

# RISTCON 2020



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**7<sup>th</sup> Ruhuna International Science & Technology Conference**

**22<sup>nd</sup> January 2020**

## **PROGRAM**

**Faculty of Science  
University of Ruhuna  
Matara, Sri Lanka.**



## INAUGURAL SESSION

*Venue: Auditorium at Faculty of Fisheries and Marine Science & Technology*

- 0730 h      Registration
- 0800 h      Arrival of the Chief Guest & Guest of Honors
- 0805 h      Lighting the Traditional Oil Lamp
- 0815 h      University Anthem
- 0820 h      Welcome Address by Dr. Nadeesha Wickramage  
*Chairperson/RISTCON2020*
- 0830 h      Address by Prof. P.A. Jayantha  
*Dean, Faculty of Science, University of Ruhuna*
- 0845 h      Address by the Chief Guest Snr. Prof. Sujeewa Amarasena  
*Vice Chancellor, University of Ruhuna*
- 0900 h      Keynote Address by Prof. Ruey-an Doong  
National Tsing Hua University, Taiwan  
**"Nano materials for Water Purification and Energy Applications"**
- 1000 h      Invited Speech by Prof. K.M. Nalin de Silva  
*University of Colombo, Colombo*  
**"Electrospun nanomaterials for drug delivery, tissue engineering and cancer therapy"**
- 1030 h      Vote of Thanks by Dr. Nishantha Kalutarage  
*Jt. Secretary/RISTCON2020*
- 1040 h      National Anthem
- 1045 h      Closing the Ceremony and Refreshments

## Technical Sessions- Summary Program

*Venue: Science Faculty Complex*

<b>Time</b>	<b>Topic</b>
11.30 – 13.00	Technical session-I (Four parallel sessions) A1, B1, C1, D1-I and D1-II
13.00 – 14.00	<i>Lunch break</i>
14.00 – 15.30	Technical session –II (Four parallel sessions) A2, B2, C2, D2-I and D2-II
15.30 - 16.30	Tea and Poster session
16.30–18.00	Technical session-III (Four parallel sessions) A3, B3, C3, D3-I and D3-II
18.00	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 & ICT, Engineering, Mathematics & Statistics, Nano Technology, Physics & Geophysical Science

## Oral Presentations – Category A

### Session A1

Chairperson: Prof. (Mrs.) W.T.S.D. Premachandra

Session Convener: Mr. D. D. N. Sripal

Time	Abs. No	Title
11.30	A10	<b>A novel parasitic nematode-specific protein as a potential drug target against elephantiasis</b> <u>Dharshika S.A.</u> , Dharshika R., Gowthami M., Silva G.N. and Dassanayake R.S.
11.45	A12	<b>Screening of T<sub>2</sub> transgenic plants to evaluate the expression of RKN parasitism gene</b> <u>Maleesha W.L.D.S.</u> , Rajapakse R.V.D.U.P., Dassanayake R.S.D. and Hettiarachchi G.H.C.M.
12.00	A23	<b>Vocalization behavior of goats (<i>Capra hircus</i>) in relation to two routine management practices: Feeding and Milking</b> <u>Senaratna D.</u> , Priyadarshanie W.A.S. and Atapattu N.S.B.M.
12.15	A24	<b>Preliminary study of PFK1 and PFK2 encoding gene knockout by CRISPR-Cas9 system in MCF7 cancer cells</b> Jayaweera S.P.E., <u>Prasadi W.K.S.</u> , Silva G.N. and Dassanayake R.S.
12.30	A31	<b>Effects of glyphosate banning on maize cultivation; a survey in selected AI divisions in Anuradhapura district</b> <u>Kahawandala K.R.N.S.K.M.B.</u> and Bandara A.M.K.R.
12.45	A32	<b>Effect of simulated digestion using synthetic and natural gastrointestinal enzymes on the total phenol, total flavonoid and antioxidant capacity of commonly consumed raw and boiled legumes in Sri Lanka</b> <u>Afka D.F.</u> , Saritha W., Rizliya V., Kaushalya S., Asini P., Isuri R., Barana J. and Ruvini L.

### Session A2

Chairperson: Prof. (Mrs.) A. L. Ranawake

Session Convener: Mr. D. D. N. Sripal

Time	Abs. No	Title
14.00	A14	<b>Application of an electric potential to retain soil nutrients around the root zone in rice (<i>Oryza sativa</i> L.) using carbon electrodes</b> <u>Athukorala A.N.</u> , Senevirathne G.I., Chaturika J.A.S., Rathuwadu N., Gunawardana M. and De Silva C.S.
14.15	A15	<b>Climate change-related constraints for home gardening of women-headed families in Cheddikulam, Sri Lanka</b> <u>Senarathna S.A.S.R.</u> , Ginigaddara G.A.S., Kodithuwakku A.N. and Vimaladhas V.
14.30	A16	<b>Effect of plant density and leaf pruning on growth and yield performance of okra (<i>Abelmoschus esculentus</i> (L.) Moench) varieties</b> <u>Darmica G.</u> , Sivachandiran S. and Asharp G.

14.45	A18	<b>Cultivation of selected microalgae in dairy wastewater for the production of natural astaxanthin</b> <u>Nishshanka G.K.S.H.</u> , Liyanaarachchi V.C., Nimarshana P.H.V. and Ariyadasa H.L.T.U.
15.00	A25	<b>Identification of sugarcane inter-specific hybrid progenies through conventional and molecular methods</b> <u>Koshila H.V.A.S.</u> , Hemamali K.K.G.U., Wijesuriya A. and Perera A.M.M.S.
15.15	A30	<b>Seed tuber size on growth and yield of selected potato (<i>Solanum tuberosum</i> L.) varieties in Kilinochchi district of dry zone (DI<sub>3</sub>) of Sri Lanka</b> <u>Amirthavarssiny K.</u> , Pradheeban L., Amirthaloyanan A. and Arasakesary S.J.

## Oral Presentations – Category B

### Session B1

Chairperson: Prof. L. P. Jayatissa

Session Convener: Dr. Jeewantha. S. Hewage

Time	Abs. No	Title
11.30	B29	<b>Is the long-term exposure to trace elements and fluoride the main factor for the prevalence of CKDu?</b> <u>Perera W.P.R.T.</u> , Dayananda M.D.N.R., Botheju W.S.M. and Liyanage J.A.
11.45	B31	<b>Fungal laccase activity on degradation of CI Direct Blue 201 textile dye</b> <u>Ekanayake E.M.M.S.</u> , Udayanga D., Wijesekara I. and Manage P.M.
12.00	B32	<b>Effect of salinity in altering microbial biomass carbon at saltmarsh ecosystems at Mannar region, Sri Lanka</b> <u>Dissanayake D.D.M.O.</u> , Jayasinghe J.A.V.R., Perera G.A.D., Kadupitiya H.K., Seneweera S. and Ratnayake R.R.
12.15	B35	<b>Determination of tributyltin in marine water and sediment in commercial and fishery harbors</b> <u>Bandara K.R.V.</u> , Chinthaka S.D.M. and Manage P.M.
12.30	B38	<b>Cyanotoxin contamination in rice grains (<i>Oryza sativa</i>) in two areas where CKDu is highly prevalent and less prevalent in Anuradhapura district, Sri Lanka</b> <u>Abey Siri H.A.S.N.</u> , Wanigasuriya K. and Manage P.M.
12.45	B40	<b>Microbiology as a viable fix for drinking water taste and odour issue; Degradation of geosmin using novel bacteria</b> <u>Ganegoda S.S.</u> and Manage P.M.
13.00	B42	<b>Bioremediation potential of <i>Aspergillus fumigatus</i> to restore some sites contaminated by used lubricating oil</b> <u>Wijesooriya M.M.</u> , Masakorala K., Widana Gamage S.M.K., Jayalal R.G.U. and Walakulu Gamage S.S.

## Session B2

Chairperson: Prof. (Mrs.) Vajira. P. Bulugahapitiya

Session Convener: Dr. M. S. Kodikara

Time	Abs. No	Title
14.00	B6	<b>Aqueous phosphate removal behavior of chemically synthesized vaterite nanoparticles: Isotherms and kinetic study</b> <u>Senarathna D.D.T.T.D.</u> , Rajapakse R.M.G., Abeysooriya K.H.D.N. and Wijenayake W.M.H.K.
14.15	B8	<b>Antioxidant capacity and constituents of the methanolic extract of <i>Phyllanthus maderaspatensis</i> L.</b> Ranasinghe C., <u>Dissanayake D.M.L.C.</u> , Weerakoon S.R., Somaratne S. and Nilakarawasam N.
14.30	B10	<b>Analysis of polycyclic aromatic hydrocarbons in dried black tea</b> <u>Sithara T.A.H.</u> , Marapana R.A.U.J., Liyanage R. and Senanayaka S.
14.45	B15	<b>Maturity dependence of chemical constituents in bark and leaf oil of two varieties of Ceylon cinnamon (<i>Cinnamomum zeylanicum</i> Blume)</b> <u>Wijeweera A.A.</u> , Hewage J.W., Jayasinghe G.G., Hemalika W.S., Hettiarachchi S.R. and Wijesinghe K.G.
15.00	B41	<b>A preliminary investigation of coating properties of different ratios of palm: soy oil-based alkyd: epoxy resins</b> Panamgama L.A., Hewage J.S. and <u>Rathnayaka M.I.V.R.</u>
15.15	B50	<b>Production of biodiesel at room temperature from waste cooking oil</b> <u>Ramaraj N.</u> , Weerasiri K. and Pathirana H.M. K. K.

## Session B3

Chairperson: Snr. Prof. H.M.K.K. Pathirana

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

Time	Abs. No	Title
16.30	B3	<b>Synthesis of Pt(II) complexes of an pyridyl azafluoranthene ligand</b> <u>Perera S.D.</u>
16.45	B19	<b>Removal of calcium ions in aqueous solutions by modified <i>Moringa oleifera</i> fruit coat</b> <u>Dahanayaka H.S.</u> and Prabagar J.
17.00	B21	<b>Biosynthesis of ZnO nanoparticles by leaf extract of <i>Plumeria</i> and characterization</b> <u>Halanayake K.D.</u> , Kalutharage N.K. and Hewage J.W.
17.15	B28	<b>Decolourization of textile dyes by Fenton-like reaction with iron impregnated biochar catalyst from bamboo (<i>Bambusa vulgaris</i>)</b> <u>Gedara Wattage N.T.D.</u> , Kalutharage N.K., Ganaga Badage C.S. and Wanniarachchi S.

17.30	B30	<b>Assessment of airborne emission and impact reduction potentials from Norochholei coal power plant</b> <u>Senadeera K.R.</u> , Adikari P.D. and Rathnayake M.
17.45	B52	<b>Green synthesis of ZnO and Cu-doped ZnO nanoparticles and investigation of their photodegradation ability for textile dyes</b> <u>Sujani I.W.A.</u> , Edussuriya M. and Dissanayake. A.S.

## Oral Presentations – Category C

### Session C1

Chairperson: Prof. Jorge Santos  
Session Convener: Dr. W.A.H.P. Guruge

Time	Abs. No	Title
11.30	C8	<b>Relationship between reservoir morphometry and the culture-based fisheries yield of giant freshwater prawn in selected reservoirs of Sri Lanka</b> <u>Yomal G.A.T.K.</u> , Jayasinghe U.A.D., Deepananda K.H.M.A. and Amarasinghe U.S.
11.45	C14	<b>Effect of seaweeds supplemented diets on growth performances of koi carp (<i>Cyprinus carpio</i> Linnaeus, 1758) fry in laboratory conditions</b> <u>Sudharaka K.G.A.</u> , Munasinghe D.H.N., Guruge W.A.H.P. and Amarasinghe N.J.De S.
12.00	C26	<b>Foraging niche characteristics of mixed species bird flocks in Horton plains national park</b> <u>Kalhari K.M.T.</u> and Mahaulpatha W.A.D.
12.15	C27	<b>Impact of recreational trails on the diversity of tetrapod vertebrates of trailside habitats within Horton plains national park</b> <u>Dhananjani D.M.T.</u> and Mahaulpatha W.A.D.
12.30	C29	<b>Analyses of selected stock parameters of <i>Dasyatis zugei</i> (Müller &amp; Henle, 1841) in Gulf of Mannar, Sri Lanka</b> <u>Gayathry L.D.</u> , Subaha V., Abeygunawardana A.P. and Jayamanne S.C.

### Session C2

Chairperson: Prof. (Mrs). K.B. Suneetha Gunawickrama  
Session Convener: Mr. W.M.P.D. Wijekoon

Time	Abs. No	Title
14.00	C2	<b>Assessment of problematic level of past illicit drug use among male prison inmates in prison, Galle Sri Lanka using drug abuse screening test -20</b> <u>Darshana I.L.A.N.</u> , Ruben R. and Wijesinghe C.J.
14.15	C7	<b>Prevalence, knowledge and associated factors of anaemia among females aged 15 – 70 years in a tea estate community in Hantana, Kandy district, Sri Lanka</b> <u>Sheriff F.A.</u> , Wijesundara C.R., Chathuranga B.A.G. and Banadaranayaka K.O.

14.30	C9	<b>Knowledge of nurses on peripheral intravascular cannula-site infections and its associated factors</b> <u>Deepani H.</u> , Dharmasena A.W.D.A., Namalee E.A.T.B., Gunarathna V.G.A.N. and Sriyani K.A.
14.45	C16	<b>Comparison of the effectiveness of free weight squat training and Smith machine squat training on muscle hypertrophy of recreational athletes</b> Wijerathne P.A.R.C. and Weerathna L.R.N.D
15.00	C18	<b>The effectiveness of buddy strapping vs splinting for treating proximal interphalangeal joint collateral ligament injuries among athletes</b> <u>Samarathunga S.A.E.K.</u> , Weerathna L.R.N.D. and Karunathilake A.

### **Session C3**

Chairperson: Prof. (Mrs.) H.C.E. Wegiriya

Session Convener: Mr. Mr. W.M.P.D. Wijekoon

<b>Time</b>	<b>Abs. No</b>	<b>Title</b>
16.30	C40	<b>Evaluation of in vitro sun screening activity of <i>Solanum violaceum</i> (Thiththa thibbatu) leaf extract</b> <u>Kumari G.K.W.L.R.T.</u> , Dissanayake A.S. and Hettihewa S.K.
16.45	C11	<b>Development of herbal face cream with potential radical scavenging activity using <i>Cassia auriculata</i>, <i>Curcuma longa</i> and <i>Aloe barbadensis</i></b> <u>Madushani S.M.S</u> and Hettihewa S.K
17.00	C23	<b>Weight reduction behaviours among obese young adults in Colombo district, Sri Lanka</b> <u>Priyangika K.G.G.</u> , Wasalathanthri S., Jayawardena R. and Hettiarachchi P.
17.15	C33	<b>Evaluating the types of dysphagia among clients diagnosed with Alzheimer's disease in state sector hospital settings in Western province, Sri Lanka</b> <u>Samanmali M.K.S.</u> , Chathurika L.K.E. and Rathnayaka S.



## Oral Presentations – Category DI

### Session DI-1

Chairperson: Snr. Prof. W.G.D. Dharmaratna

Session Convener: Dr. B.G.S.A. Pradeep

Time	Abs. No	Title
11.30	D17	<b>Classification of autoparatopisms of Latin cubes</b> <u>Kumaranayake M.V.S</u>
11.45	D59	<b>Influence of 5A's on domestic tourists' satisfaction in Hikkaduwa, Sri Lanka</b> <u>Samaraweera K.G. and Upekshani T.G.Y.</u>
12.00	D60	<b>Prime labeling of a star graph</b> <u>Thennakoon T.R.D.S.M. and Perera A.A.I.</u>
12.15	D61	<b>Some results related with fuzzy metric space and strong fuzzy metric space</b> <u>Kajan N., Kannan K. and Sriharan T.</u>
12.30	D62	<b>3-factors of 3-factorization of <math>K_{(3,3,3,\dots,3)}</math> with n-partite sets for all even integers <math>n \geq 2</math></b> <u>Weerarathna M.D.M.C.P., Dissanayake D.M.T.B and Perera A.A.I</u>
12.45	D65	<b>An alternative method to solve a system of one-variable linear congruences with prime moduli</b> <u>Wijerathna P.A.S.D. and Ranasinghe P.G.R.S.</u>

### Session DI-2

Chairperson: Prof. Ruey-an Doong

Session Convener: Dr. Manjula De Silva

Time	Abs. No	Title
14.00	D20	<b>Efficiency enhancement in dye-sensitized solar cells by co-sensitization with CdS quantum dots</b> <u>Jaseetharan T., Dissanayake M.A.K.L. and Senadeera G.K.R.</u>
14.15	D25	<b>Efficiency enhancement in dye sensitized solar cells with blended PVdF-HFP and PEO gel electrolytes</b> <u>Kumari J.M.K.W., Dissanayake M.A.K.L., Senadeera G.K.R. and Thotawatthage C.A.</u>
14.30	D47	<b>Acetonitrile free liquid electrolyte for dye-sensitized solar cells</b> <u>Umair K., Dissanayake M.A.K.L. and Senadeera G.K.R.</u>
14.45	D55	<b>Compressibility characteristics of synthetic municipal solid waste at different phases of biodegradation</b> <u>Pradeep W.T.R.A. and Priyankara N.H.</u>
15.00	D9	<b>Investigate factors causing deviations in construction project schedules and eliminate the reasons cause to projects delays in Sri Lanka</b> <u>Perera H.S., Vijayaragunathan S. and Thalpage R.</u>

### Session DI-3

Chairperson: Prof. K.K.A.S. Yapa  
Session Convener: Mrs. K.M. Liyanage

Time	Abs. No	Title
16.30	D21	<b>Design and construction of a low-cost AC conductivity meter to test solutions</b> <u>Hansini K.L.T.</u> , <u>Abeywickrama S.S.</u> and <u>Wickramasuriya N.T.</u>
16.45	D26	<b>Sumudu decomposition method for solving the “Camassa Holm-nonlinear Schrodinger equation”</b> <u>Thushanthani R.</u> and <u>Mathanaranjan T.</u>
17.00	D33	<b>Analysis of factors affecting on milk consumption among Matara district consumers: A case study</b> <u>Dilshani S.D.M.</u> and <u>Jayasekara L.A.L.W.</u>
17.15	D52	<b>Investigation of sound absorption properties of selected fruit plants</b> <u>Amarasingha N.D.</u> , <u>Thilakarathna D.M.D.N.</u> , <u>Gunasekara T.M.A.D.</u> , <u>Bodhika J.A.P.</u> , <u>Dharmaratna W.G.D.</u> , <u>Jayatissa L.P.</u>
17.30	D56	<b>Unveiling an optimum method for modeling cluster S0 galaxies</b> <u>Samararathna K.G.</u> , <u>Alahakoon A.G.P.D.</u> , <u>Prasadh K.V.S.</u> , <u>Barkhouse W.A.</u> , <u>De Silva W.M.K.</u> , <u>Perera H.A.D.S.D.</u> and <u>Mahanama G.D.K.</u>
17.45	D57	<b>Analysis of the performance of players of cricket world cup 2019 by principal component analysis</b> <u>Wedage L.T.</u> and <u>Jayasekara L.A.L.W.</u>

### **Oral Presentations – Category DII**

#### Session DII-1

Chairperson: Prof. L.A.L.W. Jayasekara  
Session Convener: Dr. K. D. Prasangika

Time	Abs. No	Title
11.30	D3	<b>Survival analysis on end stage renal disease patients in Polonnaruwa district</b> <u>Gunasekera H.S.P.</u> and <u>Satkunanathan N.</u>
11.45	D6	<b>Statistical analysis on factors affecting income-inequality in Sri Lankan labour force</b> <u>Liyana Arachchi L.A.D.D.</u> and <u>Varathan N.</u>
12.00	D24	<b>Time series behavior of Indian visitors to Sri Lanka: A post conflict perception</b> <u>Gnanapragasam S.R.</u>
12.15	D32	<b>Forecasting the price of petroleum products in Sri Lanka</b> <u>Ranawaka R.A.C.S.</u>
12.30	D34	<b>Identifying the factors affecting real LKR/USD exchange rate</b> <u>Perera S.S.N.P.</u> and <u>Lansakara L.H.M.R.B.</u>
12.45	D37	<b>The fama and french three factor model: Evidence from Colombo stock exchange</b> <u>Nayanarasi K.H.D.</u> and <u>Perera S.S.N.</u>

## Session DII-2

Chairperson: Dr. Tharaka S. Ilayperuma  
Session Convener: Dr. S.M. Vidanagamachchi

Time	Abs. No	Title
14.00	D4	<b>An improved Brain-Computer Interfacing (BCI) system using intelligent agents</b> <u>Pathirana S., Asirvatham D. and Johar G.</u>
14.15	D7	<b>Common technique for detecting and correcting both non-word and real-word errors in Tamil sentences</b> <u>Sakuntharaj R. and Mahesan S.</u>
14.30	D11	<b>Real-time identification and classification of sensitive information on information transferring and sharing</b> <u>Abeywardena K.Y, Kahandawaarachchi C., Mahanama V.M., Perera J.K.M.S., Bulathsinghe B.A.P.R. and Mel D.H.V.S.Y.</u>
14.45	D14	<b>Inferring drug repositioning candidates using subnetwork identification</b> <u>Hameed P.N., Verspoor K. and Halgamuge S.</u>
15.00	D42	<b>Gender, race and religion prediction of Sri Lankan personal names using machine learning techniques</b> <u>Chathuranga P.D.T., Loresnsuhewa S.A.S. and Kalyani M.A.L</u>

## Session DII-3

Chairperson: Prof. P.A. Jayantha  
Session Convener: Dr. E.J.K.P. Nandani

Time	Abs. No	Title
16.30	D18	<b>An improved kNN algorithm using K-means and fast Text to predict sentiments expressed in Tamil texts</b> <u>Thavareesan S. and Mahesan S.</u>
16.45	D28	<b>Application of ARIMA and ARIMAX models for forecasting paddy production in Anuradhapura district, Sri Lanka</b> <u>Rathnayaka N.K., Laheetharan A. and Satkunanathan N.</u>
17.00	D36	<b>G- Frames in the quaternionic setting</b> <u>Khokulan M. and Sangarthas M.</u>
17.15	D49	<b>Meshfree based computationally efficient simulation of different shaped plant cells using the cell linked list algorithm</b> <u>Hansani K.G.P., Sumith B. and Karunasena H.C.P.</u>
17.30	D51	<b>Markov chain model application on stock market price of Sri Lankan private banks</b> <u>Anuthrika T. and Jeevana D.</u>
17.45	D54	<b>Building an identity verification system with high security using elliptic curve digital signature algorithm</b> <u>De Silva P.D.D.C. and Yapage N.</u>

## Poster Presentations – Category A

### Session A1

Evaluation Panel: Dr. T.G. Dayananda  
Dr. N.P. Dissanayake

Abs. No	Title
A2	<b>Factors affecting for the consumer demand of selected low country vegetable in Sri Lanka</b> <u>Karunarathna W.M.R.N.</u> and <u>Premarathne N.M.K.C.</u>
A4	<b>Production of <i>Aloe vera</i> incorporated pasteurized herbal milk drink and investigation of its organoleptic properties and shelf life</b> <u>Jayaweera B.P.A.</u> , <u>Nayana P.</u> , <u>Beddegamage N.M.</u> and <u>Vithushana T.</u>
A6	<b>Temporal variation of flowering and fruiting of <i>Calotropis gigantea</i> in southern province, Sri Lanka</b> <u>W.P.S.N. Wijeweera</u> and <u>M.P.K.S.K. de Silva</u>
A7	<b>Study on outbreaks of brown planthopper (<i>Nilaparvata lugens</i>) in rice cultivation; A farmer survey</b> <u>Sarathchandra S.R.</u> , <u>Bandara R.M.U.S.</u> , <u>Senarath S.A.T.P.</u> , <u>Bandaranayake M.A.B.R.P.</u> , <u>Madhuvanathi A.G.N.H.</u> , <u>Perera P.G.K.</u> , <u>Bandara W.M.H.R.S.S.</u> , <u>Dissanayake D.M.O.K.B.</u> and <u>Rajapaksha R.M.C.Y.</u>
A8	<b>Effect of BAP and coconut water on growth and multiplication of immature male flowers of kolikuttu banana (AAB) variety ‘Agra’</b> <u>Shirani D.A.</u> , <u>Wijithasiri P.M.D.I.</u> , <u>Amarasekara D.A.B.N.</u> and <u>Abeysinghe P.D.</u>
A9	<b>Bacterial contamination of three commonly consumed raw vegetables from the Manning market and six selected supermarkets in the Colombo municipality area, Sri Lanka – A Preliminary study</b> <u>Nandasena A.</u> , <u>Wijesundara C.</u> , <u>Chathuranga B.A.G.</u> and <u>Bandaranayaka K.O.</u>
A17	<b>Would biofilm biofertilizer is more useful for okra in sandy regosols</b> <u>Hettiarachchi C.P.</u> , <u>Premamandarajah P.</u> and <u>Seneviratne G.</u>

### Session A2

Evaluation Panel: Dr. K.K.G.U. Hemamali  
Dr. W.S. Hemalika

Abs. No	Title
A20	<b>Foliar application of methanol for mitigation of temperature stress on Okra plants</b> <u>Rasanjali K.G.A.I.</u> , <u>Kumara R.P.D.N.</u> and <u>De Silva C.S.</u>
A21	<b>Comparison of <i>in vitro</i> hydrolysis rates and amylose contents of fifteen commonly available starch sources in Sri Lanka</b> <u>Liyanage R.T.P.</u> , <u>Sewwandi K.</u> , <u>Deen A.</u> , <u>Rathnayake I.</u> , <u>Jayawardana B.C.</u> and <u>Liyanage R.</u>
A22	<b><i>In vitro</i> prebiotic activity and dietary fiber content of fifteen different starch sources in Sri Lanka</b> <u>Sewwandi K.</u> , <u>Liyanage R.T.P.</u> , <u>Deen A.</u> , <u>Rathnayake I.</u> , <u>Polwattage A.S.</u> , <u>Jayawardana B.C.</u> and <u>Liyanage R.</u>

A26	<b>Assessment of vocalization behavior of dairy cows in relation to feeding practice as a measure of welfare</b> <u>Senaratna D.</u> , Senarath D.A.C.S. and Atapattu N.S.B.M.
A28	<b>Pathogens associated with sugarcane (<i>Saccharum officinarum</i> L.) leaf yellowing and mosaic in Sri Lanka</b> <u>Gimhani T.D.M.</u> , Perera A.M.M.S., Wijesuriya A., Abeysinghe S. and Widana Gamage S.M.K.
A35	<b>Assessment of different pretreatment methods to reduce initial microbial load of fresh <i>Moringa oleifera</i> Lam. leaves</b> De Silva E.S.M. and Jayasinghe J.M.J.K.
A17	<b>Would biofilm biofertilizer is more useful for okra in sandy regosols</b> <u>Hettiarachchi C.P.</u> , Premamandarajah P. and Seneviratne G.

## Poster Presentations – Category B

### Session B1

Evaluation Panel: Dr. M. Edusuriya  
Dr. K. Masakorala

Abs. No	Title
B5	<b>Comparison of antimicrobial activities of ethanol, hexane and aqueous extracts of <i>Epaltes divaricata</i> against clinical isolates of methicillin resistant <i>Staphylococcus aureus</i></b> <u>De Zoysa M.H.N.</u> , Hasanga M.R.P., Hewawasam R.P. and Wijayarathne W.M.D.G.B.
B7	<b>Use of MaxEnt modeling in determination of distribution of <i>Calotropis gigantea</i> plant (Apocynaceae) in Sri Lanka</b> <u>Wijeweera W.P.S.N.</u> , De Silva M.P.K.S.K., Dhileepan K. and Senaratne K.A.W.
B9	<b>Assessment of macro-benthic community in the north region of Negombo estuary in relation to physico-chemical parameters</b> <u>Oshadi H.D.C.L.</u> , Jayawardana J.M.C.K. and Mendis B.R.C.
B11	<b>Seed oil variation of plantation grown <i>Santalum album</i> L. due to selected host and agro ecological variation</b> <u>Piyarathna P.H.P.</u> , Subasinghe S.M.C.U.P. and Hettiarachchi D.S.
B13	<b>Impacts of soil erosion and land use on water quality in Samanalawewa watershed, Sri Lanka</b> <u>Kumarasiri A.D.T.N.</u> , Udayakumara E.P.N. and Jayawardana J.M.C.K.
B14	<b>Antibacterial activity of the partitioned fractions of endolichenic fungus <i>Xylaria feejeensis</i> collected from the mangrove plant <i>Rhizophora mucronata</i> in Negombo Lagoon, Sri Lanka</b> <u>Gunawardhana M.H.A.Y.</u> , Wicramarachchi S., Weerasinghe W.R.H. and Paranagama P.A.
B16	<b>Maturity and variety dependence of bioactive constituents of Ceylon cinnamon (<i>Cinnamomum zeylanicum</i> Blume)</b> Wijeweera A.A., Madhushika S., Hemalika W.S., <u>Hettiarachchi S.R.</u> , Hewage J.W., Jayasinghe G.G. and Wijesinghe K.G.

B34	<b>Monitoring of aquatic plant growth using satellite images in Bundala national park, Sri Lanka</b> Chathuranga K.A.M., Rathnamali G.B.M. and Sandamali K.U.J.
B36	<b>Management plan for rehabilitation of degrading Southern coastal lagoons; new directions for wetland management</b> Madarasinghe S.K., Yapa K.K.A.S., Kodikara K.A.S., Dissanayake N.P., Sripal D.D.N. and Jayatissa L.P.
B39	<b>Carbon sequestration potential of <i>Typha angustifolia</i> in Embilikala lagoon in Bundala wetland of Southern Sri Lanka</b> Madushani K.P.K., Ratnayake R.M.C.S., Dahanayaka D.D.G.L. and Amarasinghe M.D.

## **Session B2**

Evaluation Panel: Prof. Jinasena Hewage  
Dr. G.B.C. Sanath

<b>Abs. No</b>	<b>Title</b>
B4	<b>Investigation of the effect of heavy metals and other physico-chemical parameters for the coloration in water of kattakaduwa reservoir</b> Hettiarachchi S.R., Samaraweera C.M.D., Edirisinghe E.A. and Brinili A.D.
B24	<b>Phytochemical analysis and antimicrobial activity of different solvent extracts of stem of <i>Cynanchum viminalis</i> (L.) L. (Muwakeeriya)</b> Jayamani T.H.P., Jeyadevan J.P. and Emmanuel C.J.
B25	<b>Phytochemical screening, profiling and study of antioxidant capacities of fruits of three selected banana varieties</b> Senarathne H.D.S., Attanayake A.P. and Fernando I.R.
B18	<b>Impact of agriculture practices on water quality parameters of ground water from Valikamam area in Jaffna district, Sri Lanka</b> Fasna M.I.F., Prabagar S. and Prabagar J.
B26	<b>Investigation of adsorption properties of <i>Alstonia scholaris</i>, <i>Pagianta dichotoma</i> and <i>Strychnos nux vomica</i> barks for some selected amino acids and dyes</b> Warnasooriya S.R. and Vithanarachchi S.M.
B43	<b>Green corrosion inhibition potential of <i>Gymnema sylvestre</i> and <i>Sargassum</i> sp. extracts in acidic medium</b> Patabendige N.M. and Fernando K.R.
B44	<b><i>In vitro</i> assessment of antioxidant, antimicrobial and phytochemical screening of crude methanolic extract of leaves of <i>Murraya koenigii</i> growing in Sri Lanka</b> Abeyasinghe T., Kumara K.A.H., Alwis D.D.D.H. and Chandrika U.G.
B46	<b>Effects of gamma irradiation on the growth and yield of green gram (<i>Vigna radiata</i>)</b> Rathnayake H.K.L.M., Pathmathas T., Vengadaramana A. and Ramalingam A.
B49	<b>Effect of plant phenolics on physicochemical properties of gelatin films</b> Panamgama L.A., Perera S.A.S.P. and Jayasekara H.D.
B51	<b>Synthesis of fatty acid diethanolamides from microalgal biomass</b> Fernando H.S.S., Lakmali W.G.M., Athukorala S.N.P., Jayasundera K.B. and Yapa Y.M.A.L.W.

## Poster Presentations – Category C

### Session C1

Evaluation Panel: Dr. W.A.P.H. Guruge  
Dr. S. Wanniarachchi

Abs. No	Title
C3	<b>Development of a method to calculate muscle resistivity of baseball pitchers</b> <u>Herath H.M.U.K.K.</u> and Weerakkody P.P.
C17	<b>Knowledge and practices regarding usage of sublingual Glyceryl Trinitrate tablets</b> <u>Thanujah M.</u> , Thuvaragan S., Coonghe P.A.D. and Guruparan M.
C19	<b>Knowledge and practice regarding multi-dose eye drops usage among glaucoma patients</b> <u>Rangana Ishara H.M.</u> , Thuvaragan S., Coonghe P.A.D. and Chandrakumar S.T.S.
C21	<b>Patient's views on use of computers in consultation room and its effect on doctor-patient relationship</b> <u>Madhuwanthi R.M.</u> and Marasinghe .R.B.
C30	<b>A survey on vocal hygiene practices among female primary school teachers in Minuwangoda educational zone</b> <u>Thilakarathne J.A.L.I.</u> and Jayasena B.N.
C31	<b>Attitudes and knowledge of Sri Lankan speech and language therapists towards stammering</b> <u>Kumara J.A.L.R.</u> , De Silva M.D.K. and Sivasubramaniam G.
C32	<b>Analysis of selected physiological parameters of elite male triathletes in Sri Lanka</b> <u>Perera M.K.K.</u> and Weerathna L.R.N.D.
C37	<b>Evaluation of antibacterial activity in <i>Nelumbo nucifera</i> white flower</b> <u>Mohanasundaram T.</u> , Wijesekera K. and Napagoda M.T.

### Session C2

Evaluation Panel: Prof. D.H.N. Munasinghe,  
Prof. L.A. Panamgama

Abs. No	Title
C12	<b>Seasonal variation of biodiversity and rock pool water quality in Wellamadama rocky intertidal zone of Matara, Sri Lanka</b> <u>Wickramasinghe M.P.</u> , Sudarshani K.A.M. and Wegiriya H.C.E.
C13	<b>Foraging behaviour of oriental dwarf kingfisher (<i>Ceyx erithaca</i>) in tropical wet evergreen forests of Sabaragamuwa province, Sri Lanka</b> <u>Chandrasiri P.H.S.P.</u> , Priyadarshana L.M. and Chandrasiri P.H.B.N.
C15	<b>Effect of the sub-lethal concentrations of urea on the development of endemic arboreal tree frog <i>Polypedatus cruciger</i> (Amphibia: Racophoridae)</b> <u>Senevirathna K.G.</u> , Sudharshani K.A.M. and Wegiriya H.C.E.

C22	<b>Mild-stinging jellyfishes reported off coastal waters of Sri Lanka</b> <u>Karunaratne K.D.</u> and De Croos M.D.S.T.
C28	<b>Attitudes towards dispensing errors among state pharmacists and dispensers in Jaffna district</b> <u>Danapala D.M.S.M.K.</u> , Thuvaragan S., Surendrakumaran R. and Thiyahiny S.N.
C34	<b>Knowledge and attitudes of caregivers towards Aphasia within the government hospital settings in the Gampaha district: based on Life Participation of Aphasia Approach (LPAA)</b> <u>Jayarathna T.V.</u> , Rathnayake S. and Mettananda K.C.D.
C38	<b>A cross-sectional study of popularity and usage of skin care products among users in Gampaha district, Sri Lanka</b> <u>Edirisinghe J.U.</u> , Napagoda M.T. and Wijesekera K.
C41	<b>Peri-domestic factors associated with transmission of cutaneous leishmaniasis in selected areas in Hambantota district, Sri Lanka</b> <u>Sudarshani K.A.M.</u> , Eswaramohan T., Murugananthan A. and Wegiriya H.C.E.
C42	<b>Blood parasites and blood cell analysis of dogs reported to veterinary clinics in selected areas in Matara district, Sri Lanka</b> <u>Wijesingha H.M.N.P.</u> , Sudarshani K.A.M. and Wegiriya H.C.E.

## Poster Presentations – Category D

### Session D1

Evaluation Panel: Dr. J.A. Jeewanie  
Dr. C.T. Wannige

Abs. No	Title
D41	<b>Reconstructing an image from its spatial and geometrical information</b> <u>Pasindu R.</u> and Mayurathan B.
D44	<b>Enhancing the performance of convolutional neural networks based on preprocessing of datasets</b> <u>Priyatharsan U.</u> and Hemija Sarawana P.
D4	<b>A classifier ensemble model for music emotion classification</b> <u>Charles J.</u> and Lekamge L.S.
D58	<b>User-friendly mobile-based application for agricultural activities in Sri Lanka</b> <u>Gunawardana D.A.Y.K.</u> , Walisadeera A.I. and Madushika M.K.S.
D72	<b>Customer churn prediction model in mobile telecommunication using machine learning</b> <u>Chathuranga L.L.G.</u> , Rathnayaka R.M., Arumawadu H.I., and Chathurangi K.A.A.



## Session D2

Evaluation Panel: Dr. J.A.P. Bodhika  
Mr. E.M. Ranathunga

<b>Abs. No</b>	<b>Title</b>
D12	<b>Challenges in the present public transportation system in Kilinochchi</b> Randeniya R.D.S.S., Perera W.U.L.D.P. and Anburuvel A.
D16	<b>Intraframe image processing algorithm for identifying meteors in all-sky images</b> Alahakoon A.G.P.D., Amaradasa H.D.S., Prasad K.V.S., Vidanagamachchi S.M., Wickramage N.M. and Mahanama G.D.K.
D38	<b>ZnS buffer layer for CdS/CdTe based solar cells – A preliminary study</b> Madhuwanthi H.M.L.U., Mahanama G.D.K. and De Silva D.S.M.
D48	<b>Construction of a nichrome based hot-wire anemometer</b> Kankanamge B.L. and Jayatilleke K.P.S.
D50	<b>Poly (methyl methacrylate) based gel-polymer electrolytes for sodium-ion secondary batteries - A comparative study with different ionic salts</b> Jayamaha J.H.T.B., Menisha G., Keppetiyawa K.G.H.S., Senavirathna S.L.N., Vignarooban K., Sashikesh G., Veluathamurthy K., Wijayasinghe H.W.M.A.C. and Dissanayake M.A.K.L.

## Session D3

Evaluation Panel: Dr. G.D.K. Mahanama  
Dr. K.P.S. Jayathilake

<b>Abs. No</b>	<b>Title</b>
D22	<b>A fast and efficient random flicker detection system based on a novel low-pass quadrature filter</b> Ajward A.M.
D23	<b>Photoanode with hybrid TiO<sub>2</sub> nanoparticles/hierarchically structured TiO<sub>2</sub> microspheres for efficient dye-sensitized solar cells</b> Senthuran S., Dissanayake M.A.K.L. and Senadeera G.K.R.
D27	<b>Low cost counter electrode for dye-sensitized solar cells using activated coconut shell charcoal with jack fruit latex as the binder</b> Dissanayake P.N., Kumara G.R.A., Karunarathne D.G.B.C., Kumarasinghe K.D.M.S.P.K. and Sirimanne P.M.
D39	<b>A preliminary study on adverse health impacts due to occupational noise exposure in teaching environment</b> Perera T.C.I., Abeysuriya U.I.P., Amarasingha N.D., Sethunga S.M.N. and Bodhika J.A.P.
D53	<b>Noise level measurements at Matara city</b> Amarasingha N.D., Thilakarathna D.M.D.N., Rathnayaka R.M.B.D., Sethunga S.M.N., Bodhika J.A.P. and Dharmarathna W.G.D.

## **Session D4**

Evaluation Panel: Dr. M. K. Abeyratne  
Dr. B.G.S.A. Pradeep

<b>Abs. No</b>	<b>Title</b>
D2	<b>Granger causality between dengue and climatic variables in Colombo, Sri Lanka</b> <u>Attanayake A.M.C.H., Perera S.S.N. and Liyanage U.P.</u>
D5	<b>Evaluating the profitability of licensed Commercial banks in Sri Lanka</b> <u>Kumarihamy A.W.M.S.N. and Perera S.S.N.</u>
D13	<b>Application of Markov random fields in image restoration</b> <u>Bandara S.M.G.S. and Yapage N.</u>
D15	<b>A study on economy of fish harvesting in Sri Lanka</b> <u>Lakmali T.H.R. and Shanthidevi K.C.N.</u>
D35	<b>On forecasting ability of the artificial neural network model in time series data: Based on gold price in Sri Lanka</b> <u>Gunarathna I.G.I.S.C. and Nandani E.J.K.P.</u>
D45	<b>Estimation of the size of the stray dog population, case study for the Dickwella divisional secretariat, Matara, Sri Lanka</b> <u>Sudarshani E.G.D., Malkanthi S.H.K. and Jayasekara L.A.L.W.</u>