

# Programme Book



## IRCUWU 2022

6<sup>TH</sup> INTERNATIONAL RESEARCH CONFERENCE

JULY 28<sup>TH</sup> & 29<sup>TH</sup>, 2022

*“Elevating the quest for resilience to spring forward”*

Uva Wellassa University of Sri Lanka

## Table of Contents

IRC UWU 2022	01
Keynote Speakers	02
Programme at a Glance	06
Conference Tracks	08
Technical Sessions	
▪ Agriculture & Animal Husbandry	10
▪ Aquaculture & Fisheries	14
▪ Business Management	18
▪ Computing & Informatics	22
▪ Engineering & Technology	26
▪ Environmental Sciences	30
▪ Food Sciences & Bioprocesses	34
▪ Hospitality & Tourism	38
▪ Humanities, Social & Library Sciences	42
▪ Material & Mineral Sciences	46
Committees–IRC UWU 2022	50
Past Symposia	53
Uva Wellassa University	59
Main Sponsors	61

## IRC UWU 2022

Uva Wellassa University was established as the first entrepreneurial university of Sri Lanka with the aim of producing graduates with exceptional entrepreneurial and technical skills specialized towards adding value to Sri Lanka's resource base. IRC UWU 2022 is yet another important milestone which marks the university's journey towards research excellence. IRC UWU 2022, once again brought forward as an online conference, intends the dissemination of research findings of Uva Wellassa University as well as those of other local and foreign participants.

Under the theme of "*Elevating the quest for resilience to spring forward*", the conference explores the potential for overcoming adversities and reaching socio-economic progress through information and innovation. IRC UWU 2022 invites all researchers, scientists, scholars, industrialists, professionals and students to come together to share and review their novel findings and innovations under ten thematic areas;

- Agriculture & Animal Husbandry
- Aquaculture & Fisheries
- Business Management
- Computing & Informatics
- Engineering & Technology
- Environmental Sciences
- Food Sciences & Bioprocesses
- Hospitality & Tourism
- Humanities, Social & Library Sciences
- Material & Mineral Sciences

Scholars will present 221 research findings under ten thematic areas in IRC UWU 2022, that are selected from the 489 abstracts following an extensive peer-review procedure. These abstracts are published online as an electronic archive in the university web system.

## Keynote Speakers



### **Professor Jung Min Heo**

Division of Animal and Dairy Science  
Chungnam National University  
Daejeon, South Korea

Professor Jung Min Heo is a renowned Professor in Animal Science, and currently serving as the Vice Dean of the College of Agriculture and Life Sciences, Chungnam National University, South Korea since 2020. He has contributed part of his academic career as the Director of the Animal Research Center (2018 to 2020) and as the Head of the Department of Animal Science and Biotechnology (2018 to 2020) at Chungnam National University. Further, he is the Executive Director of the Korean Society of Poultry Science and an active member of the American Society of Animal Science and the Korean Society of Animal Sciences and Technology.

Prof. Heo obtained his first degree, Bachelor of Animal Science from Chungnam National University, Daejeon, South Korea in 2003 and he ascended his academic ladder by completing his Master's Degree of Nutritional Science from the same university in 2005 by completing the project entitled "Effect of different growth stages of winter cereal crops on the quality of silage materials and Silages". In 2010, he acquired his PhD in Animal Nutrition from the Animal Research Institute, School of Veterinary Biology and Biomedical Sciences, Murdoch University, Murdoch, Australia, with the project titled "Reducing the protein content in diets for pigs to control post-weaning diarrhoea: Metabolic and physiological responses of the gastrointestinal tract". Sharpening and embellishing his scholarly perfections, he served as a postdoctoral researcher at the University of Manitoba, Canada from 2010 to 2013.

Manifesting his academic distinctions, he was awarded a number of scholarships, including the Murdoch International Postgraduate Scholarship from Murdoch University in 2007 and a four-year scholarship for being the outstanding undergraduate student in the Major of Animal Science and Biotechnology in Chungnam National University, Daejeon, South Korea in 2001.

His major research interests are digestive physiology of pigs and chickens, feed ingredient evaluation for monogastric, nutrition and gut health interactions, and nutrition & the environment. Considering the courses he is lecturing on, Advanced Animal Biochemistry, Advanced Feed Science, and Advanced Poultry Production are highlighted as graduate courses, while Animal Biochemistry, Poultry Production and Practice, Feed Science, Animal Feeds and Feeding are highlighted as undergraduate courses.

The completion of over 58 research projects as the Principal Investigator (PI) and major participant over the span of nine years speaks highly of his research excellence and diligence. They include various pivotal scientific themes, including "Development of Korean Native Chicken using genomic selection and crossbreeding", "Livestock transportation and lairage conditions in consideration of animal welfare", "Development of autonomous driving robot for litter management of duck farm", "The study of protein and amino acid of standard for raise stage of poultry", "Efficacy of next-generation anti-coccidiosis formulae on the performance of broilers and cocci elimination" which were funded by the Rural Development Administration, government and industries in South Korea.

Further, Prof. Heo has extended his academic and experimental mastery to many other collaborative types of research, including "Effect of partial replacement of corn with breadfruit (*Artocarpus altilis*) flour on growth performance and meat quality of broiler chickens", "Responses in growth performance and nutrient digestibility to a multi-protease supplementation in amino acid-deficient broiler diets", "Multi-carbohydrate application into energy and amino acid deficient broiler diets: A strategy to enhance performance of broiler chickens", conducted collaboratively with Uva Wellassa University of Sri Lanka.

By providing solid evidence in his premier research capacities and enthusiasm, he has published over 130 scientific papers in peer-reviewed journals (h-index: 18) with more than 1,500 citations, including over 70 papers in scientific citation index (SCI) journals. Moreover, in the nine years of his academic career as a Professor, he has supervised 17 Doctoral students and 17 Master's students.

## Keynote Speakers



**Prof. Dr. Amiya Bhaumik**  
Lincoln University College  
Petaling Jaya, Malaysia

Dr. Amiya Bhaumik is the Founder and President of Lincoln University College–Malaysia. He is a pioneer in the field of education. With more than 28 years of teaching, research and educational management experience, he held many international educational positions in both academic and administrative levels. He has published many articles on several journals and has also edited many books that are widely used and benefitted academics and researchers. He holds seven intellectual property patents.

Dr. Amiya Bhaumik was awarded BSc in Biology from University of Calcutta, India, MA in Cultural Anthropology from University of Lucknow, India, MBA in International Management from University of Malaya, and completed his PhD. in Cultural Anthropology from University of Lucknow. He held the position of Director of International for Ottawa University, USA for setting up various international educational collaborative programs, faculty exchange, research, new educational ventures and startups. Having traveled extensively in Europe, Africa, Asia, North America, Latin America, and Australia during his tenure, Dr. Bhaumik gathered a lot of experience and exposure in different cultures and educational techniques. He worked with the National Council of Educational Research and Training, Ministry of Education, India and worked with UNESCO for Educational Project Management.

Dr. Amiya Bhaumik has been inspired by President Abraham Lincoln to provide education to the global community, especially to residents of Selangor. Hence, he established the Lincoln University College and European Technical and Vocational Academy in Selangor. Dr. Bhaumik has helped over 10,000 foreign students in pursuing their higher educational dreams at Lincoln University. He actively engages in many social and welfare activities as a part of his social responsibility initiatives. Dr. Bhaumik has also set up the Lincoln Foundation to provide scholarships for students who are residents of Selangor. The Lincoln Trust will be in the forefront of managing welfare centers for children, hospitals and blood banks in providing medical aid and housing for the less privileged.

He has recently set up the European Technical and Vocational Academy in collaboration with The European Skill Academy which will help Selangor resident acquire modern skills through 'on the job' training. The Academy has been approved by the Ministry of Human Resources. Selangor residents who do not have formal qualifications can go through the academy for the required skills to become entrepreneurs.

Dr. Bhaumik's personal belief as per Vivekananda's ideology is that education and training will help every human being to manifest their own potential, divine strength, and power which is already present within them. He believes that all of us, as educators, should help mankind to manifest this hidden divine power. He believes in Vivekananda's philosophy; "Believe in yourself and you will achieve your goal."

.

## Programme at a Glance

**28<sup>th</sup> July 2022**

### **Inaugural Session**

08:00	Desk Registration
09:00	Lighting the Oil Lamp, National and University Anthems
09:10	Welcome speech by the Conference Coordinator-Dr. K.M.M.C.B. Kulathunga
09:20	Address by Chairman/Research Committee-Prof. H.M.J.C. Pitawala
09:30	Address by the Vice Chancellor- Prof. J. L. Ratnasekera
09:45	Launching of Proceedings and Video Highlights of IRCUWU2022
10:00	Keynote Speech – Prof. Jung Min Heo, Chungnam National University, South Korea
10:20	UWU Research Awards
10:30	Vote of Thanks by the Conference Secretary - Dr. N.M.N. Nambapana
10:40	Refreshment

### **Technical Sessions**

11:00 – 13:00	Technical Session I (10 Parallel Tracks)
13:00 – 14:00	Session Break
14:00 – 15:40	Technical Session I (10 Parallel Tracks)
15:40 – 16:00	Session Break
16:00 – 17:00	Technical Session I (06 Parallel Tracks)



## 29<sup>th</sup> July 2022

- 09:00 – 09:20      Keynote Speech – Prof. Dr. Amiya Bhaumik, Lincoln University College, Malaysia
- 09:30 – 11:10      Technical Session II (10 Parallel Tracks)
- 11:10 – 11:30      Session Break
- 11:30 – 13:10      Technical Session II (10 Parallel Tracks)

## Conference Tracks

01. Agriculture & Animal Husbandry
02. Aquaculture & Fisheries
03. Business Management
04. Computing & Informatics
05. Engineering & Technology
06. Environmental Sciences
07. Food Science & Bioprocesses
08. Hospitality & Tourism
09. Humanities, Social & Library Sciences
10. Material & Mineral Sciences

# Technical Sessions

## AGRICULTURE & ANIMAL HUSBANDRY

**28th July 2022 (Session I: 11:00–16:40)**

Panel Members: **Dr. R.A.P.I.S. Dharmadasa** (Uva Wellassa University of Sri Lanka)  
**Dr. R.P.D. Gunathilakae** (Uva Wellassa University of Sri Lanka)  
**Dr. M.W.A.C.S. Wijetunga** (Uva Wellassa University of Sri Lanka)  
**Dr. T. Geretharan** (Eastern University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>180</b> 11:00-11:20	<b>Value chain analysis for disregarded economically potential plants in Sri Lanka: With reference to <i>Moringa oleifera</i></b> <i>S.T.N. Samarawickrama, J.C. Edirisinghe and K.P.N.G. Kanuwana</i>
<b>333</b> 11:20-11:40	<b>A study on the status of adoption of standards by tea export firms in Sri Lanka to comply with international market requirements</b> <i>M.H.N. De Silva and M. Esham</i>
<b>335</b> 11:40-12:00	<b>Study on implementation and continuation of good agricultural practices among fruit and vegetable farmers in Kegalle District</b> <i>A.D. Abeygunasekara, S.H.P. Malkanthi and A.S.M. Roshan</i>
<b>471</b> 12:00-12:20	<b>Study on the degree of satisfaction of supply chain stakeholders on the transformation of conventional tea auction into an e-auction</b> <i>C.K. Welhena, M.K.S.L.D. Amarathunga, H. De Mel and K.P.M. Kahandage</i>
<b>489</b> 12:20-12:40	<b>Impact of export diversification on economic growth in Sri Lanka: An application of auto regressive distributed lag model</b> <i>J.M.T.I. Jayasundara, E.A.C. Priyankara and C.S. Wijetunga</i>
<b>496</b> 12:40-13:00	<b>Factors determining the demand for food diversity in urban sector of Sri Lanka</b> <i>D.D.S. Dissanayake, S.D. Rathnayaka and B.C.H. Maduwanthi</i>
13:00-14:00	<b>SESSION BREAK</b>

Panel Members: **Prof. P.E. Kaliyadasa** (Uva Wellassa University of Sri Lanka)  
**Dr. M.K. Meegahakumbura** (Uva Wellassa University of Sri Lanka)  
**Dr. N. W. Gunasekara** (Uva Wellassa University of Sri Lanka)  
**Dr. R. Eeswaran** (University of Jaffna)

- 
- 032** **Nitrogen, phosphorus and potassium concentrations in rice grains produced under organic and inorganic nutrient management systems**  
 14:00-14:20  
*N.A.S.A. Neththasinghe, E.D.C.T. Chandrasekara and L.D.B. Suriyagoda*
- 090** **Seasonal and genotypic variations of total monomeric anthocyanins and total catechins in selected purple genotypes of tea (*Camellia sinensis* (L.) O. Kuntze) and the relationship between anthocyanins and blister blight disease severity**  
 14:20-14:40  
*M. Niranjan, M.A.B. Ranatunga and G.D. Sinniah*
- 249** **Effect of 1-methylcyclopropene on shelf-life and postharvest qualities of two yardlong bean (*Vigna unguiculata*) varieties**  
 14:40-15:00  
*R.A.T.M. Ranaweera and G.D.K. Kumara*
- 282** **Home gardening in Sri Lanka in response to the Covid-19 pandemic**  
 15:00-15:20  
*U.G.N. Perera, K. Yakandawala, N.W.A.L. Udayanga and D.M.A.E.I. Dewagedara*
- 332** **Morphological and molecular screening of fifteen finger millet (*Eleusine coracana*) genotypes in Sri Lanka for salt tolerance at seedling stage**  
 15:20-15:40  
*M.N.U. Fernando, D.R. Gimhani, G.P.G.I. Thakshil and D.C.M.S.I. Wijewardana*
- 15:40-16:00 **SESSION BREAK**
- 362** **Evaluation of agronomic, yield and yield related characteristics of selected exotic rice germplasms under Sri Lankan field condition**  
 16:00-16:20  
*R.P.D.S. Anurasena, K.M. Koralage, W.D.P. Weerasinghe, K.A.A.L. Weerasingha, M.H.T.K. Chandrasiri, J.K.H. Sampath and K.B. Wijesekara*
- 448** **Development of low caffeine genotypes by backcross breeding of tea (*Camellia sinensis* (L.) O. Kuntze)**  
 16:20-16:40  
*M. Vithusha, M.A.B. Ranatunga, K.G.B.A. Samarasinghe, M.K. Meegahakumbura and K.G.N.P. Piyasena*
- 16:40 **END OF SESSION**

29th July 2022 (Session II: 09:30–13:30)

Panel Members: **Prof. E.D.N.S. Abeyrathne** (Uva Wellassa University of Sri Lanka)  
Dr. Chandima Gajaweera (University of Ruhuna)  
Dr. T.S.R. Fernando (Uva Wellassa University of Sri Lanka)  
Dr. R.M.H. Tharangani (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>062</b>	<b><i>Spirulina platensis</i>: Growth and meat quality enhancer in broilers</b>
09:30-09:50	<u>J. N. K. Disanayaka, P. Weththasinghe and B.C. Jayawardana</u>
<b>073</b>	<b>Organic selenized yeast influenced growth, oxidative stress, and selenium accumulation in young chickens with mixed <i>Eimeria</i> infection</b>
09:50-10:10	<u>S.S. Wickramasuriya, I. Park and H.S. Lillehoj</u>
<b>100</b>	<b>Phylogenetic characterization of the non-descriptive indigenous cattle population in the northern province of Sri Lanka using mitochondrial cytochrome <i>b</i> region</b>
10:10-10:30	<u>K.G.C.B. Wijebandara, M.S. Kurukulasuriya and G.L.L.P. Silva</u>
<b>120</b>	<b>Dietary crude protein and apparent metabolisable energy interactively influence growth performance and carcass traits in broiler chickens from 14 to 35 days post-hatch</b>
10:30-10:50	<u>S.P. Macelline, P.V. Chrystal, M. Toghyani, P.H. Selle and S.Y. Liu</u>
<b>130</b>	<b>The risk of spreading African swine fever in Sri Lanka</b>
10:50-11:10	<u>L.N. Ranathunga, P. Manjula, P.S. Dahanayake, T.D. Liyanage and N.A.P. Krishanthi</u>
11:10-11:30	<b>SESSION BREAK</b>
<b>134</b>	<b>Avocado seed powder as a partial replacement of maize in quail diet</b>
11:30-11:50	<u>Y.A.C. Chandrapala, S.S. Wickramasuriya, S.R. Nawarathne, P. Manjula and N.M.N. Nambapana</u>
<b>186</b>	<b>Effectiveness of beneficial <i>Bacillus</i> species to control bovine mastitis</b>
11:50-12:10	<u>W.H.G.O. Weerasinghe, G.A. Gunawardana, H.M.I.G.S.R.B. Herath, T.S.R. Fernando and P. Manjula</u>

**214**

12:10-12:30

**Effects of thermal stress on physiological and blood parameter changes on selective cattle breeds in dry zone**

T.G.T. Udayanga, D.N.N. Madushanka and K. Thananjayan

**215**

12:30-12:50

**Isolation of *Escherichia coli*, *Proteus* and *Salmonella* spp. from beef and pork and their sensitivity to commonly used antibiotics**

G.K.N.G. Thilakarathna, S.U. Pathiranage, K.A.D.I. Madumali, M.M.F. Ishra, J.L.C.S. Perera, D.N.N. Madushanka, T.S.P. Jayaweera and H.A.D. Ruwandeepika

**446**

12:50-13:10

***Azolla pinnata* as a feed substitute for improved performance in laying hens during the peak-production period**

B.G.A.C. Sandaruwan, P. Manjula and S.P. Macelline

**469**

13:10-13:30

**The impact of transportation distance on PSE and DFD occurrences in chicken meat at a commercial broiler processing plant and their effect on quality attributes of breast meat**

H.M.A. Sajana, S.R. Nawarathne, S.P. Macelline, W. Jeewanthi, P. Manjula, R. Mahindasiri and D.D. Jayasena

13:30

**END OF SESSION**

**AQUACULTURE & FISHERIES**
**28<sup>th</sup> July 2022 (Session I: 11:00–15:40)**

Panel Members      **Mr. N.P.P. Liyanage** (Uva Wellassa University of Sri Lanka)  
 Dr. D.P.N. De Silva (Uva Wellassa University of Sri Lanka)  
 Ms. I.U. Wickramaratne (Uva Wellassa University of Sri Lanka)

<b>Paper ID</b>	<b>Title of Abstract</b>
<b>Time</b>	<b>Names of Authors</b>
<b>155</b>	<b>Livelihood status of fishing community in Deduru Oya reservoir, Sri Lanka</b>
11:00-11:20	<i>W.M.S.U. Dassanayake, I.U. Wickramaratne and P.C.B. Dias</i>
<b>156</b>	<b>Livelihood status of fishing community of Mahakanadarawa reservoir in Anuradhapura, Sri Lanka</b>
11:20-11:40	<i>C.K. Illangasingha, I.U. Wickramaratne and P.C.B. Dias</i>
<b>244</b>	<b>How women contribution to improve fisheries sector in Sri Lanka</b>
11:40-12:00	<i>K.T.N.P. Gunarathna and W.A.A.D.L. Wickramasinghe</i>
<b>288</b>	<b>A preliminary study on status of fishing gear types in the shrimp fishery in Jaffna lagoon, Sri Lanka</b>
12:00-12:20	<i>N. Ragavan, D.C.T. Dissanayake, S. Kuganathan and S. A. Khan</i>
<b>371</b>	<b>An island-wide survey on household fish and seafood consumption in Sri Lanka</b>
12:20-12:40	<i>D.M.O. Bimalaka, N.P.P. Liyanage and A.S. Mahaliyana</i>
<b>379</b>	<b>A preliminary survey on socio-economic status of Navanthurai and Karainagar lagoon fishing villages, Northern Sri Lanka</b>
12:40-13:00	<i>A. Kobitha, I.U. Wickramaratne and J. Suthakaran</i>
13:00-14:00	<b>SESSION BREAK</b>



**382**

14:00-14:20

**Indigenous fishing knowledge of fishing practices in Kokkilai lagoon, Sri Lanka**

*T. Jeyamohan, I.U. Wickramaratne, E.P.D.N. Thilakarathne and V. Kalistan*

**393**

14:20-14:40

**A study on livelihood aspects of *Kappaphycus alvarezii* seaweed farmers in Valaipadu, Sri Lanka**

*A.J. Jensiya, B.V.A.S.M. Bambaranda, J.A. Athula, B. Nirooparaj and R. Ruangchuay*

**415**

14:40-15:00

**Zebrafish as a model for aging**

*H.M.M. Madushani and D.P.N. De Silva*

**430**

15:00-15:20

**Study of food sources and feeding habits of selected freshwater fish in five reservoirs of Monaragala District**

*J.M.C.M. Jayawardhana, A.C.W.W.M.C.L.K. Coswatte and N.P.P. Liyanage*

**483**

15:20-15:40

**Molecular detection of Megalocytivirus isolates in sea caged Asian seabass (*Lates calcarifer*) in Sri Lanka**

*W.M.L.A. Wanasinghe, V. Sakajamary and M.N.M. Fouzi*

15:40

**END OF SESSION**

## 29<sup>th</sup> July 2022 (Session II: 09:30–12:30)

Panel Members      **Mr. J.A. Athula** (Uva Wellassa University of Sri Lanka )  
 Dr. B.V.A.S.M. Bambaranda (Uva Wellassa University of Sri Lanka)  
 Ms. K.P. Guruge (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
<b>347</b> 09:30-09:50	<b>Impact of Covid-19 pandemic on ornamental fish industry in Gampaha District, Sri Lanka</b> <i>W.A.M.B. Weerasuriya, K.R.T.R. Gunarathne, W.A.S. Lakshan, K.M.N. Madusanka, M.S. Artharpaul, P.M.S. Damayanthi, M.K.T.W. Jinadasa, B.A.S. Kumari, O.G.V.P. Ranaweera, M.A.B.K. Wimalasiri, M. Naveenan and C.N. Walpita</i>
<b>376</b> 09:50-10:10	<b>A review of the present status of culture-based system of <i>Macrobrachium rosenbergii</i> (giant freshwater prawn) in Udawalawa and Samanala Reservoirs, Sri Lanka</b> <i>K.K.C.K. Karunanayaka, P.C.B. Dias, I.U. Wickramaratne and J.K.H. Sampath</i>
<b>399</b> 10:10-10:30	<b>Current status of seaweed farming in Northern Province of Sri Lanka and development of seaweed Database</b> <i>U. Kabishanthan, P.C.B. Dias and B.V.A.S.M. Bambaranda</i>
<b>422</b> 10:30-10:50	<b>Effects of stocking density and feeding frequency on growth performances of guppy fish (<i>Poecilia reticulata</i>)</b> <i>R.M.S.M. Rathnayaka, A.C.W.W.M.C.L.K. Coswatte, N.P.P. Liyanage, A.R. Mudalige and E.S.R. Fernando</i>
<b>427</b> 10:50-11:10	<b>Defining a protocol for breeding and rearing crystal shrimp (<i>Caridina cantonensis</i>) using treated municipal water and Mineralized Reverse Osmosis (MRO) water</b> <i>K.S.C.P. Suraweera, E.S.R. Fernando, A.R. Mudalige, A.C.W.W.M.C.L.K. Coswatte and N.P.P. Liyanage</i>
11:10-11:30	<b>SESSION BREAK</b>

479

11:30-11:50

**Optimization of stocking density of red balloon platy (*Xiphophorus maculatus*) in aquaponics system with *Echinodorus uruguayensis***

W.L.T.D. Rathnayake, N.P.P. Liyanage, B.V.A.S.M. Bambaranda and P.C.B. Dias

510

11:50-12:10

**Identification of general conditions to form Biofloc using fisheries sector by-products**

B.P. Pathirage, D.D.T.D. Ruwanpura, N.P.P. Liyanage and W.A.R.K. Senaarachchi

514

12:10-12:30

**Growth performance of GIFT fry fed with fish waste-based Biofloc**

D.D.T.D. Ruwanpura, B.P. Pathirage, N.P.P. Liyanage and W.A.R.K. Senaarachchi

12:30

**END OF SESSION**

**BUSINESS MANAGEMENT**

**28<sup>th</sup> July 2022 (Session I: 11:00–17:00)**

Panel Members: **Dr. N.P.R. Deyshappriya** (Uva Wellassa University of Sri Lanka)  
Mr. C.J.P. Kulathilaka (Uva Wellassa University of Sri Lanka)  
Dr. H.L.N. Wasantha (Uva Wellassa University of Sri Lanka)

<b>Paper ID</b>	<b>Title of Abstract</b>
<b>Time</b>	<b>Names of Authors</b>
<b>138</b> 11:00-11:20	<b>Assessing the impact of E-Word of Mouth (E-WOM) on consumers' purchase intention for cosmetic products with the mediation role of brand image: Special reference to Facebook users</b> <i>L.V.M.G. Vithana, P.I.N. Fernando and R.M.C.S. Rathnayaka</i>
<b>139</b> 11:20-11:40	<b>The impact of social media marketing activities on brand equity with the mediation through brand trust (reference to the banking sector in Sri Lanka)</b> <i>B.G.K.U. Karunasekara, P.I.N. Fernando and R.M.C.S. Rathnayaka</i>
<b>143</b> 11:40-12:00	<b>The impact of online visual merchandising on buying behavior of Facebook users in Sri Lanka (with special reference to mobile phone industry)</b> <i>A.G.S.P. Warnakulasooriya and N.C. Jayasinghe</i>
<b>160</b> 12:00-12:20	<b>Assessing the impact of luxury handicraft brand experience on customer engagement: With mediating effect of website quality</b> <i>M.P.D. Dahanayaka, P.I.N. Fernando and T.G.A.H.C. Amarawansa</i>
<b>275</b> 12:20-12:40	<b>Impact of customer lifetime value, emotional confidence, and brand loyalty on customer retention; special reference to milk powder industry in Colombo district</b> <i>D.A.O. Niroma, K.M.M.C.B. Kulathunga and U.D.I.C. Udawaththa</i>
<b>434</b> 12:40-13:00	<b>Strategic responses of social enterprises to Covid 19 pandemic situation</b> <i>D.A.O.N. Dolewaththa, K. Jayawardhana and K.J.T. Perera</i>
13:00-14:00	<b>SESSION BREAK</b>

Panel Members: **Dr. L.N.A.C. Jayawardena** (University of Peradeniya)  
**Dr. A.A.K.K. Jayawardhana** (Uva Wellassa University of Sri Lanka)  
**Dr. J. Siyambalapitiya** (Uva Wellassa University of Sri Lanka)

- 
- 140**  
14:00-14:20  
**The impact of Facebook marketing on the purchase intention of generation Z customers (with special reference to fashion brands)**  
*D.B.P. Wanaguru, N.C. Jayasinghe and D.G.U.N. Ulugethenna*
- 208**  
14:20-14:40  
**Relationship between organizational stressors and organizational performance of senior level managers in multipurpose co-operative societies: Limited to Central Province in Sri Lanka**  
*N.B. Hapuarachi and D.N. Dissanayake*
- 227**  
14:40-15:00  
**Investigating the adoption of digital banking practices in the age of Covid-19 (insights from MSMEs in Western Province, Sri Lanka)**  
*H.S.A. Somasiri, K.M.M.C.B. Kulathunga and K.J.T. Perera*
- 228**  
15:00-15:20  
**The Impact of social media marketing on brand equity creation (with special reference to fashion wears retail industry in Northern Province)**  
*J. Rajeeperan, N.C. Jayasinghe and P.G.M.S.K. Gamage*
- 254**  
15:20-15:40  
**The impact of emotional intelligence, work-life balance & self-efficacy on workplace behavior; Among working women in public banking sector (reference to the Central Province)**  
*T.M.H.D.K. Ilangarathna, K.M.M.C.B. Kulathunga and U.D.I.C. Udawaththa*
- 15:40-16:00  
**SESSION BREAK**
- 257**  
16:00-16:20  
**The impact of celebgram endorsement on consumer purchasing behavior of women clothing brands in Sri Lanka**  
*J.B.S.H.V. Dias, N.C. Jayasinghe and R.M.C.S. Rathnayake*
- 300**  
16:20-16:40  
**A study on the impact of cash flow management on financial sustainability of SMEs (with special reference to manufacturing sector SMEs in Western Province Sri Lanka)**  
*H.K.D.W.M.I.M. Hapuhinna, Y.M.C. Gunarathne and P.G.M.S.K. Gamage*
- 375**  
16:40-17:00  
**Assessing the impact of perceived service quality of retail websites and consumer purchase intention with the mediating effect of consumer trust**  
*P.M.I.E. Amarasekara, P.I.N. Fernando and C.J.P. Kulathilaka*

**29<sup>th</sup> July 2022 (Session II: 09:30 – 13:10)**

Panel Members: **Prof. R.H. Kuruppuge** (University of Peradeniya)  
**Prof. P.I.N. Fernando** (Uva Wellassa University of Sri Lanka)  
**Dr. N.C. Jayasinghe** (Uva Wellassa University of Sri Lanka)

<b>Paper ID</b>	<b>Title of Abstract</b>
<b>Time</b>	<b>Names of Authors</b>
<b>142</b> 09:30-09:50	<b>The impact of social media on business transformation of SMEs in Sri Lanka: The role of organizational agility as the mediator</b> <i>W.A.A. Sewwandi, Y.M.C. Gunarathna and T.G.A.H.C. Amarawansa</i>
<b>152</b> 09:50-10:10	<b>The impact of narrative transportation in video storytelling advertising on brand loyalty: The mediating role of brand experience and brand love (special reference to food and beverage sector in Sri Lanka)</b> <i>M.M. Wimalasena, P.I.N. Fernando and C.J.P. Kulathilake</i>
<b>179</b> 10:10-10:30	<b>The impact of organizational commitment on job satisfaction with virtual work during Covid-19 pandemic (special reference to government school teachers in Kandy area)</b> <i>P.T.G.Y.K. Jayathilaka, J. Siyambalapitiya and R.M.C.S. Ratnayake</i>
<b>181</b> 10:30-10:50	<b>The impact of occupational safety and health on job performance in maritime industry in Sri Lanka: Evidence from operational level dock workers in port of Colombo</b> <i>L.A. Ellepola, J. Siyambalapitiya and P. Wachissara</i>
<b>262</b> 10:50-11:10	<b>The impact of green human resource management practices on employee retention in apparel industry: The role of work engagement as a mediator</b> <i>J.V.G.R. Prabodhini and J. Siyambalapitiya</i>
11:10-11:30	<b>SESSION BREAK</b>
<b>280</b> 11:30-11:50	<b>Import substitution industrialization and economic growth: Evidence from South Asian region</b> <i>P.G.G. Lanka and P.P. Lalanie</i>
<b>323</b> 11:50-12:10	<b>Analyzing the impact of energy prices on economic growth (evidence from OECD countries)</b> <i>I.A.D.D.W. Rukshan and N.P.R. Deyshappriya</i>

**426**

12:10-12:30

**Business environmental pressure and business model innovation in SMEs during the pandemic situation in Sri Lanka**

*M.W.R. Lakmali, K. Jayawardhana and T.G.A.H.C. Amarawansa*

**436**

12:30-12:50

**Value co-creation orientation and social innovation within social enterprises: Moderating effect of environmental dynamism**

*P.R.T.P. Paranagama, K. Jayawardhana and P.I.N. Fernando*

**442**

12:50-13:10

**Impact of dynamic capabilities on SME innovation (special reference to Colombo District)**

*D.L.D.B. Kawshalya, K. Jayawardhana and J. Siyambalapitiya*

13:10

**END OF SESSION**

## COMPUTING & INFORMATICS

**28<sup>th</sup> July 2022 (Session I: 11:00–17:00)**

Panel Members: **Dr. E.M.U.W.J.B. Ekanayake** (Uva Wellassa University of Sri Lanka)  
**Ms. S.D.H.S. Wickramaratne** (Uva Wellassa University of Sri Lanka)  
**Dr. K.P.P.S. Pathirana** (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>036</b> 11:00-11:20	<b>Studying automatic document classification for different writing styles using ensemble learning approach</b> <i>K.M.G.S. Karunaratna and R.A.H.M. Rupasingha</i>
<b>066</b> 11:20-11:40	<b>Sentiment analysis of Twitter data: Measuring the positive or negative perception toward E-Learning during the Covid-19 pandemic</b> <i>K.I. Senadhira and R.A.H.M. Rupasingha</i>
<b>069</b> 11:40-12:00	<b>Machine learning algorithms to identify the level of human stress based on sleeping habits</b> <i>J. G. Jayawickrama and R.A.H.M. Rupasingha</i>
<b>071</b> 12:00-12:20	<b>Prediction of employee satisfaction on online working after the Covid-19 pandemic - A case study on Sri Lankan employees</b> <i>S.A.D.D. Abesiri and R.A.H.M. Rupasingha</i>
<b>129</b> 12:20-12:40	<b>Factors influencing the adoption of online payment procedures within small and medium-sized enterprises (SME) in the District of Badulla Sri Lanka</b> <i>W.N. Sellahewa and T.D. Samarasinghe</i>
<b>131</b> 12:40-13:00	<b>Hyperbolic localization with triangulation for locating unauthorized activities in the forest</b> <i>S.S.B. De Silva, P.K.D. Jayanga, K.H.U.D.M.H. Uluwaththa, M. Ramashini and L.C. De Silva</i>
13:00-14:00	<b>SESSION BREAK</b>



- 178**  
14:00-14:20  
**Mobile application for self-screening of the Covid-19 infection based on the breathing sounds using machine learning approach**  
*P.J.L.M. De Silva, S.M.P.D. Thennakoon, S.L. Fernando, M. Ramashini and E. Abas*
- 183**  
14:20-14:40  
**Remote monitoring of domesticated pets using IOT and machine learning techniques: A case study of common domestic dog species in Sri Lanka**  
*L.S.I. Senevirathne, M.B. Premasiri, H.M.A.S. Herath and A. Rathnayake*
- 199**  
14:40-15:00  
**Exploring and analyzing the data visualization literacy in Sri Lanka using Covid-19 and Sri Lankan tourism as a supportive use case**  
*D.D.K.R.W. Dandeniya and B.C.T. Wickramasinghe*
- 235**  
15:00-15:20  
**Descriptive analysis and data visualization on Agile-ITIL integration on Business as Usual (BAU) activities in IT industry**  
*P.A.A. Illoshini and W.M.J.I. Wijayanayake*
- 334**  
15:20-15:40  
**Human behavior identification system for elderly care**  
*W.P.S.M. Weerasinghe, Y.K.D.T. Madara, W.L.B.H. Nanayakkara and N.E.C. Jayasekara*
- 15:40-16:00  
**SESSION BREAK**
- 357**  
16:00-16:20  
**Consideration of sleeping habits to detect the stress in humans using XGBoost**  
*K. Mauran, P. Premisha, S. Prasanth, K. Banujan, B.T.G.S. Kumara*
- 358**  
16:20-16:40  
**Spot struggling students in online learning using machine learning approach**  
*J.P.S.T.J. Kumari, A.H.S. Kanchana, W.H.T. Uddamika, H.M.S.N. Ariyadasa and C. Jayasekara*
- 360**  
16:40-17:00  
**Machine learning based approach for software requirement classification**  
*N. Ravikumar, P.M.A.K. Wijeratne, A. Saleem, K. Banujan and B.T.G.S. Kumara*
- 17:00  
**END OF SESSION**

## 29<sup>th</sup> July 2022 (Session II: 09:30–12:10)

Panel Members: **Prof. R.M.K.T. Rathnayaka** (Sabaragamuwa University of Sri Lanka)  
 Prof. B.T.G.S. Kumara (Sabaragamuwa University of Sri Lanka)  
 Dr. M. Ramashini (Uva Wellassa University of Sri Lanka)  
 Mr. W.A.W.U. Wickramaarachchi (Rajarata University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
<b>106</b> 09:30-09:50	<b>Vehicle recommendation system based on required vehicle features of the buyers in the Sri Lankan context</b> <i>V.N. Wijerathna, L.G. Chathuranga, K.M.A.D. Bandara, N.C.E. Jayasekara and T.D.K. Marambe</i>
<b>145</b> 09:50-10:10	<b>A framework to analyze student's satisfaction in real-time and modify teaching methods in online education</b> <i>K.S.N. Athukorala, A.G.S. Piyumika and S.A.D.N.U. Suraweera</i>
<b>173</b> 10:10-10:30	<b>Web-based application for gold price prediction with machine learning techniques</b> <i>W.D.S.K. Dharmasiri, S.J.J. Srinayaka and M.S.S Razeeth</i>
<b>188</b> 10:30-10:50	<b>Automatically generate MCQs with end-to-end answers using BERT and NLTK technologies</b> <i>K.K.C.W. Kumari, B.G.D.S. Nirosha, J.B. Ekanayake and P. Rajapaksha</i>
<b>195</b> 10:50-11:10	<b>Topics detection Tweets related to Covid-19 vaccinations: A transfer learning approach</b> <i>H.M. Baddegama, W.K.H.I. Biseka, H.I.S. Dharmasena, J.B. Ekanayake and P. Rajapaksha</i>
11:10-11:30	<b>SESSION BREAK</b>

**197**

11:30-11:50

## **Detecting audience excitement and boredom using facial images in an online meeting**

S.D.T. Kaveenda, W.D.N. Nirmal, M.T.N.T. Dilshani and A.M.B. Ratnayake

**279**

11:50-12:10

## **Ontology based legal support system on domestic violence in Sri Lanka**

D.M.K.L. Dissanayake, M.E.N. Shantha and S.D.H.S. Wickramaratne

12:10

**END OF SESSION**

## ENGINEERING & TECHNOLOGY

**28<sup>th</sup> July 2022 (Session I: 11:00–16:00)**

Panel Members: **Dr. R.M.T.C.B. Ekanayake** (Uva Wellassa University of Sri Lanka)  
 Dr. H.M.C.M. Herath (Uva Wellassa University of Sri Lanka)  
 Dr. A.C. Vidanapathirana (University of Peradeniya)  
 Mr. A.R.P.C.C.J. Amarasinghe (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>091</b>	<b>Self-activating soap and water battery imposed dispenser</b>
11:00-11:20	<i>M.M.W.M. Munasinghe and W.E.P.S. Ediriweera</i>
<b>102</b>	<b>Automatic billing system for Sri Lankan pastry shop</b>
11:20-11:40	<i>D.G. H. Jayawardhana, T. Thevathayarajh, R.M.T.C.B. Ekanayake and D.D.B. Senanayake</i>
<b>103</b>	<b>Design a plant irrigation water sprinkler robot</b>
11:40-12:00	<i>M.L.C. Ishara, G.L.H.D. Madurangi, U.U. Sanjeevani and L.K. Ekanayake</i>
<b>109</b>	<b>A study on distributed and centralized power factor correction: A case study</b>
12:00-12:20	<i>H. I. D. Pubudunee and W.E.P.S. Ediriweera</i>
<b>110</b>	<b>Identification of electrical appliances via analyzing the harmonics in voltage and current waveforms</b>
12:20-12:40	<i>T. Kugaranan, M.H.M.S. Kariapper and I.B.M.T.P. Ilangasinghe</i>
<b>116</b>	<b>An investigation of energy consumption and energy-saving potentials of an industrial load</b>
12:40-13:00	<i>R.A.M. Kalhari, H.E. Bandara and W.E.P.S. Ediriweera</i>
13:00-14:00	<b>SESSION BREAK</b>

- 133** **Six-axis mini industrial robot arm for small scale industry**  
14:00-14:20 *W.P.S. Dilshan, T.S.N. Dalamadagedara, A.M.P. Madushanka, S.H.H.C. Rathnayake, U.U. Sanjeewani and P.G.S.R. Wijetunga*
- 168** **Design and development of an automatic irrigation system embedded with water leakage detection for green roofing**  
14:20-14:40 *M.Visnujaan, H.E. Bandara, H.M.A.J. Herath and D.H.B.R. Dassanayake*
- 172** **Design and develop an IoT-based street light Maintainers monitoring system**  
14:40-15:00 *R.G. Hettiarachchi, H.E. Bandara and H.M.A.J. Herath*
- 211** **Motorbike assistance tool using image processing technique**  
15:00-15:20 *D.M.G.P. Alwis, T. Thevathayarajh, T. Ekanayake and D. Senanayake*
- 218** **Designing of automated roof gutter cleaner for houses in urban area**  
15:20-15:40 *C. Sajithra, K.R.H. Ahamed, S.A. Sujail and Y.N.S. Wijewardana*
- 15:40-16:00 **SESSION BREAK**
- 281** **Evolution review of the soft robotic hand rehabilitation exoskeleton**  
16:00-16:20 *G.J.K.I.U. Jayawardhana, and R.M.T.C.B. Ekanayake*
- 283** **Implementation of combined cooling heating and power (CCHP) system at Biyagama export processing zone in Sri Lanka: A case study**  
16:20-16:40 *Dilini S. Jayathilaka and A.C. Vidanapathirana*
- 318** **Remote monitoring and controlling of an automobile system using NodeMCU**  
16:40-17:00 *D.M.K.C. Dissanayaka, A.C. Vidanapathirana and T. Thevathayarajh*
- 17:00 **END OF SESSION**

## 29<sup>th</sup> July 2022 (Session II: 09:30 – 12:50)

Panel Members: **Dr. G.W.R. Keerthiwansa** (Uva Wellassa University of Sri Lanka)  
**Dr. R.M.T.C.B. Ekanayake** (Uva Wellassa University of Sri Lanka)  
**Dr. A.C. Vidanapathirana** (University of Peradeniya)  
**Mr. A.R.P.C.C.J. Amarasinghe** (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>325</b>	<b>Solid waste power plant for a rural area</b>
09:30-09:50	<u>K.S. Kumara, H.M.S.M. Herath and W.E.P.S. Ediriweera</u>
<b>383</b>	<b>Image processing based automated fabric label placing system for textile and garment industry</b>
09:50-10:10	<u>S.M.P.H. Premathilake, W.A.T.S. Wijesooriya, U.D.A.P. Karunaratna, P.M. Dahanayake, S.D.R. Lakmal and H.G.C.R. Laksiri</u>
<b>384</b>	<b>Design and development of structural health monitoring system to alert building collapses at the early stage of the damage</b>
10:10-10:30	<u>W.M.U.R. Samaranayake, K.D.S. Madhusanka, G.D.C. Nuwanmali, H.M.C.M. Herath and U.M.N. Jayawickrema</u>
<b>389</b>	<b>Smart house control kit</b>
10:30-10:50	<u>S.N.B. Alawaththegama, A.G.R.M.L.S. Ranaweera, K.D.M.A.P. Bandara, A.S.N. Alankara, S.D.R. Lakmal and H.G.C.R. Laksiri</u>
<b>400</b>	<b>Development of an IoT based automated colony counter</b>
10:50-11:10	<u>W.P.A.C. Sampath, T. Thevathayarajh, M. Prematilake and T. Ekanayake</u>
11:10-11:30	<b>SESSION BREAK</b>
<b>407</b>	<b>Recognition of Sinhala machine-printed text for postal address interpretation and postal automation</b>
11:30-11:50	<u>A.M.P.R.B. Arawa, T. Thevathayarajh, Y. Mehendran and D.B.B. Senanayake</u>
<b>420</b>	<b>Design and development of mobile solar dryer for food drying</b>
11:50-12:10	<u>B.S.S. Udukumbura, W.M. Chandrasiri, S.L. Premasiri and G.W.R. Keerthiwansa</u>

**429**

12:10-12:30

## **Development of wind turbine system for electric and hybrid cart**

S.A.V. Gayashan, A.C. Vidanapathirana, R.M.T.C.B. Ekanayake and T. Thevathayarajh

**488**

12:30-12:50

## **Design of micro-scale wind turbine for low-speed applications**

W.P.J.M. Warnakula, A.C. Vidanapathirana, R.M.T.C.B. Ekanayake and S.S.D.D.B. Senanayake

12:50

**END OF SESSION**

## ENVIRONMENTAL SCIENCES

28<sup>th</sup> July 2022 (Session I: 11:00–15:20)

Panel Members: **Prof. E.P.S.K. Ediriweera** (Uva Wellassa University of Sri Lanka)  
 Prof. N.N. Wijayawardene (Qujing Normal University, China)  
 Dr. K.D.B. Ukuwela (Rajarata University of Sri Lanka)  
 Dr. B.V.A.S.M. Bambaranda (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>193</b> 11:00-11:20	<b>How do morphological adaptations comfort the Guppy's (<i>Poecilia reticulata</i> Peter 1859) survive?</b> <u>R.G.D.R. Jayawickrama</u>
<b>202</b> 11:20-11:40	<b>Microplastics in cosmetics and personal care products: First study from Sri Lanka</b> <u>S.G. Gamage, M.G.Y.L. Mahagamage and H.K.A.E. Prasadika</u>
<b>229</b> 11:40-12:00	<b>Public perceptions of the use of native plants in landscaping</b> <u>A.D.M.A.K. Wijetunga, K. Yakandawala, N.W.B.A.L. Udayanga and L.M.M. Ranasinghe</u>
<b>248</b> 12:00-12:20	<b>Optimization of bacteria consortium to reduce COD in landfill leachate: Step toward a green economy</b> <u>P.A.K.C. Wijerathna, S.F. Idroos and P.M. Manage</u>
<b>319</b> 12:20-12:40	<b>Structural complexity of tropical seaweeds as a determinant factor for macrofauna abundance</b> <u>E.M.L.R. Ekanayake and M.P. Kumara</u>
<b>330</b> 12:40-13:00	<b>Purification, characterization, and <i>in vitro</i> photoprotective potential of Melanin-like pigment isolated from <i>Hypoxylon</i> spp.</b> <u>R.N.B.W.M.K.E. Weerasinghe, P. Perera, R.N. Attanayake, C.S.K. Rajapakse and A.P. Halmillawewa</u>
13:00-14:00	<b>SESSION BREAK</b>



**351**

14:00-14:20

**Soil carbon mineralization in Kanneliya and Pitadeniya tropical rainforests in Sri Lanka**

W.A.B.R Ariyathilake, H.M.S.K. Herath, H.M.K.S. Bandara, R. Chandrajith, W.A.J.M. De Costa

**410**

14:20-14:40

**Possibility of using morphometric features of phytoliths of Zingiberaceae species in the research arena**

K.G.T.K. Wijesinghe and G.A.D. Perera

**458**

14:40-15:00

**Determination of toxic effect of fluoride ions using Zebrafish (*Danio rerio*) embryo toxicity testing**

D.S.P.P.G. De Silva, K.T.Y. Mahima, C.P. Suduwella, W.C. Hiroshini, K. De Zoysa and D.P.N. De Silva

**491**

15:00-15:20

**Diversity and abundance of dragonflies and damselflies in Rambukpotha Oya Tributary, Badulla, Sri Lanka**

A.G.M. Madhusankha, A.P. Abeygunawardana, R.M.G.N. Rajapaksha and N.P.P. Liyanage

15:20

**END OF SESSION**

29<sup>th</sup> July 2022 (Session II: 09:30–13:50)

Panel Members: **Prof. Thushara Chaminda** (University of Ruhuna)  
 Dr. A.A.D. Amarathunga (National Aquatic Resource Research & Development Agency)  
 Dr. C. Ellawala (University of Ruhuna)

Paper ID	Title of Abstract
Time	Names of Authors
<b>107</b> 09:30-09:50	<b>Public perception on controlling plastic pollution: A case study in Modara, Sri Lanka</b> <i>E.A.S.M.R. Edirisinghe, H.M.K.M.K. Herath, Y.R.G.T. Premawardana and <u>A. Suresh</u></i>
<b>177</b> 09:50-10:10	<b>Microplastic pollution in Beeralla stream (a tributary of Kirindi Oya) in Badulla District, Sri Lanka</b> <i>R.M.A. Dilini, H.N.S. Wijethunga, K.P.U.T. Egodaunya, A.P. Abeygunawardana, N.P.P. Liyanage, <u>G.G.N. Thushari</u> and J. Manatunge</i>
<b>205</b> 10:10-10:30	<b>Rainfall trends in Northern and Eastern coastal belt of Sri Lanka from 1980 to 2020</b> <i><u>S.M. Wijenayake</u>, A.D. Ampitiyawatta, K.C. Kaushalya and E.P.R.H.H.W. Nilmalgoda</i>
<b>232</b> 10:30-10:50	<b>Application of drone (UAV) technology for mapping seagrass beds compared to high-resolution Sentinel-2 satellite images</b> <i><u>W.G.I.T. Gunathilaka</u>, E.P.D.N. Thilakarathna, A.P. Abeygunawardana, T.W.S. Warnasuriya, K.P.U.T. Egodaunya, K.U.D.N. Hansani, W.M.P.U. Weerasingha and B.D.O. Perera</i>
<b>236</b> 10:50-11:10	<b>Microplastic pollution of coral reef ecosystems in the Eastern Coast of Sri Lanka</b> <i><u>K.U.D.N. Hansani</u>, E.P.D.N. Thilakarathne, A.P. Abeygunawardana, K.P.U.T. Egodaunya, B.G.D.O. Perera, W.G.I.T. Gunathilaka and W.M.P.U. Weerasingha</i>
10:10-11:30	<b>SESSION BREAK</b>
<b>240</b> 11:30-11:50	<b>Long-term variations of sea surface temperature in the Exclusive Economic Zone (EEZ) and the territorial sea of Sri Lanka from 2003 to 2021</b> <i><u>W.M.P.U. Weerasingha</u>, E.P.D.N. Thilakarathne, A.P. Abeygunawardana, T.W.S. Warnasuriya, G.A.J. Sandamali, W.G.I.T. Gunathilaka, K.U.D.N. Hansani and B.G.D.O. Perera</i>

- 278**  
11:50-12:10  
**Water quality and microbial contamination status of ground and surface water in high prevalence chronic kidney disease of uncertain aetiology (CKDu) areas in Anuradhapura District, Sri Lanka**  
*P.A.B.P. Abeyrathne, S.D.M. Chinthaka, G.Y. Liyanage and P.M. Manage*
- 315**  
12:10-12:30  
**Microbial analysis of well water contamination in Nallur area of Jaffna District, Sri Lanka**  
*A. Briyangari*
- 373**  
12:30-12:50  
**Microplastic pollution of surface waters in the Indian Ocean: A Meta-analysis and ecological risk assessment**  
*N.P.P.S. Nugawela, A.P. Abeygunawardena, G. Abhiram and A.S. Mahaliyana*
- 392**  
12:50-13:10  
**Screening for microplastics in surface water and sediment in Uma Oya, around Welimada Area**  
*M.M.A. Kumari, A.P. Abeygunawardena, G.G.N. Thushari and E.P.D.N. Thilakarathne*
- 437**  
13:10-13:30  
**Green synthesis of iron nanoparticles using aqueous extraction of Kata Kela (*Bridelia retusa*) leaves**  
*K.G.R. Samarawickrama, U.G.S. Wijayapala and C.A.N. Fernando*
- 477**  
13:30-13:50  
**Contamination status of selected heavy metals in Kalu ganga river mouth and nearby coastal waters, Sri Lanka: A baseline study**  
*B.D.I.M. Batugedara and S.A.M.A.I.K. Senanayake*
- 13:50  
**END OF SESSION**

## FOOD SCIENCE & BIOPROCESSES

28<sup>th</sup> July 2022 (Session I: 11:00–17:00)

Panel Members: **Dr. W.L.I. Wijesekara** (University of Sri Jayewardenepura)  
**Dr. T.C. Kananke** (Sabaragamuwa University of Sri Lanka)  
**Dr. A.P. Henegamage** (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>029</b>	<b>Development of ovalbumin-based beverage</b>
11:00-11:20	<i>M.H.U. Maggonage, U.D.P. Manjula, E.D.N.S. Abeyrathne and D.U. Ahn</i>
<b>031</b>	<b>Associated factors of anaemia among pregnant women attending antenatal care clinic at Kattankudy D.S. Division, Batticaloa District, Sri Lanka</b>
11:20-11:40	<i>M.R. Roshana and T. Mahendran</i>
<b>039</b>	<b>Manufacturing of ash plantains, carrots, mushrooms, chickpea flour and oats incorporated sausage analogues</b>
11:40-12:00	<i>H.M.J.W. Wathsala, S.M.C. Himali and D.C.K. Illeperuma</i>
<b>041</b>	<b>Effect of milk protein genetic variants on milk coagulation properties of indigenous and exotic cattle breeds/types in Sri Lanka</b>
12:00-12:20	<i>W.V.V.R. Weerasingha, C.S. Ranadheera, P.H.P. Prasanna, G.L.L.P. Silva and J.K. Vidanarachchi</i>
<b>075</b>	<b>SeamDock reveals the potential antiviral activity of luteolin against Senecavirus A 3C Protease</b>
12:20-12:40	<i>L. N. Ranathunga, P. Manjula, P.S. Dahanayake and M. Esakkimuthu</i>
<b>080</b>	<b>Isoginkgetin binding to 3C protease demonstrates antiviral potentiality against Senecavirus A infection</b>
12:40-13:00	<i>L. N. Ranathunga, P. Manjula, P.S. Dahanayake and H. Keerthirathne</i>
13:00-14:00	<b>SESSION BREAK</b>

- 114**  
14:00-14:20 **Effect of chilling temperature of separated raw cream on free fatty acids content of butter in MILCO (Pvt) Ltd., Ambewela**  
*W.K.K. Madhushani, K.N. Wijayasekara and K.W.D.M.J.C. Wickramasinghe*
- 128**  
14:20-14:40 **Utilization of lycopene as a natural antioxidant and a colorant in butter**  
*D.M.K.S. Dissanayake, S.N.S.L.H.P. Neelawala and D.C. Mudannayake*
- 154**  
14:40-15:00 **Evaluation of bioactive properties of herbal tea developed using pink and white colour Nelumbo nucifera Petals**  
*A.D.S.M. Dharmasena, B.V.A.S.M. Bambaranda and D.C. Mudannayake*
- 239**  
15:00-15:20 **Impact of inulin and guar gum on the physicochemical, probiotic and sensory properties of frozen yoghurt**  
*R.M.C.R. Rajapaksha, D.M.A. Gunerathne, M.P. Edirisinghe and D.U. Rajawardana*
- 272**  
15:20-15:40 **Study on authentication of palmyrah jaggery using chemical tests**  
*T. Inthuja, T. Glanista, G.A.A.R. Perera, T.T.D. Dharmarathna and S. Srivijeindran*
- 15:40-16:00 **SESSION BREAK**
- 450**  
16:00-16:20 **Effect of gamma irradiation on physicochemical and microbiological properties of curry leaves (*Murraya koenigii*) powder**  
*M.D. Withanage, A.A.G. Madurakanthi, R.D.R. Ranasinghe and W.A.J.P. Wijesinghe*
- 452**  
16:20-16:40 **Extraction of natural food colourant from Canistel fruit (*Pouteria campechiana*) and its possible food applications**  
*R.A.D.A. Ranasinghe, S.M.A.C.U. Senarathne and W.A.J.P. Wijesinghe*
- 456**  
16:40-17:00 **Development of tomato sauce incorporating cocoyam (*Xanthosoma sagittifolium* (L.) Schott) flour as a natural thickening agent and evaluation of its quality attributes**  
*K.K. Gaveshika and M.P.M. Arachchige*
- 17:00 **END OF SESSION**

29<sup>th</sup> July 2022 (Session II: 09:30–13:30)

Panel Members: **Prof. W.A.J.P. Wijesinghe** (Uva Wellassa University of Sri Lanka)  
Dr. S. Jayathilake (Wayamba University of Sri Lanka)  
Dr. G.L.N.P. Sumanarathna (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
<b>175</b> 09:30-09:50	<b>The public perspective of natural derived remedies for diseases: An online survey in Sri Lanka</b> <i>I.B.N.S. Sewwandi, M.M.M. Arachchi and P.B. Ratnaweera</i>
<b>187</b> 09:50-10:10	<b>Implementation of a Hazard Analysis and Critical Control Point (HACCP) plan for yoghurt production line at MILCO (Pvt) Ltd, Polonnaruwa</b> <i>W.M.M.S. Wanninayake, D.C. Mudannayake, K.N. Wijayasekara and W.A.S.B. Aththanayake</i>
<b>212</b> 10:10-10:30	<b>Low-fat yoghurt supplemented with novel probiotic <i>Lactobacillus plantarum</i> 200655 attenuates oxidative stress and enhances antioxidant activity</b> <i>K.M.G.M.M. Kariyawasam, N.K. Lee, H.D. Paik and A.U. Rathnayake</i>
<b>303</b> 10:30-10:50	<b>Screening of phytochemicals and potential antibacterial activity of medicinally valued plant; <i>Croton laccifer</i> L.</b> <i>K.M.D.N. Jayawardhana, K.B. Wijesekara and N.G.D.N. Nikagolla</i>
<b>361</b> 10:50-11:10	<b>Physiochemical properties and oxidative stability of freeze dried microencapsulated fish oil combined with tapioca, maltodextrin and milk protein concentrate)</b> <i>D.S. Shanuke, R.A.U.J. Marapana, S. Hettiarachi and E.M.R.K.B. Edirisinghe</i>
11:10-11:30	<b>SESSION BREAK</b>
<b>433</b> 11:30-11:50	<b>Evaluation of quality parameters on seaweed powder (<i>Kappaphycus alvarezii</i>) incorporated ice cream</b> <i>T.H.K.U. Ananda, B.V.A.S.M. Bambaranda and D.C. Mudannayake</i>
<b>445</b> 11:50-12:10	<b>Development of pineapple incorporated yellowfin tuna (<i>Thunnus albacares</i>) jerky</b> <i>A.M.T.S.B. Abeyasinghe, E.D.N.S. Abeyrathne, M.G.T.R. Kariyawasam and D.D. Jayasena</i>

**455**

12:10-12:30

**Oxidative stability of mechanically separated chicken meat incorporated with lime peel powder during frozen storage**

U.H.G. Madushan, S.R. Nawarathne, E.C.N. Rathnapala, S.P. Macelline, D.B.O. Malaweera, J.K. Dissanayake and D.D. Jayasena

**461**

12:30-12:50

**Physicochemical characteristics of crude collagen extracted from broiler chicken feet using different levels of citric acid monohydrate**

H.R. Sanjeevani, P. Manjula, S.R. Nawarathne, W. Jeewanthi, K. Weerasingha and D.D. Jayasena

**499**

12:50-13:10

**Optimization of composition and physicochemical properties of soursop (*Annona Muricata* L.) incorporated ice cream**

S. Priyanga, D.M.I.N. Dissanayake and A.M.N.L. Abesinghe

**511**

13:10-13:30

**Effect of ultrasound pretreatment on the growth of yoghurt starter culture containing *Bifidobacterium* spp.**

S. Kuneswaran, A.M.N.L. Abesinghe, M.S. Kurukulasuriya and J.K. Vidanarachchi

13:30

**END OF SESSION**

## HOSPITALITY & TOURISM

**28<sup>th</sup> July 2022 (Session I: 11:00–17:00)**

Panel Members: **Dr. S. Munasinghe** (Sabaragamuwa University of Sri Lanka)  
 Ms. K.T.N.P. Abeywickrama (Rajarata University of Sri Lanka)  
 Ms. A.C.I.D. Karunaratne (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>009</b>	<b>Time series modeling of tourist arrivals to Sri Lanka: ARIMA approach</b>
11:00-11:20	<i>J.J.R. Wimalarathna and N. Varathan</i>
<b>034</b>	<b>Identifying potentials for experience-based cultural tourism development in Polonnaruwa, Sri Lanka</b>
11:20-11:40	<i>M.A.D.M. Ranawaka, J.P.R.C. Ranasinghe and U.G.O. Sammani</i>
<b>060</b>	<b>An analysis of user acceptance in mobile travel applications: Issues and opportunities</b>
11:40-12:00	<i>M.A.T. Dilhari and J.P.R.C. Ranasinghe</i>
<b>065</b>	<b>The potentials and challenges of promoting caravan tourism concept as a new revival of tourism industry in Sri Lanka</b>
12:00-12:20	<i>H.A.D.C. Jayalath, R.S.S.W. Arachchi and A.M.N.M. Gangananda</i>
<b>076</b>	<b>Revival of wildlife tourism operation after the pandemic: Service providers' perspective at Minneriya National Park</b>
12:20-12:40	<i>H.P.P.M. Pathiraja, A.C.I.D. Karunaratne and G.H.V. Harshani</i>
<b>078</b>	<b>Street food as a promotional tool in sustainable gastronomic tourism in Sri Lanka</b>
12:40-13:00	<i>W.M.M.G.S.G. Weerathunga, A.C.I.D. Karunaratne and U.G.O. Sammani</i>
13:00-14:00	<b>SESSION BREAK</b>



Panel Members: **Prof. J.P.R.C. Ranasinghe** (Uva Wellassa University of Sri Lanka)  
Dr. D.M.C. Dasanayake (Rajarata University of Sri Lanka of Sri Lanka)  
Ms. S.N.S.Dahanayake (Rajarata University of Sri Lanka of Sri Lanka)

- 
- 030**  
14:00-14:20  
**Does the glass ceiling effect hinder career progress of female employees? Empirical evidence from hotel industry in Sri Lanka through the lenses of gendered organizational theory**  
*R.N. Wijethunga and J.P.R.C. Ranasinghe*
- 047**  
14:20-14:40  
**Impact of green human resource management practices on environmental performance: Empirical evidence from hotels in Southern province in Sri Lanka**  
*H.D. Warnasooriya, J.P.R.C. Ranasinghe and P.G.S.S. Pattiyaedara*
- 074**  
14:40-15:00  
**Impact of artificial intelligence use in hotels on customer satisfaction (Special reference to Down South area)**  
*G.E. Jayathunge, J.P.R.C. Ranasinghe and W.M.A.H. Bandara*
- 111**  
15:00-15:20  
**Impacts of tipping on employee motivation and performance in restaurant operation in Colombo district**  
*W.D.H.N. Withanage, W.G.S.R. Wijesundara and U.G.O. Sammani*
- 238**  
15:20-15:40  
**Potentials to promote sustainable gastronomy tourism in small and medium scale restaurants in Colombo district, Sri Lanka**  
*E.C.M. Kumarasinghe and W.G.S.R. Wijesundara*
- 15:40-16:00  
**SESSION BREAK**
- 308**  
16:00-16:20  
**A study on corporate social responsibility initiatives of the event industry in Sri Lanka**  
*E.G.S. Chathurangi, A.M.D.B. Nawarathna and W.M.A.H. Bandara*
- 348**  
16:20-16:40  
**Identifying the importance of food photography on online food delivery in restaurants located in the Colombo city**  
*L.N.T. Weerasinghe, W.G.S.R. Wijesundara and A.M.N.M. Gangananda*
- 401**  
16:40-17:00  
**Harmonizing luxury and sustainability: Potential of developing luxury sustainable tourism in Sri Lanka from hoteliers' perspective**  
*K.A.S.N. Sathsarani and R.S.S.W. Arachchi*

29<sup>th</sup> July 2022 (Session II: 09:30 – 13:10)

Panel Members: **Prof. M.H.M. Aslam** (Sabaragamuwa University of Sri Lanka)  
**Prof. R.S.S.W. Arachchi** (Sabaragamuwa University of Sri Lanka)  
**Ms. W.G.S.R. Wijesundara** (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
<b>079</b> 09:30-09:50	<b>Social media usage of generation Y travelers in planning domestic tours</b> <i>K.C. Nawagamuwa, A.C.I.D. Karunarathne and H.N. Jayawardena</i>
<b>093</b> 09:50-10:10	<b>The socio-economic impacts of elephant tourism on the local community: A study of captive elephants in Sri Lanka</b> <i>H.M.U.L. Samaraweera, W.G.S.R. Wijesundara and A.M.N.M. Gangananda</i>
<b>119</b> 10:10-10:30	<b>Role of host community in promoting cultural heritage tourism in Northern Sri Lanka: Special reference to Jaffna peninsula</b> <i>K. Sriramachandran, A.M.B.D. Nawarathna and U.G.O. Sammani</i>
<b>216</b> 10:30-10:50	<b>The role of area tour guides and their impact on sustainable tourism development in Ella, Sri Lanka</b> <i>W.G.R.C.M. Jayasekara, A.M.D.B. Nawarathna and A.M.N.M. Ganganada</i>
<b>219</b> 10:50-11:10	<b>Tourism stakeholders' involvement for cultural tourism development in the ancient city of Anuradhapura</b> <i>D.M.I.S. Wijerathna, A.M.D.B. Nawarathna and U.G.O. Sammani</i>
11:10-11:30	<b>SESSION BREAK</b>
<b>246</b> 11:30-11:50	<b>A study of domestic tourists' buying behavior on railway tourism in Sri Lanka</b> <i>A.G.J.M. Dasanayaka, W.G.S.R. Wijesundara and U.G.O. Sammani</i>
<b>258</b> 11:50-12:10	<b>A study on conflicting behaviors between travel agents and tourist transport providers in Sri Lanka</b> <i>S.P.G. Sasanka and A.M.D.B. Nawarathna</i>
<b>322</b> 12:10-12:30	<b>Explore the challenges and change practices towards frontline managers in turnaround management process during Covid-19 in Sri Lanka</b> <i>A.J.T De Silva, A.M.D.B. Nawarathna and P.G.S.S. Pattiyagedara</i>

**404**

12:30-12:50

**Perceived potentials of promoting Kandy city as a traditional fashion tourism destination in Sri Lanka**

*B.M.D.M. Ilangarathne and W.G.S.R. Wijesundara*

**444**

12:50-13:10

**International tourists' perception towards rural tourism in Sri Lanka and its authenticity: Empirical evidence from Hiriwadunna**

*K.A.S.N. Sathsarani*

13:10

**END OF SESSION**

HUMANITIES, SOCIAL & LIBRARY SCIENCES

28<sup>th</sup> July 2022 (Session I: 11:00–15:20)

Panel Members: **Prof. P.H.T. Kumara** (Uva Wellassa University of Sri Lanka)  
Ven. P. Wachissara Thero (Uva Wellassa University of Sri Lanka)  
Mr. T.M.P.S.I. Tennakoon (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>061</b> 11:00-11:20	<b>Divorce as a family affair among newly married couples in Jaffna society: A content analysis</b> <i>N. Baskaran</i>
<b>141</b> 11:20-11:40	<b>Effect of stress and anxiety on decision-making in laboratory employees during COVID-19 pandemic in Sri Lanka</b> <i>A. L. Christy and S. Ravindrakumar</i>
<b>247</b> 11:40-12:00	<b>Exploring etymological roots of COVID-19 vaccine hesitancy: A study of young adults in Sri Lanka</b> <i>I.W.C.D. Purijjala, H.D.H.P. Wijerathne, D.S.A. Pathirana, K.K.S. Kumarasena and V.R. Dunuwila</i>
<b>340</b> 12:00-12:20	<b>The impact of parental separation on empathy and coping amongst young adults in Sri Lanka</b> <i>A.M.T.T. Karunawardena</i>
<b>346</b> 12:20-12:40	<b>Dostoevsky, shipman and criminal guilt: A criminological examination of guilt in neurosis and psychosis</b> <i>H.R.C.T. Senanayake</i>
<b>352</b> 12:40-13:00	<b>An exploration of trends in unpaid care work in Sri Lanka</b> <i>E.M.T.R. Ekanayake</i>
13:00-14:00	<b>SESSION BREAK</b>

**359**

14:00-14:20

**Academic achievement and home school partnership: Parents' views on home learning environment**

*M.H.A. Jayatunge and W.M.G.U. Wijesundara*

**405**

14:20-14:40

**Developed succession law related to state lands accomplish the actual inheritable land rights? A critical analysis**

*J.A.D. Jayakody*

**421**

14:40-15:00

**Socio economic problems faced during the Covid-19 pandemic by the people in Colombo district, Sri Lanka in 2021**

*P.A.D.O. Devindini, H. Pathirana, J.S. Daniels, S. Vathan, P.E.S. Fernando, V. Udayakara and D.C. Rajakulathunga*

**435**

15:00-15:20

**Strategies employed in translating religious poetry from Sinhala to English: With special reference to Yashodarawatha and its English translation**

*J.A.M. Hansani*

15:20

**END OF SESSION**

**29<sup>th</sup> July 2022 (Session II: 09:30–12:50)**

Panel Members: **Ven. P. Wachissara Thero** (Uva Wellassa University of Sri Lanka)  
Mrs. J.M.P.V.K. Jayasundara (Uva Wellassa University of Sri Lanka)  
Mr. K.M.A.S. Jayasooriya (Uva Province Library Board, Sri Lanka)

<b>Paper ID</b>	<b>Title of Abstract</b>
<b>Time</b>	<b>Names of Authors</b>
<b>010</b> 09:30-09:50	<b>A critical discourse analysis of the English usage in the Tuk-Tuk drivers' community of southern province, Sri Lanka</b> <i>N.D. Walimuni</i>
<b>013</b> 09:50-10:10	<b>The role of reflective journals to understand and develop own teaching practice</b> <i>T. Arivarasy</i>
<b>017</b> 10:10-10:30	<b>The effectiveness of using padlet as an interactive tool for practicing grammar in the second language classroom</b> <i>N.W.S.C. Wijewantha</i>
<b>023</b> 10:30-10:50	<b>A comparative analysis of the basic sentence structures with special reference to English and Chinese</b> <i>I.M. Ratnayake</i>
<b>077</b> 10:50-11:10	<b>Code switching: The functional usage in the Sri Lankan ESL classroom context</b> <i>D. Jayarathna</i>
11:10-11:30	<b>SESSION BREAK</b>
<b>084</b> 11:30-11:50	<b>Enhancing oral communication skills in virtual classrooms through cooperative learning</b> <i>L. Raguram</i>
<b>276</b> 11:50-12:10	<b>Journey of medical education at the Faculty of Health-Care Sciences, Eastern University Sri Lanka</b> <i>W.P.G. Anuradha, M.A.F. Sihnas, M. Sivanjali and T. Sathananthan</i>
<b>299</b> 12:10-12:30	<b>Enhancing ESL learning process by accommodating autonomous learning of the students at the tertiary level</b> <i>V. Rajaram</i>

**363**

12:30-12:50

**Conceptualizing inquiry-based language learning in English language teaching classrooms**

R. Alfred

12:50

**END OF SESSION**

MATERIALS & MINERAL SCIENCES

28<sup>th</sup> July 2022 (Session I: 11:00–15:20)

Panel Members: **Dr. M.A.S.R. Seneviratne** (Uva Wellassa University of Sri Lanka)  
Dr. M.A.R.L. Samaraweera (Uva Wellassa University of Sri Lanka)  
Dr. T.G.N.D. Karunaratne (Uva Wellassa University of Sri Lanka)

Paper ID	Title of Abstract
Time	Names of Authors
<b>040</b> 11:00-11:20	<b>Montmorillonite intercalated <i>Centella asiatica</i> essential oil (CEO) for controlled release of active compound/s responsible for antimicrobial activity</b> <i>A.M. Wijethunga, N.Salim and N.M. Adassooriya</i>
<b>125</b> 11:20-11:40	<b>Investigation of the possibility of <i>Neolitsea cassia</i> extract to be used as an alternative electrolyte for lithium-ion batteries</b> <i>I.K.N.C.K. Rathnayake, C.D. Kottage and K.H.I.K. Hewavitharana</i>
<b>206</b> 11:40-12:00	<b>Development of an eco-friendly packaging material from waste materials</b> <i>G.V.L. Silva, A.M.P.D.K. Alahakoon, M.D.T.P. Priyankara and G.A.A.I. Tennakoon</i>
<b>242</b> 12:00-12:20	<b>Ultrasonication mediated green synthesis of silver nanoparticles using <i>Commiphora wightii</i> gum</b> <i>C. Wickramarathne, S. Rajapakse and V.N. Seneviratne</i>
<b>294</b> 12:20-12:40	<b>Treatment of waste engine oil by solvent extraction and adsorption processes using water spinach (<i>Ipomoea aquatica</i>) and rice husk (<i>Oryza sativa</i>)</b> <i>W.S.P. Wagasenevi, R.M.H.A. Rathnayake and K.G.C. Senarathna</i>
<b>305</b> 12:40-13:00	<b>Phytogenic silver nanoparticles from pineapple peel waste extract of Murusi and Kew varieties for antioxidant activity</b> <i>A.M.S. Aththanayake, T.G. Thiripuranathar and S. Ekanayake</i>
13:00-14:00	<b>SESSION BREAK</b>



**411**

14:00-14:20

**Optimization of the process of non-edible castor oil based bio lubricant production using random surface methodology**

*P.W.M.K. Perera, W.L.P.K. Wijesinghe, F.B.Y.R. de Silva and J.A.D. Jayakody*

**464**

14:20-14:40

**Suitability of sesame oil as an alternative processing aid for aromatic oil in carbon black filled natural rubber composites**

*A.D. Wickramapala, D.G. Edirisinghe, P.K.I.L. Jayarathna, T.A.R.W.M.M.C.G. Bandara, and A.M.W.K. Senevirathna*

**465**

14:40-15:00

**Effect of ammonia preservative systems on phosphate levels in centrifuged latex and its impact on latex film properties**

*R.A.A.P. Ranawaka, A. Attanayake, T.A.R.W.M.M.C.G. Bandara and A.M.W.K. Senevirathna*

**466**

15:00-15:20

**Effects of added ammonium laureate soap on physicomechanical properties of natural rubber latex**

*L.A.A. Dilmji, A. Attanayake, G.A.A.R. Perera and E.A.L. Lochana*

15:20

**END OF SESSION**

29<sup>th</sup> July 2022 (Session II: 09:30–13:10)

Panel Members: **Dr. J.T. Cooray** (Uva Wellassa University of Sri Lanka)  
Dr. P.N.S. Kumara (Uva Wellassa University of Sri Lanka)  
Mr. M.N.P. Dushyantha (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
<b>086</b> 09:30-09:50	<b>Comparison of Murunkan clay deposit (Sri Lanka) with commercial standard</b> <i>H.C.S. Subasinghe, D.T.U. Wijewardhana, A.S. Ratnayake, W.A.D.B. Weerasingha, A.M.A.N.B. Attanayake and H.M.J.C. Pitawala</i>
<b>121</b> 09:50-10:10	<b>Development of titanium dioxide-incorporated zinc phosphate pre-coating method for corrosion prevention on mild steel</b> <i>H.M.M.C. Wijerathne and R.L. Samaraweera</i>
<b>137</b> 10:10-10:30	<b>Characterization of few-layer graphene synthesized via microwave assisted exfoliation</b> <i>R.M.D.P.K. Rathnayaka, H.M.J.C. Pitawala, K.B. Wijesekara and R.L. Samaraweera</i>
<b>203</b> 10:30-10:50	<b>Investigating calcium carbonate nanostructures as an efficient light reflective coating</b> <i>M.L.H. Anurupi and S.C. Abeyweera</i>
<b>243</b> 10:50-11:10	<b>Development of a novel lithium montmorillonite cathode suitable for rechargeable battery applications</b> <i>W.K.O.W. Goonathilake and P.W.S.K. Bandaranayake</i>
11:10-11:30	<b>SESSION BREAK</b>
<b>309</b> 11:30-11:50	<b>Establishment of guidelines for an appropriate quantity of explosives to be used for effective and safe blasting in large scaled aggregate mining in Sri Lanka</b> <i>H.K.M. Gunasekera, W.G.S. Kokila and K.D.P. Karunanayake</i>
<b>317</b> 11:50-12:10	<b>Incorporation of Guinea grass ash as a grout additive in cement-based grouting</b> <i>W.J.D Sanjeewa and H.P.T.S. Hewathilake</i>

**391**

12:10-12:30

**Development of fiber reinforced concrete paver blocks in road transportation with reduced rehabilitation**

*S.G.N.S. Ekanayake, L.K.D. Gayashan, S.W.K. Gayantha and G.A.A.I. Tennakoon*

**403**

12:30-12:50

**Efficiency of graphene-based water desalination system developed from vein graphite**

*G.D.W.J. Godawela, N.D.S. Kumanayaka, G.P.A. Dilshan and G.A.A.I. Tennakoon*

**513**

12:50-13:10

**Fabrication and characterization of low-cost flooring material based on Sri Lankan red clay and sewage sludge**

*D.M.S.S. Dissanayake, H.M.J.C. Pitawala, H.K.G.K.D.K. Hapuhinna and W.A.P. Weerakoon*

13:10

**END OF SESSION**

## Committees – IRC UWU 2022

### Organizing Committee

<b>Patron</b>	: Prof. J. L. Ratnasekera
<b>Coordinator</b>	: Dr. K.M.M.C.B. Kulathunga
<b>Secretary</b>	: Dr. N.M.N. Nambapana
<b>Assistant Secretaries</b>	: Ms. D.I. Egodavitharana Ms. M.A.S.H.N. Marasinghe
<b>Faculty coordinators</b>	: Dr. G.A.A.R. Perera : Dr. G.L.N.P. Sumanarathna : Dr. H.M.C.M. Herath : Dr. N.C. Jayasinghe : Dr. K.M.R.K. Kulathunga

Activity	Team Members	
<b>Digital Media, CMT, and Web Management</b>	<b>Mr. A.M.B. Rathnayake</b> Dr. N.W. Gunasekara Mr. V.M.I.P. Weerasundara Mr. D.M.C.S. Dissanayake	Dr. M. Ramashini Mr. M.L.C. Sayuranga Mr. S.A. Epitawatta
<b>Hospitality</b>	<b>Ms. A.C.I.D. Karunarathne</b> Mr. W.M.A.H. Bandara Mr. A.M.N.M. Gangananda Ms. R.M.C.S. Rathnayaka Ms. K.D.I.M. Perera	Ms. W.G.S.R. Wijesundara Ms. R.A.D.D.N. Ranatunga Mr. W.T. Hansaka Ms. D.G.U.N. Ulugethenna
<b>Video Highlights, Media and Publicity</b>	<b>Mr. C.J.P. Kulathilake</b> Dr. J. Siyambalapitiya Ms. S. Samarakoon Mr. M.L.C. Sayuranga	Prof. H.M.W.M. Herath Ms. D.H.M. Dewasiri Mr. P.C.B. Dias Ms. H.H.S.U. Samarakoon
<b>Programme Booklet &amp; Proceedings</b>	<b>Prof. D.K.D.D. Jayasena</b> Dr. M.G.M.K. Meegahakubura Dr. B.V.A.S.M. Bambaranda Dr. U.D.P. Manjula Mr. D.B.O. Malaweera	Prof. W.A.J.P. Wijesinghe Ms. N.S. Withanage Dr. S.N.S.L.H.P. Neelawala Dr. N.W. Gunasekara Mr. S.R. Nawarathna

<b>Fund Raising</b>	<b>Dr. G.A.A.R. Perera</b> Dr. M.K.S.L.D. Amarathunga Dr. M. A. R. L. Samaraweera	Mr. A.M.D.B. Nawarathna Dr. G.W.R. Keerthiwansa
<b>Invitations and Registration</b>	<b>Dr. K.M.R.K. Kulathunge</b> Ms. A.P. Abeygunawardena Ms. P.O. De Silva Mr. P.M. Dahanayake Ms. M.J.F. Azrah	Ms. H.G, P.S.C. Dilhani Ms. G.A.A.I. Tennakoon Ms. D.H.M. Dewasiri Mr. H.M. Duminda Chana
<b>Hall Arrangements</b>	<b>Dr. G. Abhiram</b> Dr. S.R.W.M.C.J.K. Ranawana Ms. I.U. Wickramarathna Ms. A.C.W.W.C.L.K. Coswatte	Prof. P.E. Kaliyadasa Dr. U.G.A.T. Premathilake Ms. K.P.G.K.P. Guruge Mr. E.P.D.N. Thilakarathna
<b>Certificate Designing &amp; Printing</b>	<b>Dr. P.N.S. Kumara</b> Mr. A.A.G.D. Amarasooriya Mr. P.M. Dahanayake	Dr. T.G.N.D. Karunarathne Mr. W.A.P. Weerakoon
<b>Logistics</b>	<b>Mr. A.M.D.B. Nawarathne</b> Mr. A.J.M.D.N.B. Nawala Ms. U.G.O. Sammani Ms. G.H.V. Harshani	Ms. G.B.S. Gunawardana Ms. C.P. Danthanarayana Ms. H.N. Jayawardene
<b>Medals, Souvenirs and certificates</b>	<b>Mr. H.G.C.R. Laksiri</b> Ms. W.B.M.S.C. Wijayakoon Mr. K.H.M.C. Chandrasiri Ms. R.T.D. Gunarathne	Dr. N.H.L. Pradeepa Mr. P.M. Dahanayake Ms. I.P. Dharmathilaka
<b>Technical Team</b>	<b>Mr. T.I. Perera</b> Mr. S.A. Epitawatta	Mr. D.M.C.S. Dissanayake

## Conference Track Coordinators

Track	Coordinators	Supportive Staff
<b>Agriculture &amp; Animal Husbandry</b>	Dr. U.D.P. Manjula Dr. G. Abhiram	Mr. K.G.C.B. Wijebandara Ms. K.M.D.A. Senevirathne Ms. S.A.P. Sirisena Ms. H.O. Kohuhennadi
<b>Aquaculture &amp; Fisheries</b>	Ms. R.M.G.N. Rajapaksha Dr. A.S. Mahaliyana	Ms. G.A.J. Sandamali Ms. A.P. Madarasinghe
<b>Business Management</b>	Mr. C.J.P. Kulathilaka Ms. P.G.M.S.K. Gamage	Ms. L.E.A.N. Perera Ms. L.M.I.M. Lewliyadda
<b>Computing &amp; Informatics</b>	Mr. S.M.J.D.P. Samarakoon Mr. W.M.C.J.T. Kithulwatta	Ms. G.S.M. Perera Mr. P.M. Dahanayake Mr. K.H.M.C. Chandrasiri
<b>Engineering &amp; Technology</b>	Mr. T. Thevathayarajh Ms. G.A.A.I. Tennakoon	Ms. U.U. Sanjeewani Ms. G.N.N. Dissanayaka
<b>Environmental Sciences</b>	Dr. I.D. Singhalage Dr. A.A.G.D. Amarasooriya	Ms. K.K.C. Devika Ms. R.B.M.B.N. Ramanayake Ms. G.D.M.T.N. Gamage Ms. G.B.S. Gunawardana
<b>Food Science &amp; Bioprocesses</b>	Dr. M.M.S.N. Premathilake Dr. A.M.N.L. Abeysinghe	Mr. U. Ranasuriya Mr. H. P. D. P. Pathirana Ms. T. Kanagarajah Ms. K.P. Dilshani
<b>Hospitality &amp; Tourism</b>	Ms. C.P. Danthanarayana Ms. U.G.O. Sammani	Ms. R.A.D.D.N. Ranatunga Ms. G.H.V. Harshani Ms. H.N. Jayewardena
<b>Humanities, Social &amp; Library Sciences</b>	Mr. D.C. Wijayasekara Ms. H.G.P.S.C. Dilhani	Mr. H.M. Duminda Chana Ms. M.J.F. Azrah
<b>Material &amp; Mineral Sciences</b>	Dr. W.D.C.C. Wijerathne Mr. W.A.P. Weerakoon	Mr. I.D.D. Perera Ms. D.M.C.L. Dissanayake Mr. D.G.A.C. Dayarathne Ms. M.B.M. Wimalasiri

## Past Symposia

Specializing in entrepreneurial higher education in Sri Lanka, Uva Wellassa University (UWU) is driven with the vision to promote creative thinking and the creation of knowledge and ideas of value.

### 1<sup>ST</sup> RESEARCH SYMPOSIUM

*"Value Addition to the Natural Resource Base"*

📅: September 16 and 17, 2010

Under the theme of "Value Addition to the Natural Resource Base" the 1st research symposium of UWU was held in September 2010 with 176 research presentations that came under five thematic areas. Several lab-scale breakthroughs that were presented were highlights of the symposium.

### 2<sup>ND</sup> RESEARCH SYMPOSIUM

*"Towards a Knowledge Economy"*

📅: December 15 & 16, 2011

The 2nd symposium took place in December 2011 under the theme "Towards a Knowledge Economy." Undergraduates of UWU, academics, scientists, industrialists, and entrepreneurs from both local and international levels found a platform to deliberate, debate, and exhibit their research outputs, innovative ideas, and entrepreneurial ventures at this symposium. Research work falling under the fields of Animal Science, Export Agriculture, Computer Science, Management, and Science & Technology were shared at this conference.

### 3<sup>RD</sup> RESEARCH SYMPOSIUM

*"Meeting Global Challenges via Knowledge and Wisdom"*

📅: November 22 & 23, 2012

The 3rd symposium, themed "Meeting Global Challenges via Knowledge and Wisdom," which was held in November 2013, opened its doors to students from three other degree programs including Tea Technology and Value Addition, Mineral Resources Technology, and Industrial Information Technology to present their research findings. The introduction of a novel presentation format, the poster session, provided an alternative opportunity for presenters who found oral presentations to be a challenge.

## 4<sup>TH</sup> RESEARCH SYMPOSIUM

*"Value Addition towards Economic Growth and Prosperity"*

**i**: December 12 & 13, 2013

December 2013 saw the 4th research symposium which provided a platform for researchers to converse about the cutting-edge work they have been doing. The theme, "Value Addition towards Economic Growth and Prosperity," created a space ideal for scholars who wanted to demonstrate their innovative knowledge in research. Further, the symposium contributed to the social wellbeing and development of Sri Lanka.

## 5<sup>TH</sup> RESEARCH SYMPOSIUM

*"Value Addition for Sustainable Development"*

**i**: January 29 & 30, 2015

The 5th research symposium took place in January 2015, a space for young and promising researchers to present their work to, interact with and learn from one another under the theme "Value Addition for Sustainable Development." The symposium covered all the degree programs offered by UWU through several parallel technical sessions. The poster session of the symposium was an added opportunity for the researchers.

## 6<sup>TH</sup> RESEARCH SYMPOSIUM

*"Towards Emerging Trends in Value Addition"*

**i**: January 28 & 29, 2016

The 6<sup>th</sup> UWU research symposium themed "Towards Emerging Trends in Value Addition" offered a forum to share current research on value addition. With the advancement of technology, innovation play an integral role in excelling development. Held in January 2016, the symposium welcomed a number of researchers, academics, professionals, practitioners, and undergraduates who were eager to change the way we see the world. From over 350 submissions, 215 abstracts were selected through the review process to present under 15 thematic areas.



## 1<sup>ST</sup> INTERNATIONAL RESEARCH SYMPOSIUM

*"Global Trends in Technopreneurial Development"*

📅: January 19-21, 2017

Having conducted six research symposiums that laid a path for homegrown ideas and innovation to flourish, in January 2017, the symposium went international. The 7<sup>th</sup> research symposium of UWU bore the theme "Global Trends in Technopreneurial Development." This first International Research Symposium was also referred to as IRSUWU 2017. The 1<sup>st</sup> International Research symposium hosted work that was done under its sub themes: Agriculture, Biology, Computer Science, Food Science, Process Engineering, Management Science, and Earth Sciences.

## 2<sup>ND</sup> INTERNATIONAL RESEARCH SYMPOSIUM

*"Emerging Technologies for an Innovative Green Economy"*

📅: February 1-3, 2018

Uva Wellassa University organized its 2<sup>nd</sup> International Research Symposium that was themed "Emerging Technologies for an Innovative Green Economy," in February 2018. The gathering that convened at the university premises in Badulla encouraged researchers engage with each other's findings and share them with the rest of the world.

## 3<sup>RD</sup> INTERNATIONAL RESEARCH CONFERENCE

*"Sustainable Business Transition via Technology and Innovations"*

📅: February 7-9, 2019

The International Research Conference of Uva Wellassa University 2019 took place in February 2019 at UWU premises under the theme "Sustainable Business Transition via Technology and Innovations." The Vice Chancellor Prof. J.L. Ratnasekera presided over the conference's opening session. Over 800 participants, including 45 participants from Australia, New Zealand, Japan, and India presented here. IRCUWU2019 consisted of 18 tracks under different thematic areas. A sum of 592 papers were presented in oral (358) and poster (234) formats.

## 4<sup>TH</sup> INTERNATIONAL RESEARCH CONFERENCE

*“Sustainable Business Transition through Information and Knowledge Dissemination”*

📅: July 29 & 30, 2020

With the year 2020 came the global Covid-19 pandemic that changed the ways in which human beings interacted. As a sensible step, UWU was proactive in organizing IRCUWU2020 themed “Sustainable Business Transition through Information and Knowledge Dissemination” as an online conference. IRCUWU2020 was a historical moment for Uva Wellassa University and Sri Lanka as it is the first large scale online research conference organized by a Sri Lankan State University where a total of 356 research papers were presented under 11 thematic areas.

## 5<sup>TH</sup> INTERNATIONAL RESEARCH CONFERENCE

*“Exploring Potentials in in Challenging Periods”*

📅: July 1 & 2, 2021

Following the previous year’s format IRCUWU2021 too was held virtually in July 2021 under the theme “Exploring Potentials in in Challenging Periods”. Over 250 research papers were presented under 10 thematic areas at this conference. The two day virtual conference consisted of an inaugural session which was followed by three technical sessions.









## Uva Wellassa University

Uva Wellassa University of Sri Lanka is located in the midst of the misty mountains of Badulla in the Uva Province. It is unique not solely for its picturesque scenery and cold climate but for being Sri Lanka's first entrepreneurial university. As one of the youngest universities in the country, Uva Wellassa University, under its motto "Value Addition to the National Resource Base" targets the production of well-rounded and entrepreneurially sound graduates to fulfill the industry gaps for long term national development.



Uva Wellassa University was established as the 14<sup>th</sup> national university of Sri Lanka in the year 2005. At present, it is home to four faculties: Faculty of Animal Science and Export Agriculture, Faculty of Applied Sciences, Faculty of Management, and Faculty of Technological Studies. Each faculty accommodates degree programs tailored to add value to different aspects of Sri Lanka's diverse resource base in the areas of Aquatic Resources, Animal Science, Export Agriculture, Tea, Palm & Latex Technology, Mineral Resources, Hospitality, Tourism & Events Management, Human Resources, Entrepreneurship, Science and Technology, Information Technology, and Biosystems and Engineering Technology. Since its inception, UWU has been successful in molding out tech savvy graduates highly specialized in their subject areas who bear positive attitudes and soft skills such as communication, creativity, rational thinking, and positive attitudes. The entire teaching, learning and research experience delivered by the university emphasizes the requirement, gaps and possibilities in the arena of value addition to the national resources of the country.



The university is strengthened by its young and robust team of highly competent lecturers who bring their diverse portfolio of knowledge, skill and experience to enrich the teaching-learning experience in the university. Uva Wellassa University offers students a sturdy background for scientific research in various disciplines with the guidance of experienced scholars. Scientific research activities carried out within the university are fully aligned with the vision of value addition to the country's resource base focusing on their utilization and optimization. The annual International Research Conference provides the university's students with a recognized platform to share their research and obtain important insights about their research, while facilitating the interaction with industrial and scholarly experts.

The student intake of the university is increasing every year and presently it houses over 3000 undergraduate and postgraduate students. The students of Uva Wellassa University are engaged in a multifold of extra-curricular activities beneficial to the local community and the university as well as themselves by the development of personal aptitudes.



Fulfilling its duty as a university in the creation and dissemination of knowledge, UWU has been carrying out activities assisting the sharing of knowledge, experience and resources with the local community. The University Business Linkage Cell, faculty's technology transfer cells, and other service centers aid the bridging of the gap between the university system and society and are vital in the dissemination relevant resources. Programs organized by the university also cater to the societal requirements that arise from time to time. Uva Wellassa University advocates for sustainable development and is keen on creating and promoting environment-friendly practices and alternatives. The undergraduates of UWU are fostered within a stimulating environment which encourages innovation in its student population. Uva Wellassa University's alumni have demonstrated the university's capability in producing well-rounded, employable, technologically savvy, and entrepreneurial graduates. Uva Wellassa University continuously strives to fulfill its vision in the addition of value to Sri Lanka's resource base, leading ultimately to the country's socio-economic advancement.

## Main Sponsors

