

Centre of Excellence for Value Addition -
Uva Wellassa University
5th Research Symposium

5th Research Symposium

“Value Addition for Sustainable Development”



Uva Wellassa
University

Uva Wellassa University of Sri Lanka
Passara Road
Badulla 90000
Sri Lanka

January 29 & 30, 2015

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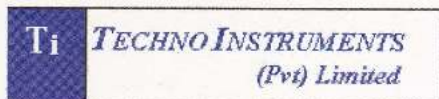


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5th Research Symposium

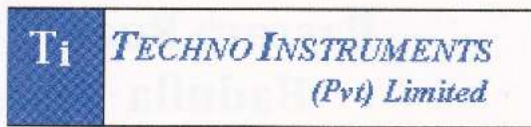
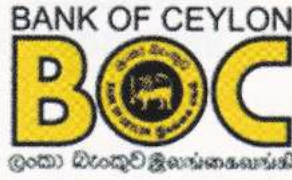
“Value Addition for Sustainable Development”

PROGRAMME

**Uva Wellassa University
Passara Road
Badulla
Sri Lanka**

January 29 & 30, 2015

We are Thankful to ...

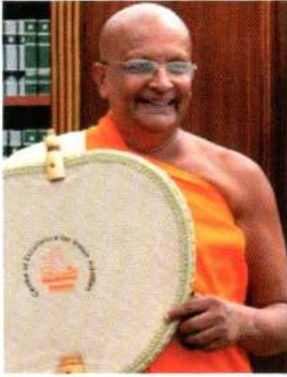


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Message from the Chancellor



I am delighted to send this message of greeting as the Chancellor to the 5th Research Symposium organized by the Uva Wellassa University of Sri Lanka. I sincerely thank the Vice Chancellor for inviting me to send a message and to participate in this symposium as the Chief Guest. This year the theme of the symposium has been chosen as “Value Addition for Sustainable Development”, which is timely and relevant theme of great consequence. The theme is also in line with the vision and mission of Uva Wellassa University.

The university organizes this research symposium to disseminate the **knowledge gathered through** research activities of its students and the staff members to a wider academic community in the country. Organizing such activities uplift the face of the university as well as the Uva region. With the Government of Sri Lanka having a strong commitment to the promotion of research and dissemination of knowledge on important areas of economic and social progress, it is commendable that the Uva Wellassa University, an emerging university, organized a national level symposium on a relevant theme harmonized with the objectives of the Government. This will provide valuable opportunities for researchers to present new research and knowledge on topics of global importance addressed by many disciplines of study available at the university. I would like to personally welcome each of the participants to this important gathering who will share their experiences and research findings for the benefit of the participants.

I would also like to thank each one of the participants for attending our conference and the resource personal for sharing their expertise and experience. I sincerely hope that your deliberations will help us to positively contribute towards sustainable development through value addition. Finally let me to offer my sincere thanks to dedicated symposium organizing team, office staff, sponsors and volunteers for their support and contribution for organizing this event.

May triple gems bless you

Bengamuwe Sri Dhammadinna Nayaka Thero
Chancellor
Uva Wellassa University

Message from the Vice Chancellor



Uva Wellassa University of Sri Lanka is standing in front of its next milestone, the 5th Research symposium 2015 with the theme "Value Addition for Sustainable Development". It is with great pleasure and keenness I deliver this message as the Vice Chancellor of Uva Wellassa University, the Centre of Excellence for Value Addition. First of all, I would like to extend my appreciation to the many young researches who submitted high-quality papers for this symposium. In addition, I am particularly honored to be joined in this event by very distinguished eminent scholars, chairpersons, panelists, editorial board and the organizing committee.

Uva Wellassa University is the so-called experimentation setup to be a new paradigm in Sri Lankan higher education system. It is a think tank of Sri Lanka. Our university equips its young entrepreneurs with best possible tools to become expert skeptics when they face the society which demands effective action towards national development. Its graduates are the fruits of this concept and successful end-product of the experimentation of Sri Lankan higher education system.

This research symposium provides an appropriate and timely platform to bring together such young and promising researchers to present their work, interact with and learn from each other on innovative theoretical and evidence-based research. Research is formalized curiosity which creates new knowledge. Research is also to see what everybody else has seen, and to think what nobody else has thought. Therefore, for researchers, it is very useful to frequently attend and present their recent research papers at conferences and seminars, and receive feedback and comments.

Further, the government, industry, academia and international organizations have a responsibility to support and nurture our young and early-career researchers. This will lead to realize their full potential. In turn the fruits of this research will lead to the development of the country by adding value to its natural resources.

Dr. G. Chandrasena
Vice Chancellor
Uva Wellassa University

Message from the Chairperson of the 5th Research Symposium



I am indeed privileged to write a message to the 5th Research Symposium of Uva Wellassa University to be held on 29th and 30th of January 2015 at the university premises under the theme of “value addition for sustainable development”. Value addition aimed at sustainable development is an important area of work necessary to conduct in order to overcome the societal challenges faced by the human being today. Realizing this key collective social need, UWU organizes its 5th research symposium to showcase the research activities of the final year undergraduates, academic and administrative staff members to a wider academic community with an aim to stimulate, promote and strengthen the research vote at

UWU and its academic culture by giving an opportunity to its members to interact and collaborate with leading researchers working outside the university.

Over the past four (04) research symposia, research activities at the university have considerably grown up from its nursing status. Today we are holding our 5th research symposium, where in addition to final year undergraduate's research presentations, a substantial number of speeches are given by members of the academia. We highly appreciate members of the academic community who contributed to this event by sending their novel research findings to our symposium. Having contributions from academia encourages our journey to develop a robust research culture at UWU and catalyzes the process. We look forward to improve and keep sustained this trend in future. In this symposium, we have organized number of parallel technical sessions covering all our eleven (11) degree programs and a poster session. More than 200 presenters are expected to present their research findings in these sessions which we truly believe will be exploited by the participants to create a platform to exchange and discuss valuable scientific ideas to be developed later into more meaningful interactions.

I wish to express our deep gratitude to Chancellor Most Venerable Bengamuwe Sri Dammadonna Nayaka Thero for his generous endowment to make this event success. I also wish to extend my sincere gratefulness to the Manager, Bank of Ceylon, Badulla for being the main sponsor of our event. My thanks are also due to Hemsons (Pvt) Ltd, Analytical Instruments, Organic Trading, Techno Instruments, Rajarata Tiles and People's Bank, Badulla for sponsoring and extending their generous support to make this event a success. I also take this opportunity to thank you the symposium organizing committee, specially the secretary, faculty coordinators and activity coordinators who worked hard with great enthusiasm and dedication amidst so many obstacles to organize this event successfully. Last but not least, I extend my thankfulness to Vice Chancellor, Registrar and all academic and administrative staff members of UWU and members of the review panel for their continued support to make this event success.

I wish the 5th research symposium of UWU to be a great success.

Dr. A. R. Kumarasinghe
Chairperson of 5th Research Symposium
Uva Wellassa University




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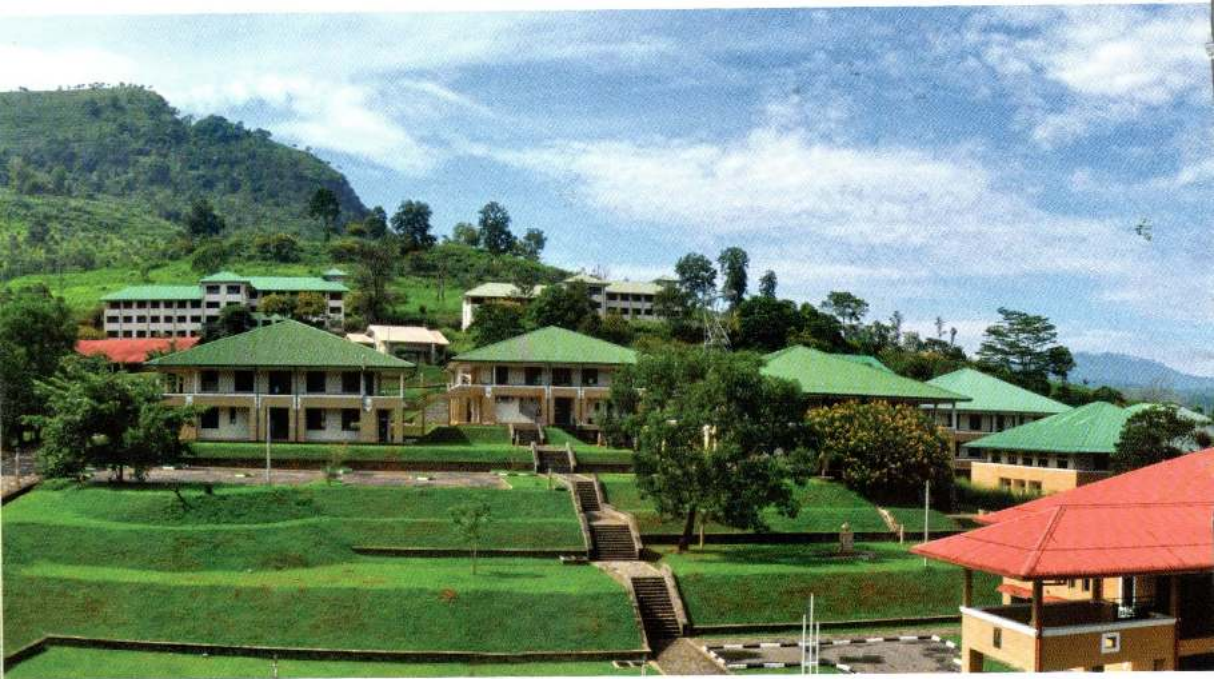
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The Centre of Excellence for Value Addition



Civil society in Uva Province constituting of the members of the clergy, politicians, government servants and public, clamored for setting up of a new university in the belief that it would enhance their opportunities for rapid development. In response to this clamor to establish a university in the Uva Province, the Uva Wellassa University (UWU) of Sri Lanka was established by government gazette effective 1st June 2005 in Badulla, three kilometers on to the Passara Road, in the salubrious surroundings of a panoramic location in the hills. The university has a strong concept based on the theme; value addition to the local resource base and supported by a young team of qualified lecturers ready to take off.

UNIVERSITY'S MAJOR INTERESTS

Uva Wellassa University is a modern entrepreneurial University under the UGC umbrella to become a fully-fledged teaching and research centre with a strong science and technology focus while acknowledging the need for university

degrees to be flexible and interdisciplinary in order to meet the social, scientific and technical needs for national development.

The university aims to develop a strong research culture focusing on value addition to natural resources. It also develop research links into hitherto neglected service sector. The sectors covered by the university are Tea, Rubber, Palm (e.g. coconut), Export Agriculture, Minerals, Fisheries, Animal Sciences, Computer Science applications in industry and business, Entrepreneurship & Management, Tourism, Hospitality and Events Management. Natural resources will find new processed value from the university research and that knowledge will be passed onto the students and the country in general through a variety of courses.

Setting up of this University is a major boost to the government's effort to promote demand driven, education focused towards building capacity for national development. Because of this university, Badulla is already becoming a repository of expertise hosting rich course offerings in a variety of significant areas concerned with national objectives. The university recognizes its role as a strategic partner in Uva province, and therefore aspires to contribute to the region's economic growth, social development and environmental sustainability. All academic staff members are bound to deliver three pillars of services, which they undertake at the outset and firmly adhere to. Their performances are evaluated based on the contribution on these services, which are "Lecturing and Mentoring", "Research on value addition" and "Social Responsibilities".

WAY FORWARD

We are relatively a new University having commenced academic programs in 2006. Factors that adversely affect the academic activities of many other universities are fortunately not present here. We capitalize on opportunities in the business and economic environment and take protective measures against threats. We continue to develop strengths and transform weaknesses into strengths. We are well aware that the scenario can change when changes take place in political, economic and social environment. Our strategy therefore must be fundamentally robust to drive the University towards its vision.

පිපල්ස් VISA ක්‍රෙඩිට් කාඩ්පත

අවැසි මොහොතේ අවැසි සුමිඟුරු



පිපල්ස් විසා ක්‍රෙඩිට් කාඩ්පත

පිපල්ස් විසා කාඩ්පත අත අත්තමි ඔබ ලොව කොතැනක සිටියත් පහත දැක්වෙන පහසුකම් ලබා ගැනීමට අවස්ථාව ඇත.

- පසුදු ගෙවීම පිණිස භාණ්ඩ හා සේවා මිලට ගැනීම. ලොව පුරා මිලියන 30 කට අධික හා ශ්‍රී ලංකාව තුළ පමණක් 15,000 කට වැඩි, VISA ලාංඡනය ප්‍රදර්ශනය කර ඇති අනුමත වෙළඳ ආයතන වලින් සලකුණු කර ඇති මිලටම කාඩ්පතින් භාණ්ඩ හා සේවා ලබා ගත හැකිය.
- අනුමත සීමාවෙන් 50% දක්වා මුදල් අත්තිකාරම් ලොව පුරා මිලියනකට ද, ශ්‍රී ලංකාව තුළ පමණක් එක් දහස් පන්සියකට වැඩි VISA ලාංඡනය සහිත ATM යන්ත්‍ර වලින් දවසේ පැය 24 පුරාම ඒ ඒ රටේ තෝටු වලින් මුදල් ලබා ගත හැකිය.

පහත දැක්වෙන යුරෝපීය අංගයන් තුළින් පිපල්ස් විසා ක්‍රෙඩිට් කාඩ්පත ඔබගේ මිතුරෙකු කරන්නෙහි.

- අයදුම් පත සරලයි. ඉදිරිපත් කළ යුතු ලියවිලි සීමිතයි.
- කඩිනම් කාඩ්පත් ලබා ගත හැකිය.
- සේවා ගාස්තු අවමයි.
- අය කරන පොළිය ද අවමයි.
- පිපල්ස් ට්‍රැවල්ස් වෙතින් පොළී රහිතව සමාන වාරික තුනකින් ගෙවීමට ගුවන් ටිකට්පත්. (කොන්දේසි සහිතයි)
- ගාඩා සහ සේවා මධ්‍යස්ථාන 600 වැඩි ගණනක් මගින් කාඩ් මධ්‍යස්ථානය සම්බන්ධ කරගත හැකිය. (අයදුම්පත් භාර දීමටත්/ මුදල් ගෙවීමටත්)

තවත් පහසුකම් ටැගියකි

- ප්‍රධාන කාඩ්පතට අමතරව අතිරේක කාඩ්පත්.
- විදේශ අධ්‍යයන ආයතන හා විශ්වවිද්‍යාල ගාස්තු ක්‍රෙඩිට් කාඩ්පතින් අන්තර් ජාලය හරහා ගෙවීමට හැකිය.
- රෝහල් ගතවීම වැනි අවස්ථාවලදී සීමාව ඉක්මවා වුවත් බිල්පත් ගෙවීමට අනුමත කරවා ගත හැකිය. (කොන්දේසි සහිතයි)
- උපරිම දින 51 හා අවම දින 21 පොළී රහිත ණය කාල සීමාවක්.
- එකවර ගෙවිය නොහැකි නම් යේෂයෙන් 5% පමණක් ගෙවීම සහ ඒ සඳහා දින 21 කාලයක්.

අයදුම් කරන්න පිපල්ස් විසා ක්‍රෙඩිට් කාඩ්පතක්. ඉදිරිපත් කරන්න පහත දැක්වෙන ලියවිලි වලින් ඔබට අදාළ ලියවිලි

මායික වැටුප් ලබන්නේ නම්

- 1 - හිසි ලෙස සම්පූර්ණ කළ අයදුම්පත
- 2 - (අ)ජාතික භාද්‍රණමිපතෙහි ජායා පිටපතක් (අනිවාර්යයි) (අ)පාස්පෝට් ඇත්නම් එහි ජායා පිටපතක්
- 3 - මාස 02 වැටුප් පත්‍රිකා(සේවා ස්ථානයෙන් සහතික කරන ලද)
- 4 - සේවය තහවුරු කිරීම සඳහා සේවා ස්ථානය විසින් නිකුත් කරන ලද ලිපියක්.
- 5 - බිල්පත් තහවුරුවක් (විදුලි, ජල බිල්පතක පිටපතක්)

වෙළඳ ව්‍යාපාරයක නියුතු නම්

- 1 - හිසි ලෙස සම්පූර්ණ කළ අයදුම්පත
- 2 - ජාතික භාද්‍රණමිපතෙහි (අනිවාර්යයි) හා පාස්පෝට් (ඇත්නම්) ජායා පිටපතක්
- 3 - වෙළඳ ආයතන ලියාපදිංචි කළ සහතිකයේ ජායා පිටපතක්
- 4 - ආදායම් බදු ගෙවීම් වලට අදාළ ලියකියවිලි
- 5 - වසර දෙකකට අදාළ විගණන කළ අවසන් ගිණුම් ප්‍රකාශන
- 6 - මාස 6 ක ජංගම ගිණුම් ප්‍රකාශන හෝ මහජන බැංකුවේ පවත්නා ක්‍රියාකාරී ඉතිරි කිරීම් ගිණුම් පිළිබඳ විස්තර.
- 7 - ඉහත 4 හා 5 නොමැතිනම් ගිණුම් පවත්වාගෙන යන මහජන බැංකු ගාඩා කළමනාකරුගේ විශේෂ නිර්දේශය. (ජායා පිටපතක් බැංකු කළමනාකරු විසින් සහතික පිටපත් බවට තහවුරු කළ යුතුයි).
- 8 - බිල්පත් තහවුරුවක් (විදුලි, ජල බිල්පතක පිටපතක්)

කාඩ් බිල්පත් ගෙවීම

මුදල් මගින් හෝ වෙක්පත් මගින් වැඩි කරන ඕනෑම දිනක පෙ.ව 8.30 සිට ප.ව 3.00 දක්වා ඕනෑම මහජන බැංකු ගාඩාවකට ගෙවිය හැකිය. වෙක්පත් පිපල්ස් කාඩ් මධ්‍යස්ථානයට තැපැල් කර එවීමෙන් හෝ රාජකාරි වේලාව තුළ කාඩ් මධ්‍යස්ථානයට භාර දීමෙන් ද ගෙවිය හැකිය. (වෙක්පත් උපලබ්ධියෙන් පසුව බැර කරනු ලැබේ).

වැඩි විස්තර සඳහා

පැය 24 පුරා ක්‍රියාත්මක උදකටන අංක 2490490 ඔස්සේ අපගේ ගනුදෙනුකාර සේවය ඇමරිකාවේ හෝ රාජකාරි වේලාවන් තුළදී පිපල්ස් කාඩ් මධ්‍යස්ථානයට ඇමරිකාවේ ඔබට අවශ්‍ය සියලුම විස්තර ලබා ගැනීමට හැකිය.



කළමනාකරු, මහජන බැංකුව, බදුල්ල, උදකටන අංක - 055-2223065, 055-2222288



5th Research Symposium



Development that meets the needs of present without compromising the ability of future generations to meet their own needs defines the sustainable development. The ability of present to uphold this core value of sustainable development has so far not been promising. Research focused on value addition is therefore imperative in generating new knowledge, products, services and processes which are vital to devise new strategies to steer current resource base in order to protect, promote and achieve key ideas of sustainable development. Having realized this basic need in facing the societal challenges in 21st century, Uva Wellassa University (UWU) organizes its 5th research symposium on the theme “Value Addition for Sustainable Development” to showcase the research activities of the final year undergraduates, academic and administrative staff members to a wider academic community with an aim to stimulate, promote and strengthen the research culture at UWU and its academic culture by giving an opportunity to its members to interact and collaborate with leading researchers working outside the university.

GOALS OF THE SYMPOSIUM

- Stimulating research on value addition towards achieving sustainable development and opulence.
- Creating a platform for staging research findings and a forum for exchanging views for wider meaningful interaction among scholars.
- Exploring opportunities for interactions and collaborations with industries, researchers and other stakeholders.

SYMPOSIUM TRACKS

There are eleven (11) symposium tracks as outlined below. Each track has its own oral and poster session to which all participants are welcome to attend. Furthermore, each track represents a degree program currently ongoing at UWU.

- Animal Science (ANS)
- Aquatic Resources and Technology (AQT)
- Export Agriculture (EAG)
- Tea Technology and Value Addition (TEA)
- Palm and Latex Technology and Value Addition (PLT)
- Science and Technology (SCT)
- Mineral Resources Technology (MRT)
- Computer Science and Technology (CST)
- Industrial Information Technology (IIT)
- Entrepreneurship and Management (ENM)
- Hospitality, Tourism, and Events Management (HTE)



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- Water Quality Testing Equipment
- Molecular Biology Equipment and Reagents
- Water Purification Systems
- Freezers ULT, Microwave Digesters
- Air Samplers, Air Quality Monitors
- Laboratory Furniture
- Clean Air Systems

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- Biochemistry
- Histopathology
- Microbiology
- Immunology
- Capillary Electrophoresis
- Immunohistochemistry
- Rotational Thromboelastometry

CHEMICALS, GLASSWARE AND CONSUMABLE

GENERAL LAB EQUIPMENT

- Ovens, Incubators, Water Baths, Autoclave
- Balances

ANIMAL HUSBANDRY

- Milking Equipment, Processing Plants
- AI Equipment, Vaccines
- LN Cans, Milk Cans

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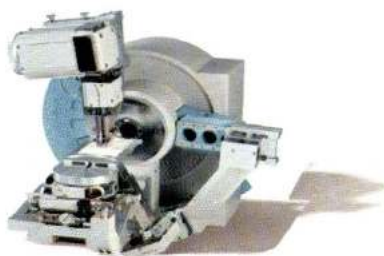
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Mr. S. T. C. I. Wimaladharma

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Day 01: January 29, 2015

Inaugural Session

Venue: Main Lecture Theater (MLT)

- 08.00 a.m. Registration
- 09.00 a.m. Lighting Oil Lamp
National Anthem
University Anthem
- Chief Guest** Most Venerable Bengamuwe Sri Dhammadinna Nayake Thero/
Chancellor, Uva Wellassa University
- Chairperson** Dr. G. Chandrasena / Vice Chancellor, Uva Wellassa University
- 09.15 a.m. Welcome Address by Dr. A. R. Kumarasinghe
Symposium Coordinator/ 5th Research Symposium and
Chairman/ Research Committee
- 09.20 a.m. Address by Dr. G. Chandrasena
Vice Chancellor, Uva Wellassa University
- 09.25 a.m. Address by the Keynote Speaker, Prof. Veranja Karunaratne,
Associate Director/ Research & Strategic Relations, Sri Lanka
Institute of Nanotechnology (Pvt) Ltd. and Senior Professor of
Chemistry/ University of Peradeniya
- 10.10 a.m. Highlights of the 5th Research Symposium
- 10.30 a.m. Vote of thanks by Dr. K. W. Sandya N. Kumari
Symposium Secretary/ 5th Research Symposium
- 10.35 a.m. Tea
- 11.00 a.m. Parallel Technical Sessions
- 01.00 p.m. Lunch
- 02.00 p.m. Technical Sessions Contd.
- 04.00 p.m. Poster Sessions and Tea
- 07.00 p.m. Symposium Dinner

Programme Contd.



Day 02: January 30, 2015

- 09.00 a.m. Session Keynote Address
- 09.30 a.m. Parallel Technical Sessions
- 01.00 p.m. Lunch
- 02.00 p.m. UWU staff Research Presentation at MLT

Award Ceremony

Venue: Main Lecture Theater (MLT)

- Chairperson** Dr. G. Chandrasena
Vice Chancellor, Uva Wellassa University
- 03.00 p.m. Overview of the 5th Research Symposium
by Dr. A. R. Kumarasinghe
Symposium Coordinator, 5th Research Symposium/ Chairman,
UWU Research Committee
- 03.10 p.m. Address by Dr. G. Chandrasena
Vice Chancellor, Uva Wellassa University of Sri Lanka
- 03.15 p.m. Presentation of Awards
- 03.40 p.m. Vote of Thanks by Dr. K. W. Sandya N. Kumari
Symposium Secretary, 5th Research Symposium
- 03.45 p.m. Tea

Venues of the Technical Sessions January 29-30, 2015

Technical Session – Animal Science

Venue: E2 Lecture Theater

Technical Session – Aquatic Resources and Technology

Venue: GIS Laboratory

Technical Session – Export Agriculture

Venue: Main Lecture Theater (MLT)

Technical Session – Palm & Latex Technology and Value Addition

Venue: A1 Lecture Theater

Technical Session – Tea Technology and Value Addition

Venue: A2 Lecture Theater

Technical Session – Entrepreneurship and Management

Venue: C2 Lecture Theater

Technical Session – Hospitality, Tourism and Events Management

Venue: C3 Lecture Theater

Technical Session – Computer Science and Technology & Industrial Information Technology

Venue: D-Block Computer Lab

Technical Session – Mineral Resources Technology

Venue: D2 Lecture Theater

Technical Session – Science and Technology

Venue: D1 Lecture Theater

Poster Session and Sales Outlets

Venue: E1 Lecture Theater

Research Highlights

Animal Science

Development of Avocado (*Persea americana*) incorporated set yoghurt A novel product: Fruit yoghurt

This work describes the development of Avocado incorporated set yoghurt and extending the shelf life of the product to seven days by controlling enzymatic browning of Avocado.



Effect of different aerobic and anoxic time periods on the effluent water quality of a sequence batch reactor in a meat processing plant

The research work described here focuses on improving the efficiency of sequencing batch reactor in poultry slaughter house waste water treatment. The best time combination of aerobic and anoxic time period for simultaneous carbon oxidation, nitrification and denitrification performance of SBR were investigated.



A preliminary study on the Milk Urea Nitrogen (MUN) values of the Ambewela farm

A preliminary study was conducted to identify the prevailing MUN values of a commercial dairy herd in Sri Lanka. Since there is no baselines information on dairy cattle MUN values in Sri Lanka, this study provides information on MUN values and efficiency of protein and carbohydrate utilization in commercial dairy cattle diets in Sri Lanka.



Development of micropropagation protocol for *Aponogeton* species of Sri Lanka

We focused here to develop a culture medium, supplemented with BAP and IAA, suitable combination for shoot regeneration of *Aponogeton crispus* from selected concentrations. Hormone free MS media is effective for seed culture of *Aponogeton* species. It will be a new approach in the Sri Lankan tissue culture industry by giving economical and effective substitution.



Balancing the benefits of protein content and the risks of trace metal toxicity exposure from skipjack tuna (*Katsuwonus pelamis*) consumption in Sri Lanka

We investigated the benefit of protein content and risk of trace metal toxicity by fish consumer using skipjack Tuna. Skipjack tuna is a good protein source as same as other tuna species such as Yellowfin and Bigeye tuna. It is found that Skipjack tuna does not pose any health risk due to trace metal toxicity by Hg, Cd, Pb and As.



Toxicity effects of trace metals on Zebra fish (*Danio rerio*) Embryo

This work focused on trace metal toxicity of Zebra fish embryo. Hg is highly toxic to *Danio rerio* embryo followed by Cu, Cd, Zn, As and Pb. This study indicates that *Danio rerio* embryo is a potential indicator for trace metal pollution.

Export Agriculture

Antifungal activity of selected medicinal plants against some fungal species on post harvest fruits and vegetables

This research was conducted to determine the antifungal activity of selected medicinal plants against fungal species on post harvest fruits and vegetables.



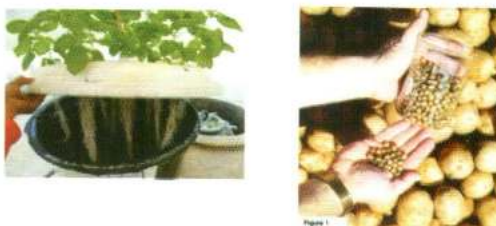
Development of stirred type fruit yoghurt using wood apple (*Limoniaacidissima*)

Under this work, it was attempted to develop a stirred type fruit yoghurt by using ripen wood apple pulp.



Feasibility study for direct planting of *in vitro* Potato (*Solanumtuberosum* L.) varieties Granola and Golden star in aeroponic system

We focused our attention to study the feasibility of direct planting of *in vitro* potato varieties Granola and Golden star in aeroponic system.



Palm & Latex Technology and Value - Addition

Improvement of productivity of soft dough biscuits by regulating temperature and quantity of palm olein

We conducted this study to find out the most suitable palm olein quantity and olein temperature without compromising quality of the soft dough biscuits.



Effect of vulcanizing system and antioxidant system on tensile properties of aged microptic gloves

The study was carried out to investigate the effect of vulcanizing system and antioxidant system on tensile properties of aged microptic gloves.



Optimization of the physical properties of carbon black filled tread compound by replacement of silica

The study was conducted to investigate the possibility to replace the carbon black partially/fully with silica while balancing the desired properties of a tread compound.



Tea Technology and Value Addition

Development of a biscuit enriched with tea “Polyphenols”

The study focused on to investigate better tea polyphenol extraction method, taste, color, consistency and general consumer's acceptance in tea polyphenol enriched biscuit.

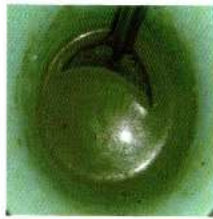


Development of green tea (Matcha) incorporated stirred yoghurt



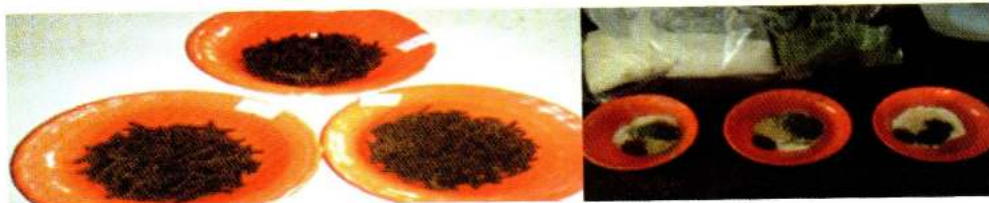
Development of green tea incorporated instant herbal porridge mixture

Main objective of this investigation was to develop green tea incorporated instant herbal porridge mixture. Final product can be commercialized as nutrient rich herbal tea porridge mixture which can be stored under room temperature for more than one month



Development of manioc (Manihot Esculenta) based nutria mix

This study focused on the production of nutria mix from the combination of Manioc flour, soy bean flour, muruga leaves flour and banana blossom flour. Further, this low cost value added nutria mix enriched with high amount of protein, fiber and fat.



Nano filler effect on Poly (ethylene oxide) based gel polymer electrolyte for the Magnesium ion batteries

Poly ethylene oxide based systems are the most studied candidates for Mg ion batteries. However, the ionic conductivity of those electrolytes at ambient temperature is not high enough for most practical applications. The addition of nano sized oxide fillers into the PEO-salt matrix have been regarded as the most promising method to improve the ionic conductivity.



Wireless gesture control vehicle

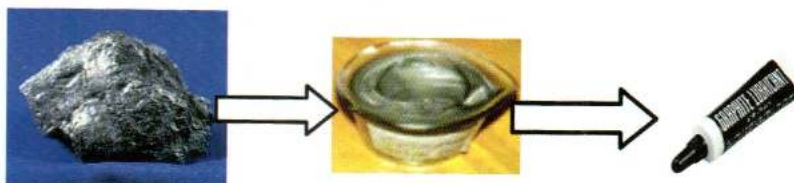
This project hand gestures are used to control a vehicle wirelessly. For that two modules are involved. One is the band and the other one is the vehicle. Band is consisting with gyro meter that gives the coordination according to the hand motion and RF module transmits the data that given by the gyro to the vehicle. The vehicle comprehends the signal sent by the gyro meter and it starts to move itself with respect to the signals that given by the hand gesture using gear motors.



Mineral Resources Technology

Synthesis of electro conductive grease using graphite

Mixing different ratios of graphite and grease optimum mixture was found having maximum conductivity and capacity and this sort of lubricant can be used in grounding static discharges, provides electrical continuity between irregular or pitted surfaces, ensures electrical contact between loose or vibrating parts and small gaps.



Investigation on structural modification of Sri Lankan vein graphite for ion intercalation

In another research Na (Sodium) was intercalated in to GO (graphite oxide) layers. The results show clear evidence for the possibility of intercalating relatively larger but more abundant and low cost ions like Na⁺ ions to GO. Present cost of Li-ion batteries are quite high, this methods will enable the production of low cost batteries in near future.



Groundwater contamination around paddy terraces in Badulla; special focus on nutrients and trace elements mobility

Water science and technology specialization focuses research activities to develop novel water treatment and purifying techniques as well as study of water and environmental pollution/contamination sources, in order to find remedial measures for them.

Firm level entrepreneurship and firm performance: exploring relationships with special reference to the hotel sector

This study assessed the level of entrepreneurial orientation and corporate entrepreneurship of the firms in the hotel industry and identify the relationship between firm level entrepreneurship and firm performance. The finding shows there is a significant positive association between entrepreneurial orientation and corporate entrepreneurship in hotel industry.



An empirical study on consumer attitudes and buying behavior in hotel industry in Sri Lanka: with special reference to fast food restaurants in Colombo city

This study identified the relationship between consumer attitude and buying behavior towards fast food restaurants and ascertained the factors influencing on consumer attitudes and buying behavior towards fast food restaurants. The finding shows that there is a positive strong relationship between consumer attitude and buying behavior.



A study of impact of accounting record keeping practices on financial performance of SMEs-Evidence form Badulla district Sri Lanka

This research identified the relationship between accounting record keeping practices and financial performance of the SMEs and examined the challenges SME owners face in their record keeping in SMEs. The results implied that there is a direct relationship between financial performance and accounting record keeping practices and lack of guidance on accounting practices create a gap of accounting knowledge of SMEs owners.



Expert food analysis system

“Expert Food Analysis System” which is a Diet and Hygiene related Web and Mobile based system. This system can be considered as a combination of three fields as IT, Medicine and Business since it carries values for all the above fields”.

By using this product food consumers can easily achieve the expectation of having a more healthy diet in the current market system. Businesses will be pushed to produce new products and competition among food product for healthiness will be increased.



Security door open system based on password, fingerprint and GSM

In today's age of digital technology and intelligent systems, security locking has become one of the fastest developing application-based technologies in the world. It replaces the traditional security systems which uses key to open door. This project has keyless entry to the door. This project aims at developing a higher security provides to the system by using combination of password, finger print and GSM. Identify the individuals based on password and fingerprint. The request message for opening the door that sends to other authorized persons when the system is identified the authorized person. Save all data in the database that who is open the door and who is accept that request.



Factors influencing on online hotel reservation

At present online hotel reservations are one of the most popular methods for booking hotel rooms. This study examines the behavior and the factors that influence people to make online hotel reservations. It has found that, mainly the younger generation and people who are spending 21 hours or above on internet per week mainly booking through online.



Identifying the potential to develop Nuwara Eliya as a tea tourism destination; demand and supply perspectives

'Tea Tourism' is one of the rapidly growing market segments in Sri Lanka tourism. The main objective of this study is to identify the potentials for developing tea tourism in Nuwara Eliya area. It has found that, destination attributes such as natural landscape, historical value, reputation of Ceylon Tea and the richness of tea plantation and tea gardens are some of the vital factors contribute to the development of tea tourism in Nuwara Eliya.



Identification of potentials to promote gem tourism in Sri Lanka

This study attempts to identify the potentials to promote gem tourism in Sri Lanka. It has found that, majority of potential gem tourists are male belongs to the middle age category and largely represent from countries like China, Thailand, Russia, India. According to the geographical positioning, particularly being a south asian country Sri Lanka is having great potentials to promote the country as a gem tourism destination for travellers.



Keynote Speech

The economic potential of nanotechnology



Nanotechnology can be defined as research and development at the atomic or molecular scale involving the manipulation of manufacturing structures less than 100 nm; it is also an enabling technology bringing into collaboration, ideas in chemistry, physics and biology mixed and blended with engineering and medicine. Scientists and engineers have shown a great interest in nanotechnologies because at sizes below 100 nm, the fundamental chemical or electrical properties of materials can change. For example, silver metal used in jewelry is typically inert, however, at the nanoscale, it becomes chemically more active possessing antibacterial properties. Such useful changes in property have become the catalyst for predictions of a range of fundamental new advances in chemistry and physics over the next 10–50 years, mostly in the domains of new materials, the environment, in medicine and information technology.

Fundamental building blocks of nanotechnology are nanomaterials, which have novel optical, electric or magnetic properties. They are semiconductors, metals, metal oxides, carbon materials and organics. The emerging commercial growth areas in nanotechnology are nanomaterials and nanomaterials processing, nanobiotechnology, software, nanophotonics, nanoelectronics and nanoinstrumentation. Nanomaterials and nanomaterials processing companies develop the materials and methods to manipulate and manufacture products based on nano materials.

Globally, nanotechnology is projected to have applications in many sectors. It has been incorporated into tyres, toothpaste, sun cream, tennis rackets, shirts, trousers, CD players etc. It makes day today consumer goods such as smaller, lighter, faster and cheaper.

Currently, nanocomposites which are used in packaging, food, drinks, electronics and pharmaceuticals have about a 5 billion (USD) global market; nanofibers used in electronics, aerospace, energy and medical areas is about 1 billion (USD); carbon nanotubes used in electronics, energy and medicine is around 1.3 billion (USD); quantum dots which have applications in solar cells, biological labelling has a global market of 1 billion (USD); nanocoatings used in thin films, engineered surfaces applied across electronics and chemical engineering applications is about 10 billion (USD); and nanoparticles such as metal oxides – silica, alumina, titania, iron oxide etc. is about 12 billion (USD).

Keynote Speech Continue



Like any technology, nanotechnology's advances will depend on available venture capital funding. Risk debates related to possible dangers of nanoparticles which emerged around 2000, still remain in the public domain. Life cycle analysis of nanomaterials is essential as research is progressing.

Prof. Veranja Karunaratne

Associate Director/Research & Strategic Relations

Sri Lanka Institute of Nanotechnology (Pvt) Ltd.

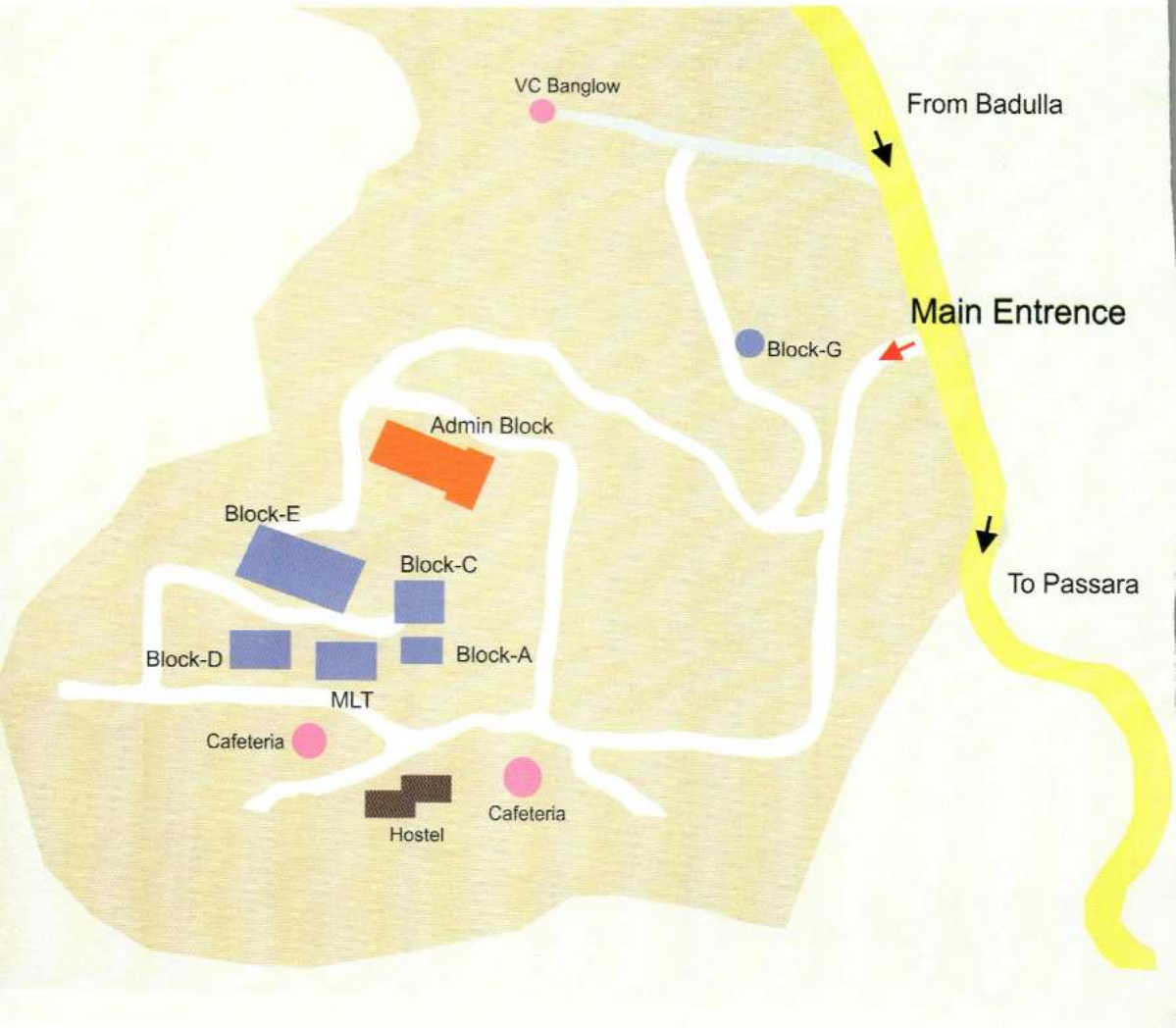
Nano Technology & Science Park

Mahenwatte, Pitipana

Homagama

Sri Lanka

Symposium Map





Technical Sessions

Venue: E2 Lecture Theatre

Day 01: January 29, 2015

Chairperson

Prof. Pradeepa Silva

Professor/ Department of Animal Science
Faculty of Agriculture
University of Peradeniya
Peradeniya

Panel Members

Dr. Janak K. Vidanarachchi

Senior Lecturer/ Department of Animal Science
Faculty of Agriculture
University of Peradeniya
Peradeniya

Dr. Dinesh D. Jayasena

Head/ Department of Animal Science
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
Badulla

Mr. Ujith De Silva

Head-QC/Research & Development
Ceylon Cold Stores PLC
Samadaragahawatte
Ranala

Coordinator

Ms. Maheshika S. Kurukulasuriya

Animal Science Contd.



- 11.00 a.m. Effect of different aerobic and anoxic time periods on the effluent water quality of a sequence batch reactor in a meat processing plant
K.P.W. Kahandawa, A.M.N.L. Abesinghe and T.K. Dissanayake
- 11.20 a.m. Development of avocado (*Persea americana*) incorporated set yoghurt
W.M.A.A. Kulasinghe, A.M.N.L. Abesinghe, A.M. Samaraweera and L.K.A. Gunawardhana
- 11.40 a.m. Production characteristics and technical efficiency of buffalo farmers in Thanamalwila veterinary division
M.B.J.G.R. Malcolm, A.M. Samaraweera and R.M.S.D. Rathnayake
- 12.00 noon Development of drinking yoghurt by incorporating corn (*Zea mays*) milk and corn seeds
R.I.W. Mendis, A.M.N.L. Abesinghe, A.M. Samaraweera and L.K.A. Gunawardhana
- 12.20 p.m. Effect of tropical forages on growth performance and carcass quality of rabbits
F.S. Mohamed and E.D.N.S. Abeyrathne
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. Diversity and antibiotic resistance patterns of *Lactobacillus* species in traditional curd in Sri Lanka
T. Paranagama, C.P. Kodikara and G.D.D.K. Gunasena
- 02.20 p.m. A preliminary study on milk Urea Nitrogen values of the Ambewela farm
K.K.T.N. Ranaweera, Maheshika S. Kurukulasuriya, A.M. Samaraweera, N. Priyankarage and U.L.P. Mangalika

Animal Science Contd.

- 02.40 p.m. Comparison of broiler chicks performance in single stage incubation and multi stage incubation
H.W.P. Samarawickrama, R.M.H. Tharangani and G.A.S.N. Gamlath
- 03.00 p.m. Potential to use *Lawsonia inermis* (marathondhi) leaves and *Emblica officinalis* (nelli) fruit extracts as tannin agents for leather manufacturing
S.M.D.S.C. Senaratne, A.M. Samaraweera and W. Wickramasingha
- 03.20 p.m. Comparison of broiler chick performance in single stage incubation and multi stage incubation
S. Abiramy, R.M.H. Tharangani and Chandana Semage

Poster Presentation

- Development of a probiotic, fermented milk beverage by incorporating finger millet (*Eleusine coracana*)
H.K.T. Awanthika, A.M.N.L. Abesinghe and U. De Silva
- Development of soursop pulp (*Annona muricata*) incorporated fermented sweet cream buttermilk beverage
K. Buddhadasa, A.M.N.L. Abesinghe and R.A.J.N. Luxman
- Development of banana (*Musa spp.*) puree incorporated Synbiotic stirred yoghurt
G.H. Nanayakkara, A.M.N.L. Abesinghe and U. De Silva
- Quail egg consumption: Patterns, preferences and perceptions among consumers in Galle district, Sri Lanka
H.M.W.N. Abeyrathna

Day 02: January 30, 2015

- 09.00 a.m. **Keynote Address by Prof. Pradeepa Silva**
 "Sustaining sustainable development with livestock"
- 09.30 a.m. Development of fishmeal from knifefish (*Chitala ornate*)
 S.P.Wanniarachchi, N.P.P. Liyanage and E.D.M. Epasinghe
- 09.50 a.m. A study on microbial contaminations, sources and preventive
 measures in salted butter production in a commercial dairy plant
 T.D.G. Wickramanayaka and E.D.N.S. Abeyrathne
- 10.10 a.m. A Study on crocodile behavior (*Crocodylus palustris*) and public
 value orientation in Ethimale of Monaragala district
 W.G.R.I. Wijethilaka, A.M. Samaraweera and A.M.N.L.
 Abesinghe
- 10.30 a.m. Development of tomato (*Solanum lycopersicum*) incorporated fish
 nuggets
 R.W.M.E.D. Perera, E.D.N.S. Abeyrathne and N. Lalantha
- 10.50 a.m. Tea
- 11.10 a.m. Analysis of consumer food safety knowledge and practices in
 Rathnapura
 G.D.H.P. Dharmasiri, P. Sivashankar, I.C. Hettiarachchi and R.P.
 Mahaliyanaarachchi
- 11.30 a.m. A study on shelf life of export oriented fresh chilled Yellowfin tuna
 loins in relation to histamine content
 T.R. Kapugama Arachchige, S.C. Jayamanne and K.
 Amarasinghe

Technical Session - Aquatic Resources Technology

Venue: GIS Laboratory

Day 01: January 29, 2015

Chairperson

Dr. S.C. Jayamanne

Dean/ Faculty of Animal Science and Export Agriculture
Uva Wellassa University
Badulla

Panel Members

Prof. Deepthi Yakandawala

Senior Lecturer/ Department of Botany
Faculty of Science
University of Peradeniya
Peradeniya

Dr. Kalum Wijenayake

Senior Lecturer/ Department of Aquaculture & Fisheries
Faculty of Livestock, Fisheries & Nutrition
Wayamba University of Sri Lanka
Makandura

Dr. M. A. Jagath P. Munasinghe

Head/ Department of Livestock Production
Faculty of Agricultural Sciences
Sabaragamuwa University of Sri Lanka
Belihuloya

Coordinators Ms. R.M.G.N. Rajapaksha and Ms. T.H. Ranaheewa

- 11.00 a.m. Determination of a suitable growing medium and a commercial fertilizer for *Echinodorus parviflorus* 'tropica' in the nursery level
K. Amarakoonge, B.V.A.S.M. Bambaranda and S.C. Jayamanne
- 11.20 a.m. Development of a suitable culture media for mass culture of *Moina macrocopa*
G.N.M. De Silva, S.C. Jayamanne and W.P.R. Chandrarathna
- 11.40 a.m. Evaluation of attitude and awareness of the international resolution on responsible fishing: A case study on the multiday fishermen of Matara
K.L.N. Dilini, I.U. Wickramaratne, N.P.P. Liyanage and N.D.P. Gunawardane

Aquatic Resources Technology Contd.



- 12.00 noon Toxicity effects of trace metals on Zebra fish (*Danio rerio*) embryo
M.F.A. Fasmina, S.C. Jayamanne, N.P.P. Liyanage and D.P.N. De Silva
- 12.20 p.m. Development of micropropagation protocols for two *Aponogeton* species of Sri Lanka (*Aponogeton crispus* and *Aponogeton natans*)
T.W.G.J.C. Amarawansa, B.V.A.S.M. Bambaranda, S.C. Jayamanne and H.M.I Herath
- 12.40 p.m. Consumption pattern of fish among households in Batticaloa district
S. Komahan and P.Sivarajah
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. Isolation and incorporation of Nitrogenous compounds from yellow fin Tuna (*Thunnus albacares*) to produce a fish flavored vegetable burger
P. D. A. Jeewantha and E.D.N.S. Abeyrathne
- 02.20 p.m. Induced breeding of Silver Dollar (*Metynnis hypsauchen*) using ovaprim
K.A.J.L. Kodisinghe, S.C. Jayamanne and A.H.M.S.S.K. Abeysinghe
- 02.40 p.m. A comparative study on the effectiveness of gillnet and longline fishing methods used by multiday fishermen in Matara fisheries district
M.I. Jathunga, I.U. Wickramaratne and N.P.P. Liyanage
- 03.00 p.m. A review of export trade of indigenous aquatic plants species in Sri Lanka and their conservation issues
R.D.C Bandaranayake, B.V.A.M.S. Bambaranda and S.C. Jayamanne
- 03.20 p.m. Development of garment leather from Yellowfin Tuna (*Thunnus albacares*) skin
E.M.B.S. Eakanayake, S.C. Jayamanne and W. Wickramasinghe

Poster Presentation

- Analyze the Histamine level in various position of the Histamine developed Tuna fish
K.S.H. Kalubowila, N.P.P. Liyanage and A. Perera
- A Geographic Information System (GIS) approach in identification of the potential reservoirs for Giant Fresh Water Prawn (*Macrobrachium rosenbergii*) culture: A case study in Moneragala district, Sri Lanka
R.A.C. Nisansala and R.M.C.W.M. Rathnayake

Day 02: January 30, 2015

- 09.00 a.m. **Keynote Address by** Dr. P.B. Terney Pradeep Kumara
“*Marine Biodiversity & Conservation of Marine Resources*”
- 09.30 a.m. Balancing the benefits of protein content and the risks of trace metal toxicity exposure from Skipjack tuna (*Katsuwonus pelamis*) consumption in Sri Lanka
A.S. Mahaliyana, N.P.P. Liyanage, S.C. Jayamanne and B.K.K.K. Jinadasa
- 09.50 a.m. Study of water quality changes and growth of cultured edible oysters (*Crassostrea madrasensis*), culture sites at Gagewadiya and Kandakuliya in Puttlam district
H.T Wijayanandana, N.P.P Liyanage, H.M.P. Kithsiri, S. Cotea, G.R.H. Rupika, U. Fernando and T.Dejager
- 10.10 a.m. Seashell processing: An emerging industry in Kinniya divisional secretariat division of Trincomalee district
A. H. Sajitha and T. Geretharan
- 10.50 a.m. Tea
- 11.10 a.m. Effect of growth regulators on in-vitro multiplication of selected *Lagenandra ovata* and *Lagenandra lancifolia*
W. M. A. Senavirathne, B. V. A. S. M. Bambaranda, S.C. Jayamanne and S. A. Krishnarajah
- 11.30 a.m. A preliminary study on the effectiveness of organic fertilizers for the survival rate of *Catla catla*
K.G.M. Prabhani, N.P.P. Liyanage and K.M.D.M. Somarathna
- 11.50 a.m. Bioassay on the effectiveness of chemical hydrolyzation for denaturing agrochemical contaminated wastewater
G.M.G.M.M. Wickrama, R.M.G .N Rajapakshae , N.P.P Liyanage and W.R.K Fonseka
- 12.10 p.m. Preliminary study on Mangrove diversity in Irakkandy lagoon, Trincomalee
K. Krishnanantham, S.C. Jayamanne, and Y. B. M.C. J. Seneviratne

Venue: Main Lecture Theatre

Day 01: January 29, 2015

Chairperson

Dr. Nimal Dissanayake
Additional Director
Rice Research Institute
Batalegoda
Ibbagamuwa

Panel Members

Dr H.M.P.A. Subasinghe
Deputy Director/ Central Research Station
Department of Export Agriculture
Matale

Dr. L.D.B. Suriyagoda
Senior Lecturer/ Department of Crop Science
Faculty of Agriculture
University of Peradeniya
Peradeniya

Dr. L.M.H.R. Alwis
Head/ Department of Export Agriculture
Uva Wellassa University
Badulla

Coordinator

Ms. H.A.S.L Jayasinghe

11.00 a.m. *In vitro* antifungal activity of selected medicinal plants extracts against selected postharvest pathogens in fruits and vegetables
S.P.R.R. Samarasinghe, A.G.A.W. Alakolanga, W.A.R.T Wickramaarachchi, N.S Kumar and U.L B. Jayasinghe

11.20 a.m. Technical efficiency of Mirahawatte Organic Tea Smallholders: A Stochastic Frontier Approach
K.R.S. Chathurangi and R.M.S.D. Rathnayaka

Export Agriculture Contd.



- 11.40 a.m. Assessment of oil yield and oil quality in cinnamon (*Cinnamomum zeylanicum* Blume) leaves under different severity levels of two types of leaf galls (*Trioza cinnamomi*, *Eriophyes boisi*)
N.P. Daladawatta, G.G. Jayasinghe, G. Chandrasena and A.N.R. Weerawansa
- 12.00 noon Development of Low Glycemic Index Bread using a Composite Flour Mixture
K.W. Thilakarathna, W.A.J.P. Wijesinghe and K.H. Sarananda
- 12.20 p.m. Development of a Protocol for *In Vitro* Propagation of Black Pepper (*Piper nigrum* L.) Local Selections
S.G.H.C.K. Dissanayake, L.M.H.R. Alwis, H.A.S.L. Jayasinghe, A.M.C.I.M. Attanayake and J.M. Seneviratne
- 12.40 p.m. Analysis of technical efficiency of pepper growers in Kandy district
J.K.S. Jayalath, R.M.S.D. Rathnayake and M.A.P.K. Seneviratne
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. Feasibility Study for Direct Planting of *in Vitro* Potato (*Solanum Tuberosum* L.) Varieties Granola and Golden Star in Aeroponic System
A.P. Wijesinghe, L.M.H.R. Alwis, H.A.S.L. Jayasinghe and M.M. Nugaliyadda
- 02.20 p.m. Labour migration and paddy production; A comparative analysis
H.M.M.K. Haluwana and R.A.P.I. S. Dharmadasa
- 02.40 p.m. Effect of nitrogen fertilization on nitrate accumulation in Radish (*Raphanussativus*) and Beetroot (*Beta vulgaris*)
W.G.S. Lakmali, H.M.S.K. Herath and N.R.N. Silva

Export Agriculture Contd.

- 03.00 p.m. Development of Stirred Type Fruit Yoghurt Using Wood Apple (*Limonia acidissima*)
N.G.A.S Nanayakkara, W.A.J.P. Wijesinghe and D.N. Hettiarachchi
- 03.20 p.m. Investigating the factors that influenced the excess use of pesticides by the vegetable farmers in Badulla and Nuwara-Eliya districts
M.T.D.C. Perera and M.G.P.P. Mahindaratne
- 03.40 p.m. Mapping the Soil Chemical Properties and Leaf Quality on Quality Tobacco Production in Sri Lanka: A GIS Approach
H.C. Marasinghe, R.M.C.W.M. Rathnayake and N.N.R. Abevsekara

Poster Presentation

- Determination of microbial quality & quantity of stored cinnamon quills at different moisture levels
S.M. Pathirana, G.G. Jayasinghe, A.N.R. Weerawansa and G. Chandrasena
- Development of ready to serve drink from Gotukola (*Centella asiatica*)
G.G.N.T. Ariyasinghe, W.A.J.P. Wijesinghe and D. N. Hettiarachchi
- Satisfaction of Low-Country Vegetable Farmers about the Agricultural Extension Service in Sri Lanka
L.K.C.K. Gunasekara and M.G.P.P. Mahindaratna
- Nitrogen and potassium fertilizer response on growth and yield of hybrid Luffa (*Luffa acutangula*) Naga F1 variety
D.R.T.N.K. Dissanayake, H.M.S.K. Herath, H.K.S.G. Gunadasa and P. Weerasinghe
- A Study on patterns of fresh fruit consumption of Households in Kurunagala
A.M.P. Abeyasinghe, I.C. Hettiarachi, P. Sivashankar and R.P. Mahaliyanarachchi
- Farmers' perception on cultivating herbal plants as an agribusiness venture: A study at Pambahinna Agrarian Services Division
T.M. Liyanagamage, I.C. Hettiarachi, P. Sivashankar and R.P. Mahaliyanarachchi

Day 02: January 30, 2015

- 09.00 a.m. **Keynote Address by Dr. Nimal Dissanayake**
"How to cater agricultural research in needs of agricultural industry"
- 09.30 a.m. Willingness to adopt chemical leasing service by vegetable farming in Nuwera Eliya district, Sri Lanka
K.M.C. Nishaya and M.G.P.P. Mahindaratne
- 09.50 a.m. Analysis of combining ability and heterosis in tomato (*Solanumlycopersicum*) using Full Diallel Cross
R.G.Y.H. Jayarathna, L.M.H.R. Alwis, H. Fonseka and H.M.V.T. Welegama
- 10.10 a.m. Preservation of tomato (*Lycopersicon esculentum*) by dehydration for product development and utilization
T.M.A.N. Weerasinghe, W.A.J.P. Wijesinghe and K.H. Sarananda
- 10.30 a.m. Study on the factors effect on the integrity and sealing of flexible packaging
M.M.D.A. Abeyasinghe, W.A. J.P. Wijesinghe, A. Senarathne and A.N.R. Weerawansa
- 10.50 a.m. Tea
- 11.10 a.m. Study on response of rice varieties to different nitrogen fertilizer Levels
H.V.C. Priyadarshanee, L.M.H.R. Alwis and D.N. Sirisena
- 11.30 a.m. Selection of an effective Bio-filmed Bio-fertilizer formulation and best Potting medium for Anthurium (*Anthurium Andraeanum*)
R.M.D.C. Rathnayake, H.K.S.G. Gunadasa, H.A.S.L Jayasinghe and K.A.C.N. Seneviratne
- 11.50 a.m. Studying the effects of Mealybug (*Paracoccus marginatus*) attack on forming of Indian Marigold Flower (Tagets spp.)
P.C.D. Perera and Nilanthi Dahanayake
- 12.10 p.m. Consumer preference for quality attributes of rice
W.G.D.L.C. Wijesinghe, B.R. Walisinghe and R.A.P.I.S. Dharmadasa



Technical Session - Palm and Latex Technology and Value Addition

Venue: A1 Lecture Theatre

Day 01: January 29, 2015

Chairperson

Dr. V.H.L.Rodrigo
Additional Director
Rubber Research Institute
Dartonfields
Agalawatta

Panel Members

Dr. H. D. D. Bandupriya
Senior Research Officer
Tissue Culture Division
Coconut Research Institute
Bandirippuwa Estate
Lunuwila

Dr. H.M.S.K. Herath
Senior Lecturer/ Department of Export Agriculture
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
Badulla

Coordinator

Ms. H.K.S.G. Gunadasa

Palm and Latex Technology and Value

Addition Contd.



- 11.00 a.m. Effect of vulcanizing and antioxidant systems on aged tensile properties of MicrOptic Gloves
E.A.S.L Ekanayake, N.S Withanage and P.A.P.N. Jayabodhi
- 11.20 a.m. Property variation of centrifuged latex at different maturity stages in glove manufacturing
I.D.H.C. Iddamalgoda, N.S. Withanage, A.P. Atthanayaka, P.H.S. Kumara and N.R. Weerawansa
- 11.40 a.m. Effect of different types of fillers on properties of natural rubber latex foam
G.T Karunarathna, N. S. Withanage and D.G. Edirisinghe
- 12.00 noon. Factors affecting farmers' willingness to pay for *Jatropha* Biodiesel
P. Sivashankar, J. Weerahewa, D.K.N.G. Pushpakumara, L.W. Galagedara
- 12.20 p.m. Youth perception to undertake the management of small scale rubber plantations
P.H.J. Patabendi and G.M.P.P. Mahindarathna
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. Influence of socio economic factors on acceptance of genetically modified foods
Y.A.P.K. Dayasena, P. Sivashankar, and I.C. Hettiarachchi
- 02.20 p.m. Visco-Elastic properties of OMMT filled fractioned Bleached Crepe Rubber
H.G.I.M. Wijesinghe, U.N. Ratnayake, A. Alakolanga and N.S. Withanage
- 02.40 p.m. Effect of canopus 100 processing oil on the blooming effect of solid tyres
N.N.H.A.R. Lathika, S.M.I.P.G Bandara and G. Chandrasena

Palm and Latex Technology and Value Addition Contd.

Poster Presentations

- Study of later separation time duration of coconut milk in storage tanks during coconut milk powder production
K. D. M. L Ranasinghe, W. A. J. P. Wijesinghe, L.L.W.C. Yalegama and K.J. Gamage
- Performance of coconut kernel residue oil as processing oil in carbon black filled natural rubber composites
M. G. L. Samarakoon, N. S. Withanage and S. Siriwaradena

Palm and Latex Technology and Value Addition Contd.



Day 02: January 30, 2015

- 09.00 a.m. **Keynote Address by Dr. Namal Dissanayake**
"How to cater agricultural research in needs of agricultural industry"
- 09.30 a.m. Improve the productivity of the soft dough biscuits by regulating the temperature and the quantity of the Palm olein.
K.W.A. Bandara, W.A.J.P. Wijesinghe and J.M.S.C. Samarasinghe
- 09.50 a.m. Development of activated carbon included natural rubber latex pillow
B.A.D.U.P. Bulathsinghala, U.H.T.P. Samaraweera and N.S. Withanage
- 10.10 a.m. Effect of palmyrahCoir dust on physicochemical properties of potting media and on growth and yield of chilli
S. Puthisigamani, A.M. Nilushiny, S. Sri Vijeindran, H.A.S.L Jayasinghe and H. K. S. G. Gunadasa
- 10.30 a.m. Effect of graphite derivatives on mechanical and functional properties of nitrile rubber nanocomposite
P. C. Rajapaksha, U.N.Rathnayake, A. Alakolanga and N.R. Weerawansha
- 10.50 a.m. **Tea**
- 11.10 a.m. Optimization the physical properties of carbon black filled tread compound by replacement with silica
W.P.M.D.A Perera, A.G.A.W Alakolanga, A.N.R Weerawansha and S. Kularathna
- 11.30 a.m. Studies on copra drying for white coconut oil production
N. K. W. Wijedasa, G. Chandrasena, Ms. S. M. I. P. G. Bandara and S. Silva

Technical Session - Tea Technology and Value Addition

Venue: A2 Lecture Theater

Day 01: January 29, 2015

Chairperson

Prof. L.H.J. Weerahewa

Professor/Department of Agricultural Economics and
Business Management
Faculty of Agriculture
University of Peradeniya
Peradeniya

Panel Members

Dr. K.M. Mevan

Senior Research officer
Biochemistry Division
Tea Research Institute
Thalawakele

Dr. R.M. Dharmadasa

Senior Research Officer
Natural Product Division
Industrial Technology Institute
No 363, Baudhaloka Mawatha
Colombo 7

Dr. K.G. Premathilake

Senior Lecturer/ Department of Export Agriculture
Uva Wellassa University
Badulla

Coordinator

Ms. R.M.S.D. Rathnayake and Ms. A.G.A.W. Alakolanga

- 11.00 a.m. Impact of good agricultural practices on technical efficiency
of Tea small holders
T.B.Y.A. De Silva and R. M. S. D. Rathnayaka
- 11.20 a.m. Factors affecting on tourists' buying behaviour of Ceylon
Tea
M.N.C. Mudhannayake and M. G. P. P. Mahindaratne
- 11.40 a.m. Determinants of poverty in Tea estate workers in Nuwara
Eliya district
K.M.D.L. Wijerathne, H. W. Shyamalie, B. M. N. C.
Karunarathna, H. M. C. G. Pilapitiya and
R. A. P. I. S. Dharmadasa

Tea Technology and Value Addition

Contd.



- 12.00 noon. Remittance and investment of Tea small holders in Uva region
W.C.S. Wijayalathge and R.A.P.I.S. Dharmadasa
- 12.20 p.m. Awareness and adoption of recommended technologies and management practices by the Tea small holders
W.A.B.S. Karunarathna and M. G. P. P. Mahindaratne
- 12.40 p.m. Analysis of factors affecting for Tea buyers' level of trust on Tea brokers
L.P. Rathnayaka, R. M. S. D.Rathnayaka and D.Wedande
- 01.00 p.m. - 02.00 p.m. **Lunch**
- 02.00 p.m. Development of Green Tea incorporated Ayurvedic toothpaste
D. N. C. Ranasinghe, A.G.A.W. Alakolanga and M.P.M. Arachchi
- 02.20 p.m. Effect of Black Tea adulteration on quality parameters of Black Tea **N.L.V.N. Priyadharshana**, H.M.S.K. Herath and M.A.N. Jayathilake
- 02.40 p.m. Effect of thermal time on shoot growth and development of low grown Tea [*Camellia sinensis* (L.) O. Kuntze] in Sri Lanka
P. K. M. Prasadinie, H.A.S.L. Jayasinghe and M.A. Wijeratne
- 03.00 p.m. Investigating the causes for poor control of *Crassocephalum crepidioides* (Thandam pillu) weed by Glyphosate in the Uva region
A.G.S. Priyani and K.G. Prematilake
- 03.20 p.m. Development of Tea Incorporated Jackfruit Cordial
A.G.C. Dulanjalee and W.A.J.P. Wijesinghe
- 03.40 p.m. Factors affecting the level of effectiveness of dryers used in Sri Lanka tea manufacturing
W.K.T. Ruwanka, N.S. Withanage and A.N.K. Weerawansa

Poster Presentation

- Clientele Satisfaction towards the Services Rendered by Government to the Tea Small Holding Sector
H.A.C.M. Hangawatta and M.G.P.P. Mahindaratne
- Determinants of Income Diversification in Tea Estates Households, Badulla District
M. K. Hewavitharana, R. A. P. I. S. Dharmadasa, I.M.R.L.K. Ilankoon and S.U. Senevirathne
- Firewood Energy Utilization in Different Dryers used in Tea Processing
N.H.K.Chathurangi, N.S. Withanage, A. N. R. Weerawansa and M.M.R. Pathmasiri
- Protocol for callus induction of *Camellia japonica* L. (Tea rose)
H.L.T. Dilrukshika and L.M.H.R. Alwis
- Distribution and accumulation of selected heavy metals in Tea plants
W. W. A. S. N. Fernando and A.G.A.W. Alakolanga

Day 02: January 30, 2015

Chairperson

Dr. Kumudini Gunasekara

Project Scientist
COSSTI
Colombo

Panel Members

Dr. R.M. Dharmadasa

Senior Research Officer
Natural Product Division
Industrial Technology Institute
No 363, Bauddhaloka Mawatha
Colombo 7

Dr. K.G. Premathilake

Senior Lecturer/ Department of Export Agriculture
Uva Wellassa University
Badulla

Tea Technology and Value Addition

Contd.



Dr. W.A.J.P. Wijesinghe
Senior Lecturer/ Department of Export Agriculture
Uva Wellassa University
Badulla

Coordinator **Ms. R.M.S.D. Rathnayake and Ms. A.G.A.W. Alakolanga**

- 09.00 a.m. **Keynote Address by Dr. Nimal Dissanayake**
- 09.30 a.m. Effect of Tea bag materials on physical and chemical quality parameters of Black Tea during storage
P.C.S. Pathirana, A.G.A.W. Alakolanga and U.D.A.T. Premathilake
- 09.50 a.m. Development of a biscuit Enriched with Tea polyphenols
K. Parthippan, W. A. J. P Wijesinghe, M.P.M. Arachchi and G. Deivanayagam
- 10.10 a.m. Development of Black Tea incorporated Tomato sauce
D.W.N.G. Bandara, W.A.J.P. Wijesinghe, U.G.A.T. Premathilake and B. Balamurali
- 10.30 a.m. Development of Green Tea Incorporated Instant Herbal Porridge Mixture **M.A.U.P. Munasinghe**, W.A.J.P. Wijesinghe and P. U. S. Pieris
- 10.50 a.m. Tea
- 11.10 a.m. Effect of Dolomite application on available phosphorus status in Tea Soils **S. Kavitha**, K. Prapagar and G.P. Gunarathne
- 11.30 a.m. Determinants of absenteeism in tea plantation workers (Case study in selected tea estate in Badulla)
R. M. P. S Rathnayake and R. A. P. I. S Dharmadasa

Technical Session - Entrepreneurship and Management

Day 01: January 29, 2015

Venue: C2 Lecture Theatre

Chairperson

Prof. H.S.C. Perera
Dean/ Faculty of Management & Finance
University of Ruhuna
Matara

Panel Members

Dr. T.S.L.W. Gunawardana
Senior Lecturer/ Department of Marketing
Faculty of Management & Finance
University of Ruhuna
Matara

Dr. K.A.S. Dammika
Head/ Department of Human Resource Management
Faculty of Commerce and Management Studies
University of Kelaniya
Kelaniya

Dr. P.I.N. Fernando
Dean/ Faculty of Management
Uva Wellassa University
Badulla

Coordinators

Ms. W.M.P.G.C. Weerakoon and Ms. S.F. Fasana

- 11.00 a.m. Financial usage and money management: Study based on undergraduates in Social Sciences Stream
N.M.A. Jayasinghe
- 11.20 a.m. Study of HR practices and its' impact on labour productivity: Katunayake export processing zone apparel industry
J.A.S.M. Jayakody and J. Siyambalapatiya
- 11.40 a.m. Stock market – growth nexuses: An application of dynamic panel data analysis for developed and emerging markets
N.P.R. Deyshappriya

Entrepreneurship and Management Contd.



- 12.00 noon A study of impact of accounting record keeping practices on financial performance of SMEs-evidence from Badulla district Sri Lanka
K.E. Ubesiri and Y.M.C. Gunaratne
- 12.20 p.m. An empirical study on adjustment of stock prices to information implicit in stock splits: evidence from Colombo stock exchange
K.V. Aruna Shantha
- 12.40 p.m. Relationship of job satisfaction and organizational commitment: A field study of insurance
B.V.G. Mendis and S.F. Fasana
- 01.00 p.m. -02.00 p.m. Lunch
- 02.00 p.m. Keynote Address by **Dr. O.G. Dayarathne**
"Shifting towards innovation driven economic growth in Sri Lanka"
- 02.30 p.m. Bolster entrepreneurial attitudes and intention among post-graduates in India
P. Pretheeba and R. Ponnmani
- 02.50 p.m. Impact of credit risk management on financial performance: With special reference to Sri Lankan banking sector
A.G.D. Krishanthi and K.M.M.C.B. Kulathunga
- 03.10 p.m. Policy holder perception on customer orientation of insurance agent and customer loyalty: Life insurance companies in Anuradhpura district
W.M.N.M. Warnakulasooriya and J. Siyambalapitiya
- 03.30 p.m. Impact of job satisfaction on organizational citizenship behavior: Special reference to licensed commercial banks in Colombo district
R.M.D.M.Rathnayake and S.F. Fasana
- 03.50 p.m. Impact of financial leverage on firm performance: With special reference to manufacturing sector in Sri Lanka
T.G.A.H.C. Amarawansa and K.M.M.C.B. Kulathunga
- 4.30 p.m. The performance appraisals system and its' impacts on employee motivation: A study with special reference to Sri Lankan licensed commercial banks in Kandy district
A.M.K.G.M.D Abeykoon and J. Siyambalapitiya
- 4.50 p.m. Determinants of SME financing: With special reference to SMEs in Badulla district
H.M.D. Herath and K.M.M.C.B. Kulathunga

Technical Session - Hospitality, Tourism and Events Management

Venue: C3 Lecture Theater

Day 01: January 29, 2015

Chairperson

Dr. Iraj Ratnayake

Senior Lecturer/ Department of Tourism Management
Faculty of Management Studies
Sabaragamuwa University of Sri Lanka
Belihuloya

Panel Members

Dr. W.K. Athula Gnanapala

Head/ Department of Tourism Management
Faculty of Management Studies
Sabaragamuwa University of Sri Lanka
Belihuloya

Mr. T.M.P.S.I. Tennakoon

Senior Lecturer/ Department of Public Administration
Faculty of Management
Uva Wellassa University
Badulla

Dr. P.H.T. Kumara

Lecturer/ Department of Public Administration
Faculty of Management
Uva Wellassa University
Badulla

Coordinator

Ms. D.A.K.A. Damunupola

- 11.00 a.m. Development through international events: a case study on commonwealth heads of government meeting (CHOGM) in Sri Lanka, 2013
W.M.K.C. Wijayabahu and Namal de Silva
- 11.20 a.m. The effects of motivation, satisfaction and revisit intention of tourists on ayurvedic tourist hotels (with special reference to Galle district)
Dilhani H.A.A and J.P.R.C.Ranasinghe
- 11.40 a.m. Influence of sustainable development in foreign policy creation: Realist framework
K.M.S.M. Kodithuwakku and K.P.P.U. Jayawardena

Hospitality, Tourism and Events Management Contd.



- 12.00 noon Identifying the potentials to develop NuwaraEliya as a tea tourism destination: Demand and supply perspectives
M.J.R.S. Fernando and J.P.R.C.Ranasinghe
- 12.20 p.m. A study on the tourist attractions in Colombo city
G.B.I. Weerasingha
- 12.40 p.m. The impact of service quality dimensions towards customer satisfaction: A study with special reference to five star hotels in Sri Lanka
K.A.P.G. Weerasinghe and P.I.N. Fernando
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. Keynote Address by **Mr. Srilal Mittapala**
“A new dawn towards sustainable tourism development in Sri Lanka”
- 02.30 p.m. Identifying potentials to promote gem tourism in Sri Lanka (with special reference to Rathnapura, Colombo and Kandy areas)
M.M.Ariyaratne and P.I.N. Fernando
- 02.50 p.m. An empirical study on consumer attitudes and buying behavior in hotel industry in Sri Lanka: With special reference to fast food restaurants in Colombo city
A.M. Shifana and P.I.N. Fernando
- 03.10 p.m. Push factors effect on voluntary external labour turnover intention in apparel industry: With special reference to Katunayaka export processing zone
W.P.G.R.N. Jayasinghe and J. Siyambalapitiya
- 03.30 p.m. Firm level entrepreneurship and firm performance: Exploring relationships with special reference to the hotel sector
S.D. Katugampala and W.M.P.G.C. Weerakoon
- 03.50 p.m. Factors affecting to neglect formal financing sources by the SMEs; with special reference to Badulla district
T.A.O.S. Karunarathna and P.I.N. Fernando
- 04.10 p.m. Consumer awareness on sustainable apparel product consumption
H.R.A.T. Ranaweera and K.V.K.D Wasala

Poster Presentation

Analyzing the factors influencing on online hotel reservation (with special reference to Galle district in Sri Lanka)
E.M.S.D. Edirimanna and D.A.K.A. Damunupola

Technical Session - Computer Science and Technology and Industrial Information Technology

Venue: D-Block Computer Lab

Day 01: January 29, 2015

Chairperson

Dr. Roshan G. Ragel

Senior Lecturer/ Department of Computer Engineering
Faculty of Engineering
University of Peradeniya
Peradeniya

Panel Members

Dr. S. Radhakrishnan

Department of Computer Engineering,
Faculty of Engineering
University of Peradeniya
Peradeniya

Ms. G. S. Makalanda

Senior Lecturer/ Department of Computer Science
University of Sri Jayawardanapura
Nugegoda

Dr. Sisira Ediriweera

Head/ Department of Computer Science & Technology
Uva Wellassa University
Badulla

Coordinator

Ms. H.M.U.S.K. Herath &

Mr. D.R.V.L.B Thambawita

- 11.00 a.m. A graph theoretic approach to control the traffic congestion on road network
I.M.L.N. Jayaweera and K.K.K.R. Perera
- 11.20 a.m. Android mobile driving assistant for highway drivers
P.A.A. Ilshini and D.R.V.L.B. Thambawita

Computer Science and Technology and Industrial Information Technology Contd.



- 11.40 a.m. Blood bank management system
E.M.S.S. Ekanayaka and C. Wimaladharm
- 12.00 noon Classification of virtual learning environment
N. Pratheesh
- 12.20 p.m. Expert food analysis system
S.M.U.C.Seneviratne and D.R.V.L.B.Thambawita
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. **Keynote Address by Dr. Roshan G. Ragel**
"Side Channel Attacks in Embedded Systems"
- 02.30 p.m. Modification of information gain measure to select the best group of attributes in a data set for a binary decision tree inducer
N.S. Rathnayaka and J. K. Wijerathna
- 02.50 p.m. Security door open system based on password, fingerprint and GSM
GulaniKanthasamy and H.M.U.S.K. Herath
- 03.10 p.m. Cloud computing in business scenario
P. Pretheeba and N. Pratheesh
- 03.30 p.m. Version controlling for operating system configurations
M. N. M. Thanish and I. K. K. B. Ihalagedara
- 03.50 p.m. RIA-Bus: A Conceptual Technique to Facilitate the AJAX-Based Rich Internet Application
Nalaka R. Dissanayake, G.K.A. Dias and C. Ranasinghe

Poster Presentation

- Consumer mobile community
I.H.M.S. Kumara and D.R.V.L.B. Thambawita
- Stock handling and analyzing system for multi-purpose Co-operative society, Eheliyagoda
S.P.T.P. Senadheera and D.R.V.L.B. Thambawita

Technical Session - Mineral Resources and Technology



Venue: D2 Lecture Theater

Day 01: January 29, 2015

Chairperson

Dr. A.M.K.B. Abeyasinghe
Head/ Department of Earth Resources Engineering
University of Moratuwa
Moratuwa

Panel Members

Dr. A.N.B. Attanayake
Dean/ Faculty of Science and Technology
Uva Wellassa University
Badulla

Dr. C.I. Jayawardhana
Senior Lecturer/Department of Earth Resources Engineering
University of Moratuwa
Moratuwa

Dr. S.P.K. Malaviarachchi
Senior Lecturer/ Department of Geology
University of Peradeniya
Peradeniya

Coordinator:

Mr. Titus Cooray

- 11.00 a.m. Investigation on structural modification of Sri Lankan vein graphite for ion intercalation
A.G.T.R. Aniyangoda, R.M.N.M. Rathnayake,
R.I.C.N. Karunaratne and H.W.M.A.C. Wijayasinghe
- 11.20 a.m. Reinforcement of natural rubber using silica and zeolite mixed fillers
L. W. S. Dilhan, R. M. M. D. Rathnayake, and C.K. Jayasuriya
- 11.40 a.m. Effect of Low pH of Groundwater in Rathupaswala Area, Sri Lanka: A Case Study
W.A.V. Premalal and D.T. Jayawardhana

Mineral Resources and Technology

Contd.

- 12.00 noon Hydrological assessment of flow in Uma Oya, Sri Lanka
U.S. Rathnayake
- 12.20 p.m. Investigation of Trihalomethanes formation in Greater Kandy Water Treatment Plant and its distribution
M. G. N. Perera and S. K. Weragoda
- 12.40 p.m. Water pollution study in Nalanada Lake to improve the Water quality of Naula Water Treatment Plant
T.N.T.K. Nawarathna and M. Makehelwala
- 01.00 p.m. – 02.00 p.m. Lunch
- 02.00 p.m. Quantum Efficiency (Φ) Enhancement of p-CuI Sensitized LB Films of Methylviolet-C18 by Minimizing Dye Aggregates
P.G.D.C.K. Karunarathna, C.A.N. Fernando and S.N.T. De Silva
- 02.20 p.m. Relating climatic parameters with leachate chemistry and its association with river water quality
W.M.D.S.K. Weerakoon, S.K. Weragoda, C.S.K. Kalpage, A. Manipura and A.M. Ziyath
- 02.40 p.m. Determination of potential use of chitosan for the removal of Pb, Fe and Mn in the water samples collected from different areas of Sri Lanka
S. Farhan, S.M. De Silva and C.S.K. Rajapakse
- 03.00 p.m. Heavy metals and trace element distribution around Eppawala Apatite deposit
P.C.B. Wickremasinghe and D.T. Jayawardhana
- 03.20 p.m. Determine the presence of gold in Nilwala river basin southern part of Sri Lanka
B.G.P.T. Saranga, J.T. Cooray, S. Siriwardhane and W.K.B.N. Prame
- 03.40 p.m. Magnesium rechargeable cells based on PVdF gel polymer electrolyte
Y.M.C.D. Jayathilake, K.S. Perera and K.P. Vidanapathirana

Poster Presentation

- Toxic Metal Absorptivity to Agricultural Soils
M.A.N. Chamara, J. T. Cooray and A.N.B. Attanayake
- Synthesizing Electro- conductive grease using graphite
W.A.P.P. Christopher, J. T. Cooray and A.N.B. Attanayake
- Estimating the magnetite content of the Southern part of Eppawala Phosphate Deposit and its parent rock
H.P.V.H. Erandi, N.D.Subasinghe, W.K.B.N. Prame and A.N.B. Aththenayake

Mineral Resources and Technology

Contd.

Day 02: January 30, 2015

Chairperson

Dr. A.M.K.B. Abeyasinghe

Head/ Department of Earth Resources Engineering
University of Moratuwa
Moratuwa

Panel Members

Dr. A.N.B. Attanayake

Dean/ Faculty of Science and Technology
Uva Wellassa University
Badulla

Dr. C.I. Jayawardhana

Senior Lecturer/ Department of Earth Resources Engineering
University of Moratuwa
Moratuwa

Dr. C.K. Jasuriya

Senior Lecturer/ Department of Science and Technology
Uva Wellassa University
Badulla

Coordinator

Mr. Titus Cooray

09.00 a.m.

Keynote Address by Dr. A.M.K.B. Abeyasinghe

"Mineral industry of Sri Lanka"

09.30 a.m.

Investigation of the effectiveness of Upparu Salt Barrage in Jaffna peninsula (3rd Stage)

N. Rupathasan, D.T. Jayawardhana and D.T. Udagedara

09.50 a.m.

Cu₂O Quantum Dots (QDs) Sensitized Cu/p-CuI Photo-electrode for H₂ Generation through efficient water splitting

R.D.A.A. Rajapaksha, C. A. N. Fernando and S. N. T. De Silva

Mineral Resources and Technology

Contd.



- 10.10 a.m. Enhancement of solubility In Eppawala Rock Phosphate Through Biobleaching
T.C. Senevirathna, C.M. Peries and J.T. Cooray
- 10.30 a.m. Purification of surface graphite from Passyala, Sri Lanka
R.M.U.M. Somarathna and N.W.D. Balasooriya
- 10.50 a.m. Tea
- 11.10 a.m. Purification of Meethiyagoda Kaolin for boron free glaze manufacturing
M.H.S. Hussain, S. Medawela and J.T. Cooray
- 11.30 a.m. Groundwater Contamination around in Paddy Terrace in Badulla; special focus on nutrients and tracer element mobility
W.N.C. Wijenayaka and D.T. Jayawardhana
- 11.50 a.m. CuO free p-Cu₂O nano-surfaces prepared by oxidizing copper sheets with a slow heating rate exhibiting the highest photocurrent and the H₂ evaluation rate
U. S. Liyanaarachchi, C.A.N. Fernando and S.N.T. De Silva
- 12.10 p.m. Use of computational method to identify metal binding sites of chitosan as a tool to investigate the interaction mechanism of chitosan and heavy metals.
S.M. De Silva and C.S.K. Rajapakse

Technical Session - Science and Technology

Venue: D1 Lecture Theater

Day 01: January 29, 2015

Chairperson

Dr. K.B. Wijesekara

Head/Department of Science and Technology
Uva Wellassa University
Badulla

Panel Members

Dr. W.A.P. J. Premarathne

Senior Lecturer/Department of Chemistry
Faculty of Science
University of Kelaniya
Kelaniya

Dr. B.A.J.K. Premachandra

Senior Lecturer/Department of Science & Technology
Faculty of Science & Technology
Uva Wellassa University
Badulla

Dr. (Ms.) D.D.C. Wanniarachchi

Senior Lecturer/Department of Science & Technology
Faculty of Science & Technology
Uva Wellassa University
Badulla

Coordinator

Ms. C.M. Peries

11.00 a.m.

Coconut Shell Activated Charcol as a counter Electrode for a Novel- Dye sensitized solar cells

K.A.S.K. Hemachandra and C.A.N. Fernando

11.20 a.m.

Landmine contaminated area scanning robot

M.M.G.T.L. Seneviratne, T. Ekanayake and P.N. Wijesooriya

Science and Technology Contd.



- 11.40 a.m. Role of Microorganisms against hydrocarbon contamination: Bioremediation
S.M. Wickramasinghe Arachchi, M.M.E. Munasinghe, S.T. Sabaragamukorale, S.S. Abeygunaratne, W.W.P. Rodrigo, D.P.D.C. De Silva, K.S.L. Dalpatadu, S.G. Senaratne and P.A.D.H.N. Gunathilaka
- 12.00 noon Characterization of zero valent iron used for nitrate removal in drinking water
K. Shailaja and R. Weerasooriya
- 12.20 p.m. Development of apparatus for the synthesis of carbon nanotubes (CNTs)
K.L.C.D. Senevirathne and A.R. Kumarasinghe
- 12.40 p.m. Development of automated weather station: three cup anemometer and tipping bucket rain gauge
B.C. Liyanapathirana and T.D.K.U. Chathuri and W.K.I.L. Wanniarachchi
- 01.00 p.m. - 02.00 p.m. Lunch
- 02.00 p.m. Radio frequency remote controller for domestic AC loads
K.G.H.A Somasiri and W.K.I.L. Wanniarachchi
- 02.20 p.m. The Arduino controlled incubator to control temperature and humidity
S. Selvanigethan, W.K.I.L. Wanniarachchi and R.M.T.C.B. Ekanayake
- 02.40 p.m. Development of manioc (*Manihotesculenta*) based nutra mix
S.F. Faheema, B.M. K.S. Thilakeratne and E.P.S.K. Ediriweera
- 03.00 p.m. Structure modification of mefenamic acid and evaluate their bioactivities
J.M.S.S. Jayamaha, U.L.B. Jayasinghe, N.S. Kumari and E.P.S.K. Ediriweera

- 03.20 p.m. Antioxidative properties and *Lactobacillus* population in traditional Sri Lankan pickle during fermentation
K.S. Madushanki, R. Liyanage and C. Jayathilake
- 03.40 p.m. Degradation of vulcanized natural rubber using highly unsaturated soybean and sesame oils
R.M.M.D. Rathnayake and C.K. Jayasooriya
- 04.00 p.m. Market orientation of firm in food processing industry: Effect of Outside in capabilities
K.N. Kalupahana, K.W.S.N. Kumari and W.M.P.G.C. Weerakoon

Poster Presentation

- Development of light weight bricks using red clay and rice-husk
G. Vyshnavi, J. Pitawala, D.D.C. Wanniarachchi and H. M. T. G. A. Pitawala
- Anticoagulant activity, Antibacterial activity and Toxicity effect of selected plant in Asteracea family
H.S.U. De Silva, K.B. Wijesekara and S.N. Premathilake
- Evaluating the Potentials of Adopting Cleaner Production Techniques to Reduce the Manufacturing Cost of Rice flour and Coffee
T.P. Wijesingh, E.P.S.K. Ediriweera and V.R.S Peris
- Effect of heat moist treatment on functional properties of rice flour of selected traditional rice varieties in Sri Lanka
R. Chandrani, C.M. Pries, K.B. Wijesekara and S.B. Navarathna
- The Persistence of Vision (POV) LED Globe
R.M.C.P. Karunarathna, T. Ekanayaka, and W.K.I.L. Wanniarachchi
- Wireless Gesture Control Vehicle
S.M.B.P.B. Samarathunga, and W.K.I.L. Wanniarachchi

Day 02: January 30, 2015

Chairperson

Prof. H.M.D.N. Priyantha
Director/ Post Graduate Institute of Science
University of Peradeniya
Peradeniya

Panel Members

Dr. W.A.P.J. Premarathne
Senior Lecturer / Department of Chemistry, Faculty of
Science
University of Kelaniya
Kelaniya

Dr. B.A.J.K. Premachandra
Senior Lecturer / Department of Science & Technology
Faculty of Science & Technology
Uva Wellassa University
Badulla

Dr. R.R. Rathnayake
Research Fellow
Institute of Fundamental Studies
Kandy

Coordinator

Ms. C.M. Peries

- 09.00 a.m. **Keynote Address by Prof. H. M. D. N. Priyantha**
“Academic Contribution for National Development”
- 09.30 a.m. Preparation and properties of in-situ precipitated silica filled rubber composite
H.P. Amarathunga and C. K. Jayasuriya
- 09.50 a.m. Development of a mosquito- repelling paint
T. Kanagasundram and C. K. Jayasuriya
- 10.10 a.m. Investigation on the use of coconut shell powder replacing carbon black as filler in natural rubber
T. Tharmaratnam and J.K. Premachandra

Science and Technology Contd.

- 10.30 a.m. Effect of substrate on biochemical expression of bacterial biofilm
N.A.D. Lakmali, G. Senevirathne, I.D.S. Sinhalage and E.P. S. K. Ediriweera
- 10.50 a.m. Tea
- 11.10 a.m. Pytoremediation potential of *Brassica juncea* Ac.1774 for mitigation of Cu (II) and As (V)
H.M.S.D. Herath and K.B. Wijesekara
- 11.30 a.m. Enhancement of physical properties of natural rubber vulcanizates by incorporating rice husk ash with carbon black as a filler
M. Gnanasubramaniam and J. K. Premachandra
- 11.50 a.m. Effect of TiO₂ nano filler on ionic conductivity of poly (ethylene oxide) based gel polymer electrolyte for magnesium ion batteries
R.A. Jayarathne, H.M.J.C. Pitawala and M.A.K.L. Dissanayake
- 12.10 p.m. Synthesis and characterization of sodium ion conducting solid polymer electrolytes based on poly ethylene oxide
W.A.A.E.B. Wanithunga, H.M.J.C. Pitawala and V.A. Senevirathne
- 12.30 p.m. An assessment of the possibility of process modification for crumb products from manual packing to a semi-automated products
H.S.S. Fernando, I. Wickramasinghe and N. Lalantha

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