



RISTCON 2023

**10th Ruhuna International Science and Technology
Conference**

18th January 2023

**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. T. G. Dayananda,
Chairperson/RISTCON 2023

08:30 am Address by Professor D. H. N. Munasinghe,
Dean, Faculty of Science, University of Ruhuna

08:45 am Keynote speech by Professor Gomika Udugamasooriya
Associate Professor, University of Houston, U.S.A
“The wisdom beyond chemistry: Novel technologies to expedite
the modern drug-lead discovery process”

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. (Ms.) N. T. Wickramasuriya,
Joint Secretary/RISTCON 2023

10:10 am National Anthem

Oral and Poster Sessions

Program Summary

Time	Topic
11:00 am – 11 :30 am	Plenary Talk I “Strengthening the Food System in Sri Lanka to Overcome the Food Crisis” Professor Buddhi Marambe University of Peradeniya, Sri Lanka Zoom link : https://learn.zoom.us/j/61215167297?pwd=bUZ3YlRZc01ZR1AvT01FaThZTW44QT09
11: 45 am– 1:15 pm	Oral Sessions via Zoom
1:15 pm – 2:00 pm	Lunch Break
2:00 pm – 2:30 pm	Plenary Talk II “Seeking the contribution of cross-disciplinary researchers to address the energy crisis” Professor Chandima Gomes University of the Witwatersrand, South Africa Zoom link : https://learn.zoom.us/j/61416510621?pwd=b0xzK0xwVzFjaitrQmpwTEhNRVgrdz09
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

Computer Science & Information and Communications Technology, Engineering, Mathematics & Statistics, Modeling & Simulation, Nanotechnology, Physics & Geophysical Science, Quantum Science

Oral Presentations – Category A

Session A-I

Panel Members:

1. Chairperson: Prof. Pushpa. D. Abeysinghe
2. Prof. K. Masakorala

Convener: Dr. A. J. D. Perera

Co-Host: Mr. D. D. N. Sripal

Zoom link: <https://learn.zoom.us/j/62107278313?pwd=T1ZlTEpJa0JwY2U4U3lQdEdOcTlnZz09>

Time	Abstract ID	Title
11:45 am	A01	Screening of Salinity and Drought Tolerance <i>Trichoderma</i> Isolates for Plant Growth Promotion Traits and Antagonistic Against <i>Sclerotium rolfii</i> and <i>Fusarium oxysporum</i> f. sp. <i>Cubense</i> <u>Sanjula G. H. D.</u> , Amarasinghe Y. W. P., Dhanushka P. W. T., Chathuranga T. S., Abeysinghe, S.
12:00 pm	A02	Characterization of Plant Growth Promoting Bacteria Isolated from <i>Panicum maximum</i> Rhizosphere; Potential Candidates for Biofertilizers <u>Samaranayake N. H. K.</u> , Sanjaya K., Abeysinghe S.
12:15 pm	A05	Bacterial Antagonists Against Tomato (<i>Solanum lycopersicum</i> L.) Early Blight Causal Agent <i>Alternaria alternata</i> <u>Sandani, H. B. P.</u> , and Sithumini, G. G. C., Weerahewa, H. L. D.
12:30 pm	A06	Applied Nucleation Affects Soil Restoration of Degraded Grasslands in the Knuckles Conservation Forest, Sri Lanka <u>Gunasekera R. D. A.</u> , Gunaratne A. M. T. A., Senevirathne G., Gunatilleke I. A. U. N., Gunatilleke C. V. S.
12:45 pm	A08	Physico-Functional and Nutritional Properties of Banana Based Instant Brownie Mix <u>Mendis B. H. K.</u> , Perumpuli P. A. B. N., Fernando G. S. N.
01:00 pm	A14	Genetic Diversity of <i>Calotropis gigantea</i> (L.) R. Br. with RAPD Markers: Taxonomic Implication <u>Sakunthala W. G. P.</u> , Abeysinghe P. D., Liyanage S. P.
01:15 pm	A22	Evaluation of the Potential Ecotoxicity of Textile Industry Effluent by using <i>Allium cepa</i> Bioassay <u>D. L. Prathibha Nirmani</u> , K. Masakorala

Oral Presentations – Category B

Session B-I

Panel Members:

1. Chairperson: Prof. (Mrs.) V. Bulugahapitiya
2. Dr. Harshi Manawadu

Convener Dr. Himali Jayasekara

Co-Host: Ms. Varuni Abesundara

Zoom link: <https://learn.zoom.us/j/62130746662?pwd=VmdYYTFldjVocGx0Vm5NUGhEVncvdz09>

Time	Abstract ID	Title
11:45 am	B11	Synthesis and Characterization of Graphene Oxide using Boric and Phosphoric Acids as Protective Agents Pramodika W. D. R., <u>Koswaththa A. V. R. S.</u> , Balasooriya N. W. B., Kumara G. A. R.
12:00 pm	B13	Cardiac Troponin I as a Marker to Diagnose NON-ST ELEVATION MYOCARDIAL INFARCTION (NSTEMI) in Patients Presenting with Acute Chest Pain and Non-Diagnostic ECG <u>S. P. M. Weearpperuma</u> , N.Jayathilaka, C.P. Geekiyanage
12:15 pm	B14	Development of 2D Hexagonal Nanoplates of α-Fe₂O₃ /rGO Composites Via One Step Hydrothermal Process <u>Karunathilaka W. M.</u> , Gallage I. P., Premadasa P. M., Munasinghe M. A. H. M., Gunawardhana N.

Session B-II

Panel Members:

1. Chairperson: Prof. Chinthaka Sanath Gagabadage
2. Dr. Samantha

Convener: Dr. Jeewantha Hewage

Co-Host: Vimarsha Paranamana

Zoom link: <https://learn.zoom.us/j/67003139371?pwd=NGdRb041VzJmV1JtVytpQ3VZT3RZZz09>

Time	Abstract ID	Title
11:45 am	B05	A Preliminary Survey on Macrobenthic Communities in Nilwala River and Madu Ganga Estuaries in Sri Lanka <u>Rathnayake R. M. S. W.</u> , Guruge W. A. H. P., Gunawickrama S. H. N. P., Gunawickrama K. B. S.
12:00 pm	B04	Complexes of $[M(ppy)_2Cl]_2$ (M = Ir, Rh) with N and P Donor Ligands <u>Sarath D. Perera</u>
12:15 pm	B19	Comparisons of Physicochemical Properties of Pumpkin (<i>Cucurbita maxima</i>) Flour and Isolated Starches and Their Biofilms Jeewantha S. Hewage, <u>Hewawasam T. R. K.</u> , Panamgama L. A.
12:30 pm	B20	Photocatalytic Degradation of Textile Dyes by Graphene Oxide and Graphitic Carbon Nitride Nanocomposite (GO/g-C₃N₄) Kalutharage N. K., <u>Osada P. R. A.</u>

Session B-III

Panel Members:

1. Chairperson: Dr Madurani Edussuriya
2. Dr. Lalith Yapa

Convener: Dr. Kumudu Siriwardhana

Co-Host: Ms. Lakshi Deshani

Zoom link: <https://learn.zoom.us/j/64132718801?pwd=UVdTNENrNG92SzJLWEYvNVExeVhudz09>

Time	Abstract ID	Title
11:45 am	B12	Molecular Dynamics Simulation to Investigate Glutamine/Arginine Polymorphism at Position 192 of Serum Paraoxonase-1(PON1) <u>Wijekumara A. B. A. T.</u> , Thanthrige V. O., Ratnaweera C. N.
12:00 pm	B21	Degradation of Reactive Black 5 Dye by Fenton Process Using Fe₃O₄/Zeolite <u>Kumari W. M. P. W.</u> , Wanniarachchi S.
12:15 pm	B22	Novel Silica Supported CaO Rich Catalyst from Rice Husk and Coral Rubble to Produce Biodiesel from Waste Cooking Oil <u>Sandamini W. G. S.</u> , Ratnaweera C. N.
12: 30 pm	B23	Development of Polybutyrate (PBAT) Based Biodegradable Film with Wheat Flour as a Filler Material <u>Perera K. A. I. S.</u> , Yoga Milani, Ratnaweera C. N.
12:45 pm	D73	Green Synthesis of Zero Valent Iron Particles using <i>Coffea arabica</i> <u>Gaminda K. A. P.</u> , Abeysinghe D. T., Jayasinghe C. D., Senthilnithy R.

Oral Presentations – Category C

Session C-I

Panel Members:

1. Chairperson: Prof. (Mrs.) D. H. N. Munasinghe
2. Dr. K. R. Gamage

Convener: Dr. Dilan Chathuranga

Co-Host: Mr. Lahiru Madushan

Zoom link: <https://learn.zoom.us/j/69137907409?pwd=REdlazdoclVxMHJRUXZTNjlrWUU0QT09>

Time	Abstract ID	Title
11:45 am	C01	Histopathological Changes in the Pancreas of High-Fat Diet Fed Streptozotocin Induced Wistar Rats <u>Wickramasinghe A. S. D., Attanayake A. P., Mudduwa L. K. B., Kalansuriya P.</u>
12:00 pm	C02	Rediscovery of the Endemic Firefly, <i>Harmatelia bilinia</i> Walker (Coleoptera: Lampyridae: Ototretinae) from Ranmale Forest Reserve, Sri Lanka <u>De Silva H. S. D. R., Wijekoon W. M. C. D., Wegiriya H. C. E., Bandara K. V. S. N.</u>
12:15 pm	C03	A Preliminary Study on Water Quality Assessment and Pollution Status of Madu Ganga <u>Senarath K. T. N., Amarasinghe N. J. S., Guruge W. A. H. P.</u>
12:30 pm	C13	Forecasting of Fish Production, Export and Import of Sri Lanka using Machine Learning Models <u>Sevwandi Dharmadasa W. L. S., Nimanthi Jayathilaka</u>
12:45 pm	C15	Phytochemical Screening and Anthelmintic Activity of Four Plant Extracts On Earthworm, <i>Eisenia Fetida</i> <u>Sujavanthi L., Thayalini T., Mikunthan G.</u>
01:00 pm	C29	Sunscreen Activity of <i>Punica granatum</i> (Pomegranate) Leaf Extract <u>Dissanayake A. S., Maduwanthi W. K. N.</u>

Oral Presentations – Category D

Session D-I

Panel Members:

1. Chairperson: Prof. W. A. Indika
2. Dr. W. A. Mohotti

Convener: Ms. Binuri Raigamkorale

Co-Host: Chamathka

Zoom link: <https://learn.zoom.us/j/68153720025?pwd=YXk0M2pTbnB2U0JmRjNETEtDc3FSdz09>

Time	Abstract ID	Title
11:45 am	D04	Study on Factors Affecting Effective Virtual Project Management in IT Companies in Badulla District <u>T. D. K. Marambe</u> , V. N. Wijerathna
12:00 pm	D08	Tracking Twitter Data during the Covid-19 Pandemic: A Comparative Analysis of Tourism Industry Movement <u>Priyamal G. A. N.</u> , Rupasingha R. A. H. M.
12:15 pm	D12	Sinhala Word Suggestion Algorithm for ad hoc Romanized Sinhala Transliterations using a Trie <u>Sumanathilaka T. G. D. K.</u> , Weerasinghe R., Priyadarshana H. Y. P. P.
12: 30 pm	D14	Suicidal Thoughts Influenced by the Covid-19 Pandemic: A Comparative Study using Twitter Data <u>Dilanka R. D. S.</u> , Rupasingha R. A. H. M.

Session D-II

Panel Members:

1. Chairperson : Mr. S. A. S. Lorensuhewa
2. Mrs. M. A. L. Kalyani

Convener: Mrs. H. D. S. Shashikala

Co-Host: Nadisha

Zoom link: <https://learn.zoom.us/j/69189513110?pwd=TFUvRi9KUHQvUFU4bXJCTHY0M1Q0UT09>

Time	Abstract Id	Title
11:45 am	D15	A Framework to Identify Tea Plant Varieties in Sri Lanka using Convolutional Neural Networks (CNN) <u>H. D. R. M. S. Kumara</u> , W. A. M. Prabuddhi
12:00 pm	D105	Translation of Sinhala Braille Characters into Sinhala Language using Image Processing Techniques <u>W. W. Madushan Sandaruwan</u> , P. H. P. Nuwan Laksiri
12:15 pm	D109	Oral Potential Malignant Disorder Prediction using Supervised Machine Learning Techniques <u>Zainab M. N. F.</u> , Gamage.C. Y., Liyanage C. R., Jayasinghe R. D.
12: 30 pm	D111	Betel Leaf Classification using Image Processing Techniques <u>Bandara N. W. C. D.</u> , Wijerathna E. H. M. P. M.
12:45 pm	D113	Predicting the Job Satisfaction of Freelancers using Machine Learning Algorithms: A Study Based in Sri Lanka Context <u>Ranasinghe H. R. I. E.</u> , Ranasinghe K. S., Rupasingha R. A. H. M.

Session D-III

Panel Members:

1. Chairperson: Professor P. A. Jayantha
2. Mrs. K. C. N. Shanthidevi

Convener: Dr. M. C. S. Fernando

Co-Host: H. H. K. D. C. Wickrama

Zoom link: <https://learn.zoom.us/j/66661050992?pwd=bFJGckxya0pCai9uS2l0bnd6MGVsdz09>

Time	Abstract Id	Title
11:45 am	D24	A New Highly Accurate Fourth-Order Approximation for Fisher Equation <u>Fernandopulle C. T.</u> , Gunarathna W. A., Mohammad M. A. M.
12:00 pm	D40	Off-line Signature Verification by using Proper Orthogonal Decomposition <u>Subawickrama H. D. A. W.</u> , Nishantha S. A. A., Mohamed M. A. M., Udagedara U. G. I. G. K.
12:15 pm	D51	The Genus of Maximal Embedding of the Generalized Petersen Graph, $GP(n, k)$ for the Cases $k = 1, 2$ <u>Caldera P. A. D. S. P.</u> , Almeida S. V. A., Wijesiri G. S.
12:30 pm	D53	Odd Prime Labeling of the Irregular Snake Graphs <u>Indunil W. K. M.</u> , Perera A. A. I., Dhananjaya K. D. E., De Silva K. H. C., Bandara D. M. A. K.
12:45 pm	D55	Parametric Efficient Portfolio Rebalancing Incorporating Transaction Costs <u>Vidumali M. W. M. L.</u> , Nishantha S. A. A., Udagedara U. G. I. G. K.

Session D-IV

Panel Members:

1. Chairperson: Prof. Leslie Jayasekara
2. Dr. H. C. Y. Jayathunga

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

Co-Host: A. M. P. S. Adhikari

Zoom link: <https://learn.zoom.us/j/68923206399?pwd=eEhUSnJuYIBPN2tgY3hqWkEwYjROUT09>

Time	Abstract ID	Title
11:45 am	D43	A New Algorithm for Finding the Basic Feasible Solution for Bottleneck Transportation Problem <u>E. M. D. B. Ekanayake</u> , E. M. U. S. B. Ekanayake
12:00 pm	D49	Swimming Performance Prediction of Elite Swimmers <u>Herath K. A. N. C.</u> , Premachandra P. K., Dissanayake R. B. N.
12:15 pm	D56	Some Topological Indices of Banana Tree Graphs <u>Perera K. K. K. R.</u>
12:30 pm	D65	Identifying the Students' Satisfaction of Online Learning Activities using the Factor Analysis: A Case Study <u>Dilshani S. D. M.</u> , Hansani K. G. P.
12:45 pm	D69	Modelling Non-Linear Exchange Rate Data in Sri Lanka that Exhibit Disturbed Trends Over Time <u>Wickramasinghe W. T. C. M.</u> , Thilan A. W. L. P.
01:00 pm	B02	A Preliminary Study on Identifying Factors Affecting the Hidden Career Paths for Science Graduates and the Level of Job Satisfaction Among the Graduates of State Universities in Sri Lanka Gayashani W. I. A., <u>Weerasinghe W. M. K. W.</u> , Ananda H. N. V., E. P. S. Chandana, Pubudu Mallawaarchchi

Session D-V

Panel Members:

1. Chairperson: Prof. B. G. Sampath A. Pradeep
2. Dr. Upeksha Perera

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

Co-Host: D. G. J. N. Dinanjalee

Zoom link: <https://learn.zoom.us/j/65683269762?pwd=OU1IU0FSV2UzODdneU50VXQ3RE9ldz09>

Time	Abstract Id	Title
11:45 am	D16	Comparison of Greedy Method and Greedy Estimate in Generating Initial Solutions to Closed Small-Scale Capacitated Vehicle Routing Problems <u>S. R. Gnanapragasam</u> , W. B. Daundasekera
12:00 pm	D34	A Novel Procedure for Identifying an Initial Feasible Solution to the Transportation Problem <u>Niluminda K. P. O.</u> , Ekanayake E. M. U. S. B.
12:15 pm	D44	A Mathematical Model for Annual Transfers of Officers in Combined Services: An Application of Assignment Problem <u>Soysa W. R. G.</u> , Samarathunga D. M.
12: 30 pm	D45	An Integer Linear Programming Model in University Examination Timetable Scheduling: A Case Study at University of Ruhuna <u>Hirunika K. A. H.</u> , Samarathunga D. M.
12:45 pm	D67	A Modified Mathematical Model for Diabetic Population Dynamics with Optimal Control Strategies <u>Madhushika T. D. T.</u> , Somathilake L. W., Fernando M. C. S.

Session D-VI

Panel Members:

1. Chairperson: Dr. M. K. Abeyratne
2. Dr. J. A. P. Bodhika

Convener: Dr. K. D. Prasangika

Co-Host: A. A. R. P. Abeysinghe

Zoom link: <https://learn.zoom.us/j/64493015707?pwd=WjlKWHdnTUpxLzBjQ2l6ajRJczRoUT09>

Time	Abstract Id	Title
11:45 am	D50	Analysis of Survivability, Trends, and Status of Sea Turtle Species Found in Sri Lanka <u>Kankanamge L. H.</u> , Premaratne L. P. N. D., Perera H. A. C. C., Perera K. D. H., Zoysa C. D. D.
12:00 pm	D32	Intelligent Based Monitoring and Controlling Method for Aquaponic Systems <u>Hazeef Ahamed M. I. B.</u> , Uditha Isuranga M. P., H.C. Ganegge, D.N. Liyanage
12:15 pm	D59	Clustering of Financial Development Indices using Agnes and AGNES-PCA Algorithms <u>Hulangamuwa R. R. W. B. M. K. B.</u> , Premachandra P. K., Dissanayake R. B. N.
12: 30 pm	C31	Gray Level Co-occurrence Matrix Texture Feature Analysis for Brain Tumor Classification using MRI <u>D. L. D. T. Madushani</u> , W. M. K. De Silva, Mohan Jayathilake, Sahan M Vijithananda, P. D. S. Hareendra Upul
12:45 pm	D78	Mapping Active Stars in Open Clusters of the Milky Way Galaxy - A Preliminary Study <u>Karunaratne V. G. S. I.</u> , Prasad K. V. S., Mahanama G. D. K.

Session D-VII

Panel Members:

1. Chairperson: Dr. N. K. Hettiarachchi
2. Dr. J. M. R.S. Appuhamy

Convener: Ms. K. G. P. Hansani

Co-Host: R. M. V. Lakmini

Zoom link: <https://learn.zoom.us/j/63790149291?pwd=aXB1bTNjc1duK3JEWVVMU1sRjBYUT09>

Time	Abstract Id	Title
11:45 am	D20	Improving the Effectiveness of Cupola Furnace with Air Blower <u>Basith M. F. A.</u> , Subasingha H. L.
12:00 pm	D31	IoT-Based Smart Water Quality Monitoring System <u>Rugzhan P.</u> , Uditha Isuranga M. P., Chanaka Weeraratne, Musthaq Ahamed
12:15 pm	D33	Investigation of An Effective Evaporation Pond for Sea Salt Extraction <u>Mufeeth M. M.</u> , Vitharana.V. H. P.
12: 30 pm	D54	Design of A Potable Tester for Detecting Chemical Contaminants in Banana Fruits C. P. S. Pathirana, <u>D. N. Balasuriya</u>
12:45 pm	D61	Fabrication of Bioplastic using Cotton Waste Generated from Sri Lankan Apparel Industries Pabasara W. G. A., <u>Madushika A. R.</u> , Madushika J. W. A.

Poster Presentations – Category A

Session A-I

Panel Members:

1. Chairperson: Prof. K. A. Sunanda Kodikara-Arachchi
2. Prof. W. G. S. Manel Kumari

Convener: Mr. D. D. N. Sripal

Co-Host: Dr. A. J. D. Perera

Zoom link: <https://learn.zoom.us/j/69530670544?pwd=T2ttTi9DMU9JTTV2QWp5cURINnZidz09>

Time	Abstract ID	Title
2:30 pm	A03	Quality Characteristics and Shelf Life of Chicken Eggs Coated with Different Edible Oils and Stored at Room Temperature_ <u>Hisanithy P., Mahendran T.</u>
2:40 pm	A04	Comparative Antioxidant Activities of Different Vegetative Parts of <i>Artocarpus heterophyllus</i> Lam. <u>Serasinghe S. M. D. N., Rajkumar G., Sanmugarajah V.</u>
2:50 pm	A07	Effect of Selected Pretreatments on Phytochemicals and Antioxidant Activity of Commercially Available horse Gram (<i>Macrotyloma uniflorum</i> (Lam.) Verdc.) Seeds <u>Weerasinghe W. A. A. L., Dissanayake N. P., Sripal D. D. N., Manawadu H. C.</u>
3:00 pm	A09	Utilization of Oyster Mushroom Powder (<i>Pleurotus ostreatus</i>) in the Development of Biscuit <u>Rihan M. H., Roshana M. R., Mahendran T.</u>
3:10 pm	A11	Investigating the Potential of using Jackfruit by-Product Flour in Producing Instant Pasta <u>Dilrukshi H. A., Abeysuriya A. P. H. I., Fernando G. S. N.</u>
3:20 pm	A13	Root Morphological Traits of Selected Rice Varieties Exposed to Salinity at the Seedling Stage <u>Nandasena K. G. R. D., Gunasekara R. D. A., Senanayake R. M. N. H.</u>
3:30 pm	A18	Physicochemical and Functional Properties of Selected Banana Varieties in the Southern Province, Sri Lanka <u>Dhanushka K. L. O., Perumpuli P. A. B. N.</u>
3:40 pm	A19	Identification of Gall Midge (<i>Orseolia oryzae</i>) Resistant Genes in Selected Rice Varieties/ Lines by Molecular Markers <u>Fernando G. R., Dhammika W. A. R., K. K. G. U. Hemamali, A. J. D. Perera, M. A. R. B. Madduma</u>
3:50 pm	A20	Soil Carbon Stock of Coconut Plantations in Southern Coast of Sri Lanka <u>Gunathilaka D. U. V., Julien A., Jayatissa L. P., Rathnayake K. N., Kodikara K. A. S.</u>

Poster Presentations – Category B

Session B-I

Panel Members:

1. Chairperson: Prof. Nishantha Kalutharage
2. Dr. Kumudu Siriwardhana

Convener: Dr. Nadun Ratnaweera

Co-Host: Ms. Jayamini Ratnayaka

Zoom link: <https://learn.zoom.us/j/62446926535?pwd=clYzZTBKZml4SlJrQkxNQlJFT3ovdz09>

Time	Abstract ID	Title
2:30 pm	B07	Characterization of Naturally Occuring Clay Deposits in Ampara District, Sri Lanka <u>Venujah Pratheep</u> , Kapilraj Natkunarajah, Masilamani Koneswaran
2:40 pm	B08	Mineralogical and Chemical Evaluation of Sri Lanka Calcite and Dolomite <u>Kahawatta K. M. R. T. B.</u> , Hewathilake H. P. T. S.
2:50 pm	B09	Evaluation of Antioxidant Activities of Two Polyherbal Formulations (Desadun Kalka and Buddharaja Kalka) Found in Sri Lanka Ayurvedic Treatments <u>Prabhashakya R. H.</u> , Thiripuranathar G.
3:00 pm	B10	Mineralogical and Chemical Evaluation of Five Major Feldspar Mines in Sri Lanka <u>Karunarathna P. P. S.</u> , Hewathilake H. P. T. S.
3:10 pm	B15	Banana Stem as a Waste-Derived Bio-Sorbent to Remove Organics and Nutrients from Rice Mill Wastewater <u>A. F. S. Farwin</u> , M. Pratheepkumar, S. Devaisy
3:20 pm	B16	Low-cost Wearable Non-invasive Sensor Coupled with Arduino Uno system to Monitor Hydration Status during Physical Activity <u>Rajapaksha T. S.</u> , Weerasinghe S., Kaumal, M. N.
3:30 pm	B17	Evaluation of Anti-tyrosinase Activity of Leaf Extracts of <i>Dialium ovoideum thwaites</i> <u>Chathurangani D. A. U.</u> , Dinusha N. Udukala, Medha J. Gunaratna
3:40 pm	B18	Application of Ag/TiO₂ Composite for Waste Water Treatment <u>Tharaka A. A. W.</u> , Siriwardana W. K. K.D.

Poster Presentations – Category C

Session C-I

Panel Members:

1. Chairperson: Senior Prof. (Mrs) W. T. S. Dammini Premachandra
2. Dr. W. A. H. P. Guruge

Convener: Dr. Sandun Bandara

Co-Host: Mr. Hasitha Wijethilake

Zoom link: <https://learn.zoom.us/j/67619201019?pwd=M2xYcUNvbFVqV2JvZk5TZlI3SzU2dz09>

Time	Abstract ID	Title
2:30 pm	C04	Cross Sectional Observation of Siddha Diagnostic Method of <i>Neikuri</i> in <i>Mathumega Noi</i> (Diabetic mellitus Type II) According to <i>Pirakirutti</i> <u>Mathura A.</u> , Thilageswary K.
2:40 pm	C05	A View of Anthropometric Indices Among <i>Mathumega</i> Disease Patients (Diabetic Type II) in the Vadamarachy Area According to Siddha Perspective <u>Mathura A.</u> , Thilageswary K.
2:50 pm	C06	Quantitative Phytochemical Analysis of Eight Plant Materials of Amurthashtaka Kwatha <u>Vinodani L. P. S.</u> , Jayasuriya W. J. A. B. N., Herath H. M. D. R., Hapuarachchi S. D., Dantanarayana P., Suresh T. S.
3:00 pm	C14	Indoor Resting Density Of Vector Mosquitoes (Diptera: Culicidae) in Selected Sites in Galle District of Southern, Sri Lanka <u>D. M. D. S. Dissanayake</u> , H. C. E. Wegiriya
3:10 pm	C18	Factors Associated with Knowledge on Hypertension Among Hypertensive Patients at Teaching Hospital, Jaffna, Sri Lanka <u>Thanushika N.</u> , Bandara A. G. D. I., Thuvaragan S., Guruparan M., Surenthirakumaran R.
3:20 pm	C22	Impacts of Covid-19 Pandemic on the Fish Harvest and the Income of the Marine Fishers in the Chilaw Area <u>Somarathna A. P. H.</u> , Jayathilaka N.
3:30 pm	C26	Current Awareness of COVID-19 among the Residents of Kandy District: An Online Questionnaire-Based Survey Study <u>Galahitiyawa K. G.</u> , Abeysinghe S.
3:40 pm	C28	Occurrence of Gut Acanthocephalans in Frigate Tuna (<i>Auxis thazard</i>) and Mackerel Tuna (<i>Euthynnus affinis</i>) <u>Colonne D. K. C.</u> , Pathirana E., De Silva M. L. I., Pathirana I., Rajapakse R. P. V. J.

Poster Presentations – Category D

Session D-I

Panel Members:

1. Chairperson: Prof. W. A. Indika
2. Dr. Nusrath Hameed

Convener: Ms. M. S. Hiruni Peiris

Co-Host: Chathurani

Zoom link: <https://learn.zoom.us/j/64304801267?pwd=UkFqdFhhb0FLRG5CY0FrRktVK3NaZz09>

Time	Abstract ID	Title
2:30 pm	D01	Liver Disease Detection using CT Images and R2U-NET Algorithm <u>Amarasinghe A. A. K. R., Janarthanan J., Ramanan M.</u>
2:40 pm	D03	Automatic Extraction and Recognition of Sinhala Text from Images with Complex Backgrounds <u>Dasunika A. K. P. J., Wijerathna E. H. M. P. M.</u>
2:50 pm	D05	Automated Lip-Reading Recognition using EfficientNet Architectures <u>Wijerathne W. S. H. L., Hameed P. N., Herath D.</u>
3:00 pm	D06	Public Opinion on Political Changes during Covid-19: A Classification using Machine Learning Algorithms and Twitter Messages <u>Rathnayaka R. M. D. G., Rupasingha R. A. H. M.</u>
3:10 pm	D07	Simulation of Automated Traffic Light System for Cross Junction of Six-lanes Roads using Fuzzy Logic in MATLAB <u>M. Ramya</u>
3:20 pm	D09	A Comparative Study of Predicting the Award-Winning Books using Machine Learning Algorithms <u>Wijekoon S. M. S. T., Rupasingha R. A. H. M.</u>
3:30 pm	D10	Assess the Sri Lanka Employees' Perception on Remote Working in Post-Covid-19 Pandemic <u>Abesiri S. A. D. D., Rupasingha R. A. H. M.</u>

Session D-II

Panel Members:

1. Chairperson: Dr. C. T. Wannige
2. Dr. W. A. Mohotti

Convener: Mrs. T. D. K. Marambe

Co-Host: Thamali

Zoom link: <https://learn.zoom.us/j/66091803159?pwd=ZXE2ZTllaU1uQ2ttcXkzR0tRYVJKZz09>

Time	Abstract ID	Title
2:30 pm	D13	Profanity Word Detection for Sinhala Language using Deep Learning <u>S. K. H. R. S. Kumara</u> , J. K. D. B. G. Jayaneththi
2:40 pm	D101	Automated Prediction of Computer Specification for University Students <u>Senarathna G. P. R. L.</u> , Prabuddhi W. A. M.
2:50 pm	D102	Assessment of ICT Competence for Effective Learning Processes by Undergraduate at Gampaha Wickramarachchi University of Indigenous Medicine Sri Lanka <u>Maleesha R. P. G. S.</u> , Daranagama D. A. N. D., Patirathna Y. H. P. S. S.
3:00 pm	D103	Identifying Factors Affecting the ICT Literacy of the School Teachers: A Case Study of Nuwaragampalatha East Educational Division <u>Wijesinghe R. A.</u> , Pathirathna Y. H. P. S. S.
3:10 pm	D104	Sri Lanka Coconut Type Identification using CNN <u>Tharmiya S.</u> , Gamage C.Y.
3:20 pm	D106	Comparative Study of Protein Structure Predictions for Coronavirus Non-Structural Protein 1 (nsp1) <u>E. S. K. Chandrasekara</u> , A. M. A. P. Kasuni, S. M. Vidanagamachchi
3:30 pm	D107	CNN-LSTM Based Approach to Predict the Sinhala Alphabet Letters <u>Bandara W. M. M. M.</u> , Laksiri P. H. P. N.

Session D-III

Panel Members:

1. Chairperson: Mr. S. A. S. Lorensuhewa
2. Mrs. M. A. L. Kalyani

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

Co-Host: Wathsala

Zoom link: <https://learn.zoom.us/j/63858154108?pwd=SkdFV1doTORJczJkY29ZWmZZMU1EQT09>

Time	Abstract ID	Title
2:30 pm	D108	Identification and Classification of Coryza Infected Chickens in Poultry using Machine Learning <u>Zulmi Z. M., Wijerathna E. H. M. P. M.</u>
2:40 pm	D112	Real-Time Model to Recognize Sinhala Sign Language Based on CNN-LSTM Approach <u>A. M. L. S. Sandaruwan, P. H. P. N. Laksiri</u>
2:50 pm	D114	Identify of Rubber Leaf Diseases using Convolutional Neural Network <u>Chamikara K. W. R., Shakya R. D. N., Jayasinghe P. K. S. C.</u>
3:00 pm	D115	Correlation Analysis and Gradient Boosting for Music Genre Prediction <u>Weerakoon W. M. H. G. T. C. K.</u>
3:10 pm	D116	MRI-ADC Image Texture Feature Analysis to Differentiate Benign and Malignant Brain Tumors <u>Sahan M. Vijithananda, W. Manjula K. De Silva, Mohan L. Jayatilake, Padma B. Hewavithana, Teresa C. Gonçalves, Luis M. Rato, Bimali S. Weerakoon, Tharindu D. Kalupahana</u>
3:20 pm	D117	Sales Forecasting using Improved LSTM Deep Learning Model. <u>R.B.Yeshani</u>

Session D-IV

Panel Members:

1. Chairperson: Dr. N. Yapage
2. Dr. E. J. K. P. Nandani

Convener: Dr. H. L. Jayetileke

Co-Host: H. H. K. D. C. Wickrama

Zoom link: <https://learn.zoom.us/j/67343375745?pwd=QTBpU1U4RVZLbVZqUzliSk5VQlITQT09>

Time	Abstract ID	Title
2:30 pm	D17	Stability Properties of a Delayed HIV Infection Model with Absorption and Apoptosis <u>Silva P. D. N.</u> , Pradeep B. G. S. A. P., Guo S., Rathnayaka N. S.
2:40 pm	D28	Time Series Modelling and Forecasting of Electricity Generation and Consumption in Sri Lanka <u>Tharangi J.</u> , Varathan N.
2:50 pm	D58	Predicting Yellowfin Tuna Stock in Offshore Fisheries in Sri Lanka using Sea Surface Temperature, Sea Surface Salinity, and Chlorophyll Distribution <u>Ananda H. N. V.</u> , Jayasekara L. A. L. W., Deepananda K. H. M. A.
3:00 pm	D60	Modeling Quality of Life of Final Year Students in University of Ruhuna using Multivariate Statistical Techniques Weerasinghe W. M. K. W., Jayasekara L. A. L. W.
3:10 pm	D66	Qualitative Behavior of HIV-1 Delayed Model with Apoptosis and Cure Rate <u>Ayodya S. M. C.</u> , Pradeep B. G. S. A.
3:20 pm	D64	A Discrete Dynamical Model for Gambler's Ruin <u>Sewwandi M. D. S.</u> , Shanthidevi K. C. N.

Session D-V

Panel Members:

1. Chairperson: Dr. L. K. T. Srimal
2. Dr.(Mrs) D. M. K. N. Seneviratna

Convener: Ms. K. G. P. Hansani

Co-Host: .M. P. S. Adhikari

Zoom link: <https://learn.zoom.us/j/66373554657?pwd=SHJudHV4bjZtVm5DYU9WeTA5KzINdz09>

Time	Abstract ID	Title
2:30 pm	D23	Strength Enhancement of Existing Cement Mortar using Termite Clay <u>Herath H. M. L. P.</u> , Jaliya R. G. C.
2:40 pm	D47	Design and Development of A Tire Changing Mechanism for Heavy Vehicles <u>G. P. N. Thilakshena</u> , D. C. Wijewardena.
2:50 pm	D52	Development of A Portable and Low-Cost Haptic Communication Device for Visually Impaired People <u>Gunasekara G. K. S.</u> , Yashodha G. Kondarage, Achintha I. Kondarage
3:00 pm	D38	Comparison of Machine Learning Techniques Used in Type II Diabetes Risk Prediction <u>Kaluarachchi K. N.</u> , Premachandra K. P., Dissanayake R. B. N.
3:10 pm	D62	Identify the Necessity of Conducting a PCR Test for COVID-19 by Random Forest Model <u>Wickramasinghe W. T. C. M.</u> , Rajapaksha R. M. C. M., Ekanayaka K. R. T. A., Samarakkody H. R. S. D., Oshan P. M. C. R., Nandani E. J. K. P.

Session D-VI

Panel Members:

1. Chairperson: Prof. G. D. K. Mahanama
2. Dr. Dr. H. A. D. Saranga. D. Perera

Convener: Dr. K. V. S. Prasadh

Co-Host: R. A. M. Pushpakumara

Zoom link: <https://learn.zoom.us/j/69436502929?pwd=eUI2SDBjeFNUZVU3dVhrb3BqUHFkdz09>

Time	Abstract ID	Title
2:30 pm	D71	Effective Gas Gain and Uniformity Measurement Test for Triple-GEM Detectors for the GE1/1 Muon Upgrade of the CMS Experiment at CERN <u>K. M. Liyanage</u> , N. Perera, B. Kailasapathy, D. C. Wickramarathna, M. Maggi
2:40 pm	D72	Measurement and Reduction of Noise of the Front-End Electronics of GE1/1 Chambers for the CMS Muon Upgrade During Mass Production <u>N. Perera</u> , K. M. Liyanage, B. Kailasapathy, D. D. C. Wickramarathna, M. Maggi
2:50 pm	D75	A Preliminary Study on Sound Transmission Characteristics of Wood Chips in the Application of Noise Insulation <u>T. L. A. N. Chandrasiri</u> , Jayasooriyariya A. P. C. Chethana, J. A. P. Bodhika
3:00 pm	D76	Efficient Distortion Removal in Electrocardiograms by Multichannel Filter Banks <u>Ajward A. M.</u>
3:10 pm	D79	A Study of Pendulum Bob Oscillations of an Undamped Simple Pendulum with Large-Angle Motion <u>Maduwanthi K. W. R. N. N.</u> , Jayatilleke K. P. S.
3:20 pm	D83	A Preliminary Study of an Electronic Model to Analyze the Current-Voltage Characteristics of Semiconductor Nanowires <u>Gayashani W. I. A.</u> , Abeywickrama S. S., Wickramasuriya N. T.
3:30 pm	D84	Investigation of Charging and Discharging Characteristics of Lead-Acid Batteries <u>Wickramarathna D. T. N.</u> , Ranatunga E. M.