
2. Dr. N. Yapage

Convener: Ms. S. D. M. Dilshani

Co-Host: Ms. N. Y. J. K. Samarakoon

Zoom link: <https://learn.zoom.us/j/69143970909?pwd=dU1veWMwWkhoMkJ0alpZcExvRXpldz09>

Time	Abstract Id	Title
11:00 am	D06	Popular Repeated Significance Type of Sequential Tests for Binary Responses <u>Abirami N. G. N.</u> and Sooriyarachchi M. R.
11:15 am	D22	An Improved Public Key Cryptosystem Based on Elgamal Algorithm <u>Athurugiriya K. A. P. S.</u> and Ranasinghe P. G. R. S.
11:30 am	D35	Estimating the Empirical Distributions of Exchange Rates Volatility in Sri Lanka <u>Basnayake B. R. P. M.</u> and Chandrasekara N. V.
11:45 am	D42	Approximate Analytical Solution for the Cauchy Fuzzy Reaction-Diffusion Equation via Method of Directly Defining the Inverse Mapping <u>Karunarathna W. H. D. T.</u> , Samarakoon S. M. P. T. B. and Dewasurendra M. T. M.
12:00 pm	D48	A Comparison of Partition of Unity Finite Element Method and Finite Volume Technique for Solving 1-D Heat Conduction Problems <u>Edirisinghe E. D. K. I. S.</u> and Jayantha P. A.
12:15 pm	D64	Assessment of Plant Growth Performances of <i>Capsicum frutescens</i> L. (Chili plant) Based on Analysis of Variance and Ordinary Differential Equation Model <u>Aththanayake A. M. W. W.</u> , Kodikara K. A. S., Prasangika K. D., Somathilaka L. W.
12:30 pm	D66	Identifying the Risk Factors for COVID-19 Mortality in Sri Lanka Using Mutual Information <u>Gunasekara E. M. C. S.</u> , Udagedara U. G. I. G. K. and Sudu Ambedgedara A. N.

Session D-IV

Panel Members:

1. Chairperson: Prof. A. M. Razmy
2. Dr. N. C. Ganegoda

Convener: Dr. A. W. L. Pubudu Thilan

Co-Host: Mr. A. Wijesekara

Zoom link: <https://learn.zoom.us/j/69687687745?pwd=dC9GSWpEWjJ2aEtvaDB5NlkzNjRkQT09>

Time	Abstract Id	Title
11:00 am	D11	A Binary Linear Programming Model for a University Timetabling: A Case Study on University of Ruhuna, Faculty of Science <u>Welahetti L. R.</u> and Samarathunga D. M.
11:15 am	D30	A Study on the Daily Exchange Rate Fluctuation in Sri Lanka Using Stochastic Models <u>Deepashika W. M. K.</u> and Yapage N.
11:30 am	D53	Influence of Environmental Factors on Catch Rates of Flotsam Associated Indian Scad (<i>Decapterus russelli</i>) in the Indian Ocean <u>Hemasha R.T.</u> , Punyadewa N. B.P., Somathilaka L.W. and Prasangika K.D.
11:45 am	D57	Province Medium-Scale Manufacturing Sector in Sri Lanka <u>Bandara S. M. C. N.</u> and Leslie Jayasekara
12:00 pm	D68	An Automated Defect Identification and Marking System for Sail Manufacturing Industry Using Image Processing Technique Sewwandi R. U., Chamari R. M. L. and Liyanage D. N.
12:15 pm	D73	Time Series Model to Predict the Leptospirosis Outbreak in Kalutara District, Sri Lanka <u>Thanusika T.</u> , Selvabavitha V. and Anuthrika T.
12:30 pm	D51	An Approach Towards Settling a Conjecture on Ample Numbers <u>Liyanage M. P.</u> and Ranasinghe P. G. R. S.

Session D-V

Panel Members:

1. Chairperson: Mr. S. A. S. Lorensuhewa
2. Dr. C. Thusangi Wannige

Convener: Mr. T. Chathuranga

Co-Host: Ms. T. C. Weerakoon

Zoom link: <https://learn.zoom.us/j/64569094392?pwd=dDdXN2NWcGdBMTFrY0F2Y3pLcFNCUT09>

Time	Abstract Id	Title
11:00 am	D03	An Improved Machine Learning Approach for Drug Combination-Based Drug Repositioning <u>Maralanda A. M. M. R. Y. R.</u> and Hameed P. N.
11:15 am	D14	Adopting Blockchain Technology to Prevent the Flow of Counterfeit Pharmaceuticals in Sri Lanka: A Conceptual Model <u>Paththinige P. W.</u> and Rajapakse C. C.
11:30 am	D38	Comparative Analysis of Traditional Load Balancing Algorithms in Software-Defined Networks <u>Umasuthan G.</u> , Khedika S. and Ramanan M.
11:45 pm	D61	An Optimized Computational Water Quality Prediction Model <u>Kolambage C. S.</u> and Jayalal S.
12:00 pm	D78	Word Embedding Based Sinhala News Documents Classification <u>Weerasiri R. I.</u> , Lorensuhewa S. A. S. and Kalyani M. A. L.

Poster Presentations – Category A

Session A-I

Panel Members:

1. Chairperson: Prof. Gangani Samaraweera
2. Dr. K.K.G.U. Hemamali

Convener: Ms. S. Y. S. de Silva

Co-Host: Ms. Visudhdi Anushima

Zoom link: <https://learn.zoom.us/j/64435823012?pwd=ZzNqanVGMWNsREFGNWx0TjhGY3I0QT09>

Time	Abstract ID	Title
2:30 pm	A01	Comparison of Yield and Quality of Oil in Ceylon Cinnamon (<i>Cinnamomum zeylanicum</i> Blume) Among Different Agro-Ecological Zones <u>Wijeweera A. A., Hettiarachchi S. R., Hewage J. W., Wadumethrige S. H., Jayasinghe G. G.</u>
2:40 pm	A07	Development of a Ready to Drink Cinnamon Based Beverage Using Bee Honey as a Natural Sweetener <u>Madunimani J. P. D., Silva K. N. N and Perumpuli B.</u>
2:50 pm	A15	Impact of Extension Services on Productivity of Betel Leaf (<i>Piper betel</i> L) Farmers in Kurunegala District in Sri Lanka <u>Premasiri S. P. A., Alwis J. and Herath H. M. U. N.</u>
3:00 pm	A18	Bioremediation Process of Parboiling Effluent Generated by Paddy Processing Industries <u>Ekanayake E. M. A. M. and Prabhakaran M.</u>
3:10 pm	A22	Homegardens in Ampara District: A Promising Way to Improve the Food Security of Rural Poor <u>Thirumarpan K.</u>
3:20 pm	A24	Welfare Issues in Intensive Broiler Production on the Perception Reflected by Different Social Strata: A Case Study in Matara District <u>Senaratna D., Marasinghe M. M. C. S. and Atapattu N. S. B. M.</u>

Session A-II

Panel Members:

1. Chairperson: Dr. D.C.L. Kumari Fonseka
2. Dr. Sunanda Kodikara

Convener: Mr. D. D. N. Sripal

Co-Host: Ms. Thrimodya Abayathunga

Zoom link: <https://learn.zoom.us/j/69408932564?pwd=VytXyUZUb2k3bEVtZXppVGJdTdidz09>

Time	Abstract ID	Title
2:30 pm	A02	Optimization of Some Fermentation Conditions and Composition of the Fermentation Medium for Bio-Ethanol Production from Poultry and Cattle Feed by Yeast Fermentation <u>Shashakya amadahara K. M.</u> and Vengadaramana A.
2:40 pm	A08	Comparative Physicochemical Analysis of Seeds of Selected Medicinal Plants Used in Traditional Medicine <u>Jayasinghe M. R.</u> , Rajkumar G. and <u>Shanmugarajah V.</u>
2:50 pm	A12	Can Restoration Efforts Improve Soils in Degraded Grasslands at the Knuckles Conservation Forest, Sri Lanka? <u>Gunasekera R. D. A.</u> , Gunaratne A. M. T. A., Senevirathne G., Gunatilleke I. A. U. N. and Gunatilleke C. V. S.
3:00 pm	A14	A Comparison of Cultural Characters and Pathogenicity of <i>Colletotrichum</i> spp. Causing Colletotrichum Leaf Disease (CLD) Of Rubber in Sri Lanka Fernando T. H. P. S. and <u>Aberathne A. H. M. N. R.</u>
3:10 pm	A16	Mass Production and Determination of Shelf-Life of Two <i>Trichoderma</i> sp. in Compost Formulation Fernando T. H. P. S. and <u>Shehani K. L. K.</u>
3:20 pm	A17	Effect of Light Intensity in Indoor Cultivation of Sweet Basil (<i>Ocimum basilicum</i> L.) <u>Rathnayake R. R. M. U. N. B.</u> and Hemamali K. K. G. U
3:30 pm	A21	Optimization of <i>In Vitro</i> Micropropagation Protocol for Aloe Variegata: An Ornamental Succulent <u>Jayathilaka K. M. D. S. S.</u> , Abeyasinghe P. D., Hemamali K. K. G. U. and Chathuranga H. L. T. S.

Poster Presentations – Category B

Session B-I

Panel Members:

1. Chairperson: Dr. G. B. C. Sanath
2. Dr. K. B. Jayasundara

Convener: Dr. J. S. Hewage

Co-Host: Mr. Yohan Sudhusinghe

Zoom link: <https://learn.zoom.us/j/65074800154?pwd=bDE2RzFXUkpPSXIJUWE5K2dna0oxQT09>

Time	Abstract ID	Title
2:30 pm	B04	Effect of Biochar on Nitrate and Ammonium Retention in Paddy Soil Columns Mannapperuma S. R., <u>Kumareswaran K.</u> and Wijetunga S
2:40 pm	B07	Activity of Protein-Based Trypsin Inhibitors Present in Local Variety of <i>Canavalia ensiformis</i> <u>Kumari K. D. K. P.</u> , Chandrasena U. S. D., Rajapakse S. and Suresh T. S.
2:50 pm	B16	Bio-Ethanol Production from Some Marine Algae by Baker's Yeast and Mixed Culture from Palmyrah Toddy Under Submerged Fermentation <u>Vivekanandaraja R.</u> , Arumugam V., Ranganathan K. and Fernando E. Y.
3:00 pm	B21	Incorporation of Rice Husk Ash with Red Mud in Preparation of Bricks: A Preliminary Investigation <u>Dilshan D. K. D.</u> , Kondarage Y. G., Diyabalanage R. S. and Pabasara W. G. A.
3:10 pm	C35	Evaluation of Photo Protective and Antioxidant Property of <i>Azadirachta indica</i> Leaf Extract <u>Jayashan T. W. K. S. S.</u> , Wijesekara K. and Dissanayake A. S.

Session B-II

Panel Members:

1. Chairperson: Dr. M. Edussuriya
2. Dr. H. C. Manawadu

Convener: Dr. C. N. Rathnaweera

Co-Host: Ms. S. B.B.R. Samarakoon

Zoom link: <https://learn.zoom.us/j/65366745223?pwd=bHlUjVlRTVaenl5TlRlTXpydV1UT09>

Time	Abstract ID	Title
2:30 pm	B12	An Assessment of Water Absorption of a Lightweight Polyester Resin Reinforced Sawdust Bio-Composite <u>Dilrukshi R. M. N.</u> and Panamgama L. A
2:40 pm	B14	Performance Evaluation of Slow Sand Filter After Pretreated with Coagulant Chemical in Kilinochchi WTP <u>Anoja N.</u> , Thadshagini R., Thushyanthy M.
2:50 pm	B20	Quadratic Nonlinear Optical Properties of Photochromic DTE-Containing Ruthenium Complexes: A DFT Study <u>Wanigasekara W. W. N. P.</u> , Humphrey M. G. and Kodikara M. S.
3:00 pm	B25	Chemical Contamination in Widely Consumed Grains Available in Local Market <u>Ekanayake E. M. H. T.</u> , Wijekoon K. K. D. M. P., Kalutharage N. and Wadumethrige S. H.
3:10 pm	B29	Investigation of Possible Adulterations in Coconut Oil Sold in the Local Market <u>Perera K. C. D.</u> , Yapa Y. M. A. L. W., Walpita J. K. and Karunaratna A. C.

Poster Presentations – Category C

Session C-I

Panel Members:

1. Chairperson: Prof. (MRS.) M.P.K.S.K. De Silva
2. Prof. (Mrs) W.T.S.Dammini Premachandra

Convener: Ms. Nisha Wijeweera

Co-Host: Ms. Nipuni Ganepola

Zoom link: <https://learn.zoom.us/j/61184858259?pwd=d0htZE1neDRCaStFYmVwMlI1bFZVZz09>

Time	Abstract ID	Title
2:30 pm	C18	Variation of Freshwater Fish Diversity in Podi Wewa And Maunawa Wewa in the Kurunegala District in Sri Lanka <u>Wanasinghe W. M. Y. D.</u> , Piratheepa S. and Niranjan K.
2:40 pm	C2	Evidence of Two Male Morphs of <i>Abseconita promelaena</i> (Walker) (Lampyridae: Luciolinae) in Sri Lanka <u>Wijekoon W. M. C. D.</u> and Wegiriya H. C. E.
2:50 pm	C23	Identification of Medicinal Plants with Their Potential Pharmacological Action in <i>Kaithady</i>, Jaffna, Sri Lanka <u>Karunya S.</u> , Sivagajendran S., Sathiyaseelan V. and Nithiakumar N.
3.00 pm	B03	Diversity of the Macrobenthic Assemblage in the Mundal Lagoon, Sri Lanka <u>Hettige, N. D.</u> , Jayawardane, J. K. P. C. and Weerasekara, K. A. W. S.

Session C-II

Panel Members:

1. Chairperson: Prof. Sampath Gunawardena
2. Dr. Aruna. S. Dissanayake

Convener: Ms. Dinelka Thilakarathne

Co-Host: Mr. Hasitha Wijayathilaka

Zoom link: <https://learn.zoom.us/j/66848501736?pwd=Rkdid3JNdENWMnRDMkVVSml4MGVSdz09>

Time	Abstract ID	Title
2:30 pm	C16	Quality Evaluation of Different Brands of Atorvastatin Tablets Available in Sri Lanka <u>Thanusika N.</u> , Kaushalya G. S. H., Alwis K. P. B. and Thuvaragan S.
2:40 pm	C28	A Laboratory Based Pilot Study on Anti-Cancer Property of <i>Alpinia calcarata</i> (S. Araththa) and <i>Solanum surattense</i> (S. Ela Batu) in Immunosuppressed Mice, Rats and Human Cell Lines <u>Kithmini K. K. A.</u> , Chandana E. P. S., De Silva P. M. C., Hettihewa M.
2:50 pm	C15	Dietary Carbohydrate and Fat Intake Are Associated with Increased Percentage of Glycated Hemoglobin in Patients with Newly Diagnosed Type 2 Diabetes Mellitus; An Evidence From a Cross-Sectional Study <u>Wasana K. G. P.</u> , Attanayake A. P., Weerathna T. P. and Jayatilaka K. A. P. W.
3:00 pm	C19	Toxicity Assessment of a Novel Polyherbal Mixture of 28-Day Repeated Dose; A Trial Using Wistar Rats <u>Amarasiri A. M. S. S.</u> , Attanayake A. P., Jayatilaka K. A. P. W. and Mudduwa L. K. B.
3:10 pm	C25	Sri Lankan Speech Therapists During COVID-19; Knowledge on Safety Practices, Service Delivery and Difficulties <u>Dilshani R. M.</u> and De Silva M. D. K.
3:20 pm	C11	Antibacterial Activity of Extracts of Roots and Seed Essential Oil of Sri Lankan Endemic Plant, <i>Vateria copallifera</i> <u>Oshadha D. A. D. O. D.</u> , Sivasinthujah S., Gnanakarunyan T. J., Srikanan R.

Poster Presentations – Category D

Session D-I

Panel Members:

1. Chairperson: Dr. W. A. R. De Mel
2. Dr. K. D. Prasangika

Convener: Dr. A. W. L. Pubudu Thilan

Co-Host: Ms. S.D.M. Dilshani

Zoom link: <https://learn.zoom.us/j/68223240861?pwd=QzJnQnFBYTR1VVUwWkdOQktQREwxdz09>

Time	Abstract ID	Title
2:30 pm	D29	An Investigation into the Porosity and Permeability Properties of Fabric Materials Using Nanotechnology and Fractal Geometry <u>Jayamini K. G. C.</u> and Yapage N.
2:40 pm	D34	Assessing the Impact of Vaccination on the Spreading Of COVID-19 Through a Mathematical Modeling <u>Sandaruwini B. A. P. N.</u> and Somathilake L. W.
2:50 pm	D36	The Use of Constructivism in Teaching Mathematics in Secondary Classes by Prospective Teachers <u>Gunasekara W. K. K. H. S.</u> , Amarasinghe A. K. and Madawala H. M. S. P.
3:00 pm	D41	A Preliminary Study on The Perceived Mental Stress Among Undergraduates at the University of Ruhuna Due to Online Education During the COVID 19 Period Hasangani N. D. S., Ranathunga M. B. N, <u>Karunaratne V. G. S. I.</u> , Madhushika T. D. T, Chandrasiri T. L. A. N, Gayashani W. I. A, Ranawaka R. A. D. S, Himansi M. D. N, Ranaweera K. K. A. S, Rangajeewa B. V. A, Bodhika J. A. P and Leslie Jayasekara.
3:10 pm	D49	Estimation of Land Allocation for Crops with a Water Management Plan for Udawalawe Water Reservoir Irrigation Scheme <u>Lakmini R. M. V.</u> and Samarathunga D. M.
3:20 pm	D52	Analysis Of Pricing Risk Factors for Construction Projects in Sri Lanka <u>Beham K. W.</u>
3:30 pm	D56	Zernike Reconstruction of Ocular Aberrations with Measurement Noise <u>Lakshmi M. P. D. S.</u> , Karunaratna S. P. D. S. S. K. and De Silva T. M. M.

Session D-II

Panel Members:

1. Chairperson: Prof. S. S. Nishantha Perera
2. Prof. G. D. K. Mahanama
3. Prof. C. D. Tilakaratne
4. Dr. J. A. P Bodhika

Convener: Dr. M. C. S. Fernando

Co-Host: Ms. K.G.P. Hansani

Zoom link: <https://learn.zoom.us/j/64090704180?pwd=ano5NFJJaXp1QUpsOGVYcGFLa2Zkdz09>

Time	Abstract ID	Title
2:30 pm	D07	Examining The Level of Secondary Level Mathematics Teachers' Pedagogical Content Knowledge in Algebra <u>Rupasinghe D. D.</u> , Amarasinghe A. K and Vitharana P. R. K. A
2:40 pm	D23	Forecasting Daily Platts Price of Auto Diesel Using Time Series and Neural Network Approaches <u>Madhubhashitha W. K. R.</u> and Appuhamy P. A. D. A. N.
2:50 pm	D27	Remotely Operated Ship Hull Painting Robot <u>Chandrasena A. G. A. S.</u> , Vitharana V. H. P. and Weerasekera B.
3:00 pm	D28	Design And Fabrication of a Low Cost Automated Tipping Bucket Rain Gauge with Locally Available Materials <u>Kavindi M. H. U.</u> , Abeywickrama S. S. and Ranatunga E. M.
3:10 pm	D37	Non-Newtonian Blood Flow in an Artery Vessel Under Non-Ironizing Magnetic Fields in Chemotherapy <u>Tharindi G. P. S.</u> and Karunathilaka N. G. A.
3:20 pm	D39	Investigation of Efficiency of The Higher-Level Multigrid Methods for Solving a Large System of Linear Equations Which Arises from Discretizing Numerical Schemes Of 1D Poisson Equation <u>Shareem M. S. S.</u> and Abeyratne M. K.
3:30 pm	D43	The Effect of Al₂O₃ Nano-Filler on Ion Interactions in Ionic Liquid Based Electrolytes Using Vibrational Spectroscopy <u>Nayanakanthi M. D. M.</u> , Pitawala H. M. J. C., Ratnasekera J. L.
3:40 pm	D63	A Discrete Dynamical Model to Make Decisions During Alcohol Consumption <u>Sewwandi M. D. S.</u> , Shanthidevi K. C. N.
3:50 pm	B5	Analysis of Global Mineral Market Price for Selected Earth Materials <u>Sampath J. K. H.</u> , Subasinghe H. C. S., Ratnayake A. S. and Abeyundara S. P.

Session D-III

Panel Members:

1. Chairperson: Dr. J.A. Jeewanie
2. Dr. D. W. C. P. Kumari

Convener: Mr. Gihan Chathuranga

Co-Host: Ms. T. D. K. Marambe

Zoom link: <https://learn.zoom.us/j/68442886301?pwd=WVpRYktRN0w1dmd0MnlqNmw0UUdrZz09>

Time	Abstract ID	Title
2:30 pm	D15	A Novel Approach for Enhancing the Patent Authentication and Management Process Using Blockchain Technology <u>Gunasekara P. T.</u> and Rajapakse C. C.
2:40 pm	D17	Medicinal Plant Leaf Classification Using Gradient-Based Features <u>Ariyadasa P.A.S.M.</u> and Ramanan M.
2:50 pm	D40	Implementation of an IOT Based Pet Trace System to Observe Pet Health <u>Fernando U. W. T. M.</u> , Gayan E. A. J., Sirithunga M. T. R. R., Rupasinghe R. A. M. K., DE Silva P. D. S. and Perera B. H. D.
3:00 pm	D46	Sinhala Sign Language Translator Using a 3D Model Avatar Mallikarachchi W. and <u>Perera S. K.</u>
3:10 pm	D58	Performance Evaluation of Machine Learning Models for Epileptic Seizures and Brain Tumor Prediction From EEG <u>Supuni H. D. S.</u> , Chathuranga P. D. T., Chathuranga L. L. G., Lorensuhewa S. A. S. and Pathirana K. D.

Session D-IV

Panel Members:

1. Chairperson: Dr. Sugandima Vidanagamachchi
2. Dr. M. K. S. Madushika

Convener: Mr. K.A.T.S. Jayathilaka

Co-Host: Ms. B. Raigamkorale

Zoom link: <https://learn.zoom.us/j/63928589519?pwd=VGJJEZjhYL1d3ZW8wQXFxenRmSnk2UT09>

Time	Abstract ID	Title
2:30 pm	D60	Performance Prediction in Time-sharing Servers Using Simulation Approach <u>Perera T. D. J. S.</u> and Rajapakse C.
2:40 pm	D69	IoT Based Monitoring System for a Telecommunication Tower <u>Jayarathna J. C. L</u> and Danthasinghe R. B.
2:50 pm	D75	A Study on Frequently Used Utility Features of Integrated Development Environments by Programmers <u>Wijebandara E. M. P. N.</u> , Wickramaarachchi D. N., Herath H. M. A. J.
3:00 pm	D77	Identifying The Authenticity of Registered Participants for An Online Zoom Session: A Conceptual Architecture Jayasinghe P. K. S. C, Wijerathna E. H. M. P. M. and <u>Rajapaksha S. Y.</u>