



16TH INTERNATIONAL RESEARCH CONFERENCE

Achieving Resilience through Digitalization, Sustainability and Sectoral
Transformation

Programme Book



General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka.



Message from the Chief Guest of IRC 2023



It is indeed a pleasure to felicitate the participants and organizers of the 16th International Research Conference convened by the General Sir John Kotelawala Defence University (KDU). It is gratifying to note that the KDU, has been able to prevail upon the many challenges including the current financial crisis, to convoke this event, and I am honored to officiate as the Chief Guest on this occasion. The theme of the Conference “Achieving Resilience through Digitalization, Sustainability and Sectoral Transformation” focuses on the importance in adopting digital technology for a more inclusive and resilient society. It is a timely subject for discussion, as the recent COVID -19

pandemic has accentuated the importance of digitalization worldwide in which remote work is gaining popularity. Digital transformation and modernization will enhance the sectoral transformation by further integrating delivery, processes and systems across a plethora of areas. It is paramount to transform our educational systems to meet the new requirements in accordance with the ever changing global phenomena. Expectedly, issues pertaining to increasing population, climate change, food security, enhancing health and social security benefits, employment crises due to changing markets and economic slowdown, have all to be faced comprehensively worldwide in the future. As a developing country recovering from an unprecedented economic crisis, Sri Lanka has to overcome these challenges and secure resilience and sustainability to attain developed country status by 2048. The KDU’s lead role in moulding the future of the military as well as civilian youth through high quality tertiary education is well established. The University has gained recognition as a seat of excellence in higher education, by disseminating superlative knowledge that empowers perspectives and develops skills of the young graduates. Further, it has been contributing significantly to the much needed research and innovation spheres of the country. In the context of the present need for high level development, I believe that this Institution will concertedly undertake new initiatives in the identified areas to realize this vision. I congratulate the Vice Chancellor and Conference organizers for their untiring efforts in instituting this international research confab in Sri Lanka with participants from over ten countries. I wish the Conference every success with a fruitful outcome for all participants, and have the confidence that it will enrich the research culture to enhance the nation’s ability to face its future challenges.

Hon. Sagala Ratnayaka

Chief of Staff to the President and National Security Advisor Sri Lanka

Message from the Guest of Honour



I am delighted to extend my warm greetings and best wishes for the International Research Conference 2023, a significant annual event hosted by the General Sir John Kotelawala Defence University. As the Secretary of the Ministry of Defence, I take great pride in conveying this message. I wish to commend KDU for successfully organizing this research conference for the 16th consecutive year, despite the myriad challenges our nation has encountered. I extend my heartfelt congratulations to the Vice Chancellor and the entire team for their unwavering dedication and persistent efforts. The chosen theme for this year's conference, "Achieving Resilience through

Digitalization, Sustainability, and sectoral Transformation," aptly addresses our country's current imperatives. By placing digitalization and sectoral transformation at the forefront, this theme not only promotes resilience and sustainability but also aligns with the strategic needs of our nation. Recognizing the pivotal role of digital transformation in enhancing our economy, it is particularly noteworthy that this aspect has been emphasized in this year's conference. Consequently, I believe that this year's conference will serve as a crucial platform for academia and researchers to engage in discourse on topics directly influencing our nation's development through sectoral advancements. I am heartened by KDU's commendable progress in diverse research fields under the guidance of the Ministry of Defence. KDU sets a commendable example for other universities in Sri Lanka and beyond. I am optimistic that this year's conference will yield significant insights and outcomes that policymakers can leverage to further our country's developmental agenda. I also strongly encourage the conference organizers to disseminate the outcomes to relevant Ministries and departments. This strategic step will foster collaboration between researchers and policymakers, ensuring that the valuable research outcomes contribute tangibly to our nation's progress. In conclusion, I offer my sincere wishes for the success of IRC 2023. May this event empower all participants with knowledge that serves the betterment of our beloved motherland.

GENERAL KAMAL GUNARATNE (Retd)

WWV RWP RSP USP ndc psc MPhil

Secretary

Ministry of Defence, Sri Lanka.

Message from the Keynote Speaker

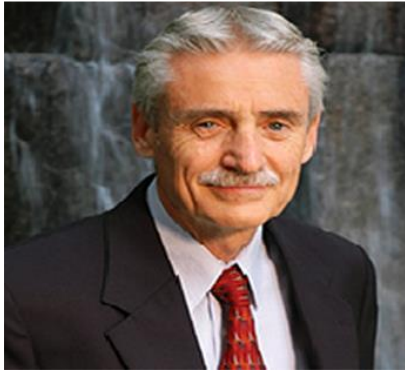


It is my pleasure to be a keynote speaker for the International Research Conference 2023 of the General Sir John Kotelawala Defence University. The Conference Theme, “Achieving Resilience through Digitalization, Sustainability and Sectoral Transformation” is timely and relevant for the country and reflects the way forward following the most challenging years in the recent past. Resilience empowers a country to accept, adapt and move forward in difficult situations, while sustainability enables us to

continue the functions with minimal disturbances. We are in the digital era, in which digital transformation enables us to modernize processes, accelerate workflows and increase profitability that in turn enhances the sectoral transformation. Currently, Sri Lanka is showing strong signs of recovery on many fronts, including economic, social and financial spheres, despite the protracted impact of the COVID-19 pandemic and macroeconomic imbalances that occurred subsequently. In this context, we all have to get together and contribute towards fostering the transformation in various sectors to rebuild the economy on a sustainable basis and achieve resilience for the betterment of our nation. I congratulate the KDU and the conference organizers for selecting a timely theme and wish everyone, including the conference participants, all the very best for a successful event.

Dr. P Nandalal Weerasinghe
PhD (Economics), MSc, BSc
Governor
Central Bank of Sri Lanka

Message from the Keynote Speaker



It is a great pleasure to be a Keynote Speaker for the International Research Conference 2023 of the General Sir John Kotelawala Defence University in Sri Lanka. As educators, we need to prepare the next generation for a future that we cannot imagine. Is that possible? How? These are the issues that I wish to discuss with you at the conference. I thank the organizers for creating an opportunity for us to do so.

Prof. Leland Hartwell
PhD (Biology), BSc
Arizona State University
Tempe, Arizona, USA

Message from the Vice Chancellor



The International Research Conference (IRC) conducted for the 16th consecutive year is momentous in terms of maintaining continuity of this event at KDU. This is a breakthrough in KDU's history and shows dedicated contribution of the university to research and development in various disciplines contributing towards the progress of the country as well as the nation. This year's conference with the theme of "Achieving Resilience through Digitalization, Sustainability and Sectoral Transformation" attracted significant number of papers in different fields of research showing the interest of scientific community on research in digitalization, sustainable development and

transformation of important sectors in the country. Since we are in the 4th industrial revolution era, the digital era, the conference theme highlights the pressing need to adopt digital technology and sectoral transformation for a more inclusive and resilient society. Digitalization has revolutionized the financial systems globally to make payments and other processes more efficient. It is paramount that we adopt such efficiencies into our universities. Various global challenges such as increasing population, climate change, food security, enhancing health and social security benefits, employment crisis due to changing markets and the economic slowdown due to multiple factors have to be faced in the future. As a developing country recovering from an economic crisis and COVID pandemic, we have to overcome these challenges to achieve resilience. Furthermore, the transformation should be driven by data and evidence based decisions and not by opinions. Thus, it is necessary that academia and the research community of the country get together to analyze suitable plans and strategies for digitalization combined with sectoral transformation to achieve sustainable economic growth, to revive the country's economy and to achieve resilience. The International Research Conference of the year 2023 provides a suitable platform to all the academia, researchers and students in various scientific and professional fields based in Sri Lanka as well as overseas to showcase their research findings and innovative ideas and to initiate collaborative research at national as well as international levels. I believe that all participants of this conference will use this opportunity to interact each other to establish networks at both individual and institutional levels and to make future collaborations both nationally and internationally. We, the KDU, request the scientific community of Sri Lanka to join with us in all our future endeavours to support our country and the nation in achieving the development through productive research in various disciplines. The organizers of the 16th International Research Conference are committed to conducting this event under difficult conditions. While thanking the Chair, Secretary and co-secretaries of the Conference organizing Committee for their commitment in arranging the event, I



wish all the very best for the presenters, and participants and for the success of this event. I hope you will enjoy this two-day memorable academic event.

REAR ADMIRAL HGU DAMMIKA KUMARA
VSV USP, psc, MMaritimePol, BSc(DS)
Vice Chancellor
General Sir John Kotelawala Defence University

Message from the Conference Chair



“Achieving Resilience through Digitalization, Sustainability and Sectoral Transformation” is the overarching theme for the 16th International Research Conference of the General Sir John Kotelawala Defence University (KDU IRC 2023). We selected this theme because all nations across the globe, regardless of their economic prowess, need to strengthen their resilience to flourish in this increasingly volatile, uncertain, complex and ambiguous ‘New Normal’ we live in. Only with a resolute commitment to Digitalization and Sustainability can we forge a tenable path to future growth. For Sri Lanka, and for other nations big and small

across the globe, Transformation has to be not just about how we do things; we need to transform our ways of thinking, our long held beliefs and prejudices. We must also transform how we think about the collective future of our planet, how we plan for the future and how we go about implementing those plans to make them a reality. As Apple founder Steve Jobs said, “It’s technology married with the liberal arts, married with the humanities, that yields the results that makes our hearts sing.” At KDU, we have the opportunity to do this more than ever because we house under one umbrella the disciplines of Allied Health Sciences, Basic and Applied Sciences, Built Environment and Spatial Sciences, Computing, Criminal Justice, Defence and Strategic Studies, Engineering, Law, Management, Medicine, Social Sciences and Humanities and Technology. Events like the IRC conference affords us the opportunity to come together to share ideas and work together toward a brighter future. IRC 2023 is truly an international conference. I am happy to report that 400 plus researchers from over 10 countries have been selected to share their research findings for the benefit of fellow scholars, professionals and students. Many of them will attend in person while some will join the Conference online. This year’s keynote speaker’s are Dr Nandalal Weerasinghe, the Governor of the Central Bank, and Prof Leland Hartwell, 2001 Nobel Prize winner for Physiology or Medicine for the discovery of a specific class of genes that control the cell cycle. Their unique and distinct perspectives on the Conference theme, will enrich our understanding of the complexities of life and modern economics. I would like to welcome all participants, authors and presenters to the conference, who are joining us both in person and online, and extend my best wishes and gratitude for their valued engagement. Organizing the conference has been an invigorating experience that often stretched us beyond our comfort zones. I wish to thank all those who took part in the organizing activities and those who will see it through to a successful conclusion. On behalf of the organizing committee, I hope each and every person among you will take away positive experiences, new knowledge and a host of



professional contacts, having enjoyed the KDU hospitality over the two days of the IRC conference. We would like to hear your feedback on your experiences.

Dr. Aruna Dharshan De Silva
PhD (Immunology) BSc
Conference Chair IRC 2023
General Sir John Kotelawala Defence University

Message from the Conference Secretary



It is a pride and honour for me to be an active member of the organizing committee of the 16th International Research Conference of Kotelawala Defence University. Given its multidimensional and multidisciplinary nature, the timely congregation of IRC 2023 under the patronage of our Vice Chancellor shows the perseverance of committees, participating academia, and students at this university in its strive for resilience and success. From its inception as a military academy, Kotelawala Defence University has extended its vistas to become a nationally and globally acclaimed University with superlative academic performances and research. We are proud of our

growing number of research projects, publications, and citations and the global impact created in a diverse array of fields. The University is committed to conducting impactful research and conforming to international standards of excellence. We aim to expand our collaborative, translational research areas by exploring new avenues of investigation, innovation and fostering the growth of a healthy research culture while nurturing a future generation of military officers and civilian graduates. IRC 2023 is concurring under the theme “Achieving Resilience through Digitalization, Sustainability, and Sectoral Transformation” which is both current and important in this post-pandemic era painted with global recession. We are in the midst of the 4th industrial revolution where the line between humans and machines is thinning out with calls for wide scale transformations to achieve resilience. I believe this forum will help in fulfilling the knowledge gaps through shared experience. Whilst thanking all of you, it is my fervent wish that this academic event will, through its free deliberations and candid exchanges of thoughts, ideas, and constructive contributions, achieve its goals for the betterment of the nation.

Dr. Thamarasi Senaratne
PhD (Medical Virology) MSc (Med. Micro) BSc
Conference Secretary IRC 2023
General Sir John Kotelawala Defence University

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INAUGURAL SESSION

7th September 2023

VENUE: Auditorium - Faculty of Graduate Studies (FGS)

0730 – 0815 Hrs	Registration
0815 – 0825 Hrs	Arrival of VIP Invitees
0825 – 0830 Hrs	Arrival of Chief Guest/Guest of Honour
0830 – 0845 Hrs	Inauguration
0845 – 0855 Hrs	Welcome Address Rear Admiral HGUD Kumara VSV USP, psc, MMaritimePol, BSc(DS) Vice Chancellor – General Sir John Kotelawala Defence University
0855 – 0910 Hrs	Speech of the Chief Guest Hon. Sagala Ratnayaka Chief of Staff to the President and National Security Advisor
0910 – 0925 Hrs	Speech of the Guest of Honour General GDH Kamal Gunaratne (Retd) WWV RWP RSP USP ndc psc MPhil Secretary, Ministry of Defence
0925 – 0950 Hrs	Keynote Speech Dr. Nandalal Weerasinghe Governor, Central Bank of Sri Lanka
0950 – 1000 Hrs	Award Ceremony of Research Excellence Awards
1000 – 1025 Hrs	Keynote Speech Prof. Leland H. Hartwell Nobel Prize Winner for Medicine 2001
1025 – 1035 Hrs	Vote of Thanks Dr. Aruna Dharshan De Silva
1035 – 1040 Hrs	Conference Chair – IRC 2023 Group Photograph
1040 – 1100 Hrs	Refreshments



PLENARY SESSIONS

07th September 2023



DEFENCE AND STRATEGIC STUDIES - I

Theme: NATIONAL SECURITY RESILIENCE

Venue: Auditorium, Faculty of Graduate Studies

Chairperson	Admiral UVMP Perera RSP** USP ndu psc MMARITIMEPOL MSC(DS)MGT MSC (MS & NSSS) BA(DS) Hons PWO Commander of the Navy, Sri Lanka
1100 - 1110 Hrs	Introduction of the Session/ Chairpersons
1110 - 1125 Hrs	Major General Sujeewa Senarath Yapa RWP RSP ndu MSc (Strat Mil Studies) – NDU China, MSc (Mgt) Def – KDU SL Commandant, National Defence College, Sri Lanka
1125 -1140 Hrs	Lieutenant General Sukriti Singh Dahiya, SM, VSM Commandant, National Defence College, India
1140 - 1155 Hrs	Lieutenant General Datuk Mardzuki Bin Muhammad Vice Chancellor National Defence University, Malaysia
1155-1210 Hrs	Lieutenant General Md Akbar Hossain SBP, BSP, SUP (BAR), AFWC, PSC, G+, PHD Commandant, National Defence College, Bangladesh
1210-1225 Hrs	Major General Muhamad Raza Aizad, Hilal-e- Imtiaz (Military) Director General, Institute for Strategic Studies Research Analysis (ISSA), National Defence University, Pakistan
1225 - 1250 Hrs	Question and Answering Session
1250 - 1300 Hrs	Panel Discussion and Summing up by the Chair
1300 -1400 Hrs	Lunch

DEFENCE AND STRATEGIC STUDIES - II

Theme: DIGITALIZATION, SUSTAINABILITY AND SECTORAL
TRANSFORMATION

Venue: Auditorium, Faculty of Defence and Strategic Studies

Chairperson	HMGS Palihakkara Former Foreign Secretary and Former Ambassador and Permanent Representative to UN
1400 - 1410 Hrs	Introduction of the Session/ Chairpersons
1410 - 1425 Hrs	Prof. Ken Jimbo Managing Director (Representative Director) President, Asia Pacific Initiative Faculty of Policy Management, Keio University, Japan
1425 -1440 Hrs	Mr. Erik Leklem Regional Program Lead, Indo-Pacom, Advising and Consulting Division, Institute for Security Governance (ISG), USA
1440 - 1455 Hrs	Mr. Pred Evans Assistant Dean for International Affairs Faculty of Social Administration, Thammasat University, Bangkok, Thailand
1455-1510 Hrs	Dr. Rajiv Ranjan, Ph.D Assistant Professor, Department of East Asian Studies, University of Delhi, India
1510-1525 Hrs	Mr. Kevin C. Price Economic and Commercial Specialist of Political and Economic Section of Embassy of US in Sri Lanka, US Embassy of Sri Lanka
1525-1540 Hrs	Ms. Siji Song Programme Coordinator Indian Ocean East Team of the Global Maritime Crime Programme (GMCP)/ UNODC
1540 – 1600 Hrs	Question and Answering Session
1600 - 1610 Hrs	Panel Discussion and Summing up by the Chair
1610 -1640 Hrs	Tea



MEDICINE

Theme: DIGITAL TRANSFORMATION IN HEALTH DELIVERY AND
MEDICAL EDUCATION FOR INTEGRATED, ENHANCED AND SUSTAINABLE
SERVICES

Venue: Mini Theater, 4th Floor, Faculty of Medicine

Chairperson	Dr. Anil Samaranayake Director International Health, Ministry of Health, Sri Lanka
1345 – 1400 Hrs	Introduction of the Session – Chair Person
1400 – 1440 Hrs	Prof. Vajira H.K. Dissanayake Dean/Head and chair Professor of Anatomy Faculty of Medicine, University of Colombo, Sri Lanka
1440 - 1510 Hrs	Prof. David Newby University of Edinburgh, Edinburgh, United Kindom
1510 - 1550 Hrs	Prof. Gayani Tillekeratne Global Health Institute, Duke University, USA
1630 – 1700 Hrs	Prof. Alessandro Sette, La Jolla Institute for Immunology, California, USA
1700 – 1715 Hrs	Panel Discussion and Summing up by the Chair
1715 – 1730 Hrs	Refreshments

ENGINEERING

Theme: INNOVATIVE ENGINEERING SOLUTIONS FOR DIGITALIZATION
AND SUSTAINABLE DEVELOPMENT

Venue: 6-1, 6th Floor, Faculty of Engineering

Chairperson	Prof. J B Ekanayake Department of Electrical and Electronic Engineering, Faculty of Engineering, University of Peradeniya
1400 – 1415 Hrs	Introduction of the Session/ Chairperson
1415 – 1445 Hrs	Prof. Jonathan Richard Binns Defence Science and Technology Group, Department of Defence, Australia
1445 – 1515 Hrs	Dr. Thusitha Sugathapala Department of Mechanical Engineering, Faculty of Engineering, University of Moratuwa
1515 – 1545 Hrs	Dr. Henry Throop Planetary Science Division, NASA HQ, United States
1545 – 1615 Hrs	Eng. Saumya Kumarawadu Project Manager, Ceylon Electricity Board
1615 – 1645 Hrs	Panel Discussion and Summing up by the Chair
1645 – 1700 Hrs	Refreshments



COMPUTING

Theme: DIGITAL INNOVATION FOR SECTORIAL SUSTAINABILITY AND SECURITY: EMPOWERING A SMARTER FUTURE

Venue: LT02, 3rd Floor, Faculty of Medicine

- Chairperson** **Senior Prof. Asoka Karunananda**
Senior Professor, Faculty of Information Technology,
University of Moratuwa
- 1400 – 1410 Hrs Introduction of the Session/Chairperson
- 1410 – 1430 Hrs **Prof. Yukun Bao**
Senior Professor and Deputy Director - Center for
Modern Information System Management, Huazhong
University of Science & Technology, China
- 1430 – 1450 Hrs **Dr. Ruwan D. Nawarathna**
Senior Lecturer in Computer Science, Department of
Statistics and Computer Science, Faculty of Science
University of Peradeniya
- 1450 – 1510 Hrs **Prof. Thrishantha Nanayakkara**
Director of Morph Lab, Professor of Robotics, Imperial
College London
- 1510 – 1530 Hrs **Prof. M Siyamalan**
Professor in Computer Science, Department of
Computer Science, University of Jaffna
- 1530 – 1600 Hrs Panel Discussion and Summing up by the Chair
- 1600 – 1630 Hrs Refreshments
- 1630 – 1730 Hrs Evaluation of Poster Presentations

LAW

Theme: LAW AS A FACILITATOR: GROWTH, EQUITY AND GOVERNANCE
VENUE: MAIN AUDITORIUM, FACULTY OF GRADUATE STUDIES

Chairperson	His Lordship Jayantha Jayasuriya PC Chief Justice, Supreme Court of Sri Lanka
1400-1410 Hrs	Introduction of the Session/Chairperson
1410-1425 Hrs	Use of New Technologies of Digital Era for Education: Legal Perspectives Hon. Dr. Susil Premajayantha AAL, M.P. Minister of Education
1425-1430 Hrs	Questions and Answers
1430-1445 Hrs	Challenges to International Law on the Face of Digital Transformation Hon. Mohamad Ali Sabry PC, M.P. Minister of Foreign Affairs
1445-1450 Hrs	Questions and Answers
1450-1505 Hrs	Reforms in Maritime and Aviation Law for Economic Development Hon. Nimal Siripala de Silva AAL, M.P. Minister of Ports, Shipping and Aviation
1505-1510 Hrs	Questions and Answers
1510-1525 Hrs	Proposed Legal Reforms for Promoting Equitable Development in the Digital Age Hon. Dr. Wijeyadasa Rajapakshe PC, M.P. Minister of Justice

1525-1530 Hrs	Questions and Answers
1530-1545 Hrs	Novel Trends in Legal Education and the Role of Law Schools Mr. Palitha Kumarasinghe PC Chairman, Standing Committee on Legal Studies, University Grants Commission
1545-1550 Hrs	Questions and Answers
1550-1605 Hrs	Role of Law and Lawyer in the Contemporary Society Mr. Kaushalya Nawaratne AAL President, Bar Association of Sri Lanka
1605-1610 Hrs	Questions and Answers
1610-1620 Hrs	Summing up by the Chair
1620-1625 Hrs	Launch of the KDU Law Journal
1625-1645 Hrs	Evaluation of Poster Presentations
1645-1700 Hrs	Refreshments

ALLIED HEALTH SCIENCES

Theme: ACHIEVING SUSTAINABLE RESILIENCE HEALTHCARE THROUGH
MODERN TECHNOLOGY AND COLLABORATIVE RESEARCH

Venue: LL1 Faculty of Medicine

Chairperson	Prof. (Mrs.) H. Harshini Peiris Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna
1400 – 1410 Hrs	Introduction of the Session/ Chairpersons
1410 – 1430 Hrs	Prof. M.D. Lamawansa Vice Chancellor, University of Peradeniya, Sri Lanka
1430 – 1450 Hrs	Assistant Prof. Christopher Steelman Assistant Professor, Weber State University, Utah, United States of America
1450 – 1510 Hrs	Dr. Dulari Jayawardena Junior Faculty, Department of Medicine, University of Illinois at Chicago, United States of America
1510 – 1530 Hrs	Dr. AWS Chandana Senior Lecturer, Applied Sciences, Sabragamuwa University of Sri Lanka
1530 – 1550 Hrs	Dr. (Mrs.) Aseni Ediriweera Researcher, Mae Fah Luang University, Thailand; Kunming Institute of Botany, Chinese Academy of Sciences, China; Tropical Microbiology Research Foundation, Sri Lanka.



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| 1550 – 1610 Hrs | Panel Discussion and Summing up by the Chair |
| 1610 – 1625 Hrs | Refreshments |
| 1625 – 1730 Hrs | Evaluation of Poster Presentations |

TECHNOLOGY

Theme: ACHIEVING SUSTAINABLE DEVELOPMENT THROUGH
TECHNOLOGICAL ADVANCEMENT

Venue: 3-1, Faculty of Graduate Studies

Chairperson	Prof. A.D.U. Shantha Amarasinghe Professor in Chemical and process Engineering Dept of Chemical and Process Engineering University of Moratuwa
1400 – 1410 Hrs	Introduction of the Session/Chairperson
1410 – 1435 Hrs	Prof. B. C. Liyanage Athapattu Professor in Environmental Engineering. Department of Civil Engineering, The Open University of Sri Lanka
1435 –1500 Hrs	Prof. Shiromi Karunaratne Professor in Civil Engineering Department of Civil Engineering in the Faculty of Engineering, Sri Lanka Institute of Information Technology, Malabe
1500 – 1525 Hrs	Senior Prof. Ajith De Alwis Professor in Chemical and Process Engineering Dean faculty of graduate studies, University of Moratuwa
1525 – 1550 Hrs	Prof. Dr. Hasin Anupama Azhari Professor in Medical Physics Director, Centre of Biomedical Science and Engineering, United International University, Bangladesh
1550 – 1615 Hrs	Dr. Jeyasingam Jeyasugiththan Senior lecturer in Medical Physics Department of nuclear science Faculty of science, University of Colombo
1615 – 1630 Hrs	Panel Discussion and Summing up by the Chair.
1630-1730Hrs	Refreshments

CRIMINAL JUSTICE

Theme: SUSTAINABLE SECTORAL TRANSITION THROUGH
DIGITALIZATION IN CRIMINAL JUSTICE

Venue: LT01, 3rd Floor, Faculty of Medicine

Chairperson	Hon. Tharaka Balasuriya State Minister of Foreign Affairs, Sri Lanka
1400 – 1415 Hrs	Introduction of the Session / Chair
1415 – 1435 Hrs	Hon. Justice Nissanka Bandula Karunaratne President of the Court of Appeal, Superior Court Complex, Sri Lanka
1435 – 1455 Hrs	Mr. Rohantha Abeysuriya PC Additional Solicitor General, Head of the Criminal Division, Attorney General’s Department, Sri Lanka
1455 – 1515 Hrs	Dr. Ajith Rohana Senior Deputy Inspector General of Police, Sri Lanka Police Sri Lanka
1515 – 1535 Hrs	Prof. (Dr) GS Bajpai Vice Chancellor, National Law University, Delhi, India
1535 – 1555 Hrs	Panel Discussion and Summing up by the Chair
1555 – 1615 Hrs	Refreshments

BUILT ENVIRONMENT AND SPATIAL SCIENCES

Theme: ASIAN ETHNO – SECTORS: PROTOCOLS FOR A NEW WORLD
ORDER

Venue: Main Auditorium, Southern Campus, KDU

Chairperson	Prof. Panagiotis Psimoulis Associate Professor in Geospatial Engineering, Faculty of Engineering, University of Nottingham, United Kingdom
1300 – 1315 Hrs	Introduction of the Session/ Chairpersons
1315 – 1345 Hrs	Prof. Amila Ratnayake Professor of Geology, Department of Applied Earth Sciences, Faculty of Applied Sciences, Uva Wellassa University, Sri Lanka
1345 – 1415 Hrs	Prof. Jagath Munasinghe Professor in Town Planning, Department of Town & Country Planning, University of Moratuwa, Sri Lanka
1415 – 1445 Hrs	Prof. Chandana Jayalath Professor in Quantity Surveying, Director, SDC, University of Vocational Technology, Ratmalana, Sri Lanka
1445 – 1515 Hrs	Prof. Saman Yapa Senior Lecturer, Department of Decision Science, Faculty of Management Studies and Commerce, University of Sri Jayawardenapura, Sri Lanka
1515 – 1530 Hrs	Panel Discussion and Summing up by the Chair
1530 – 1600 Hrs	Refreshments
1600 – 1615 Hrs	Launch of Poster Session

BASIC AND APPLIED SCIENCES

Theme: Harnessing Scientific Innovation for Sustainable Sectoral Transformation

Venue: LL3, 4th Floor, Faculty of Medicine

Chairpersons	Prof. T Sugandhika Suresh Professor in Biochemistry and Head, Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura
1400 – 1410 Hrs	Introduction of the Session/ Chairperson
1415 – 1435 Hrs	Dr. Rahul Shukla Scientist in Virology, Central Drug Research Institute (CDRI), Lucknow, India
1440 – 1500 Hrs	Prof. Preethi Udagama Cadre Chair & Senior Professor Department of Zoology & Environment Sciences Faculty of Science, University of Colombo, Sri Lanka
1505 – 1525 Hrs	Prof. L B D R P Wijesundera Head of the Department, Senior Professor & Chair of Physics, Faculty of Science, University of Kelaniya, Sri Lanka
1530 – 1550 Hrs	Prof. Tharanga Thoradeniya Professor, Department of Biochemistry and Molecular Biology, Faculty of Medicine, University of Colombo, Sri Lanka
1550 – 1600 Hrs	Summing up by the Chair
1600 Hrs	Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Theme: Research in Management, Social Sciences and Humanities towards
Resilience and Sustainability in a Digitalized Era

Venue: 6 – 2, New FMSH Building

Chairperson	Prof. Siri Hettige Emeritus Professor of Sociology, University of Colombo. Adjunct Professor at RMIT University, Melbourne, Australia
1400 – 1410 Hrs	Introduction of the Session/ Chairperson
1410 – 1440 Hrs	Prof. Nihal Perera Emeritus Professor of Urban Development Ball State University, USA
1440 – 1510 Hrs	Mr. Kamal Geeganage Chief Operating Officer CBL (Foods) International (Pvt) Ltd (A subsidiary of CBL Group)
1510 – 1540 Hrs	Prof. Ravi Dissanayake Senior Lecturer Department of Marketing Management, University of Kelaniya
1540 – 1610 Hrs	Dr. Lesley Dick ELT Project Manager British Council, Sri Lanka
1610 – 1640 Hrs	Panel Discussion and Summing up by the Chair
1640 – 1710 Hrs	Refreshments
1710 – 1730 Hrs	Evaluation of Poster Presentations



ORAL PRESENTATIONS

08th September 2023

DEFENCE AND STRATEGIC STUDIES

Technical Session I: Strategy and Warfare

Venue: Auditorium, Faculty of Graduate Studies

Chairperson	Major General LCR Jayasuriya RSP ndc psc Rector - Southern Campus Kotelawala Defence University
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0850 Hrs	International Security Landscape of Sri Lanka; Since COVID-19 Pandemic PN de Costa
0850 – 0900 Hrs	Resurgence of Islamic State of Iraq and Syria through its Propaganda P Senadasa, O Silva, and S Jayaratne
0900 – 0910 Hrs	Small Team as a Successful Strategy Used in the Battle Against the Liberation Tigers of Tamil Eelam JM Achchige
0910 – 0920 Hrs	Drone-Enable Security: Advancing an Operational Framework for Sri Lanka MADCK Wijetunge and HWN Wanasinghe
0920 – 0930 Hrs	Comparative Analysis of Clausewitz's and Basil Liddle Hart's Military Theories and Their Applicability in Modern Warfare P Amarasinghe
0930 – 0950 Hrs	Question and Answer session
0950 – 1000 Hrs	Summing up by the Session Chair
1000 – 1030 Hrs	Refreshments

DEFENCE AND STRATEGIC STUDIES

Technical Session II: International Security and Geopolitics

Venue: Auditorium, Faculty of Graduate Studies

Chairperson	Dr. Rajiv Ranjan, Ph.D Assistant Professor, Department of East Asian Studies, University of Delhi, India
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1050 Hrs	Achieving Resilience through Digitalization, Sustainability and Sectoral Transformation- What are the Long Term Strategic Options and Reforms for Sri Lanka Armed Forces LCR Jayasuriya
1050 – 1100 Hrs	Building Resilience in the Indo-Pacific: A Holistic Defence Approach for the United States and Sri Lanka K Martyn and D Rodrigo
1100 – 1110 Hrs	Geopolitical Struggle in Indo-Pacific: A Case Study on AUKUS DS Senarathna
1110 – 1120 Hrs	Analyzing the Implementation of the Temporary Protection Directive and its Legal Implications in the Context of the Russia-Ukraine War DGN Sanjeevani
1120 – 1130 Hrs	Social Network Analysis as a Strategic Plan to Overcome Terrorism H de Silva
1130 – 1140 Hrs	An Investigative Study on the Recent Geopolitical Tension in the Indian Ocean Region; With Special Reference to String of Pearls and Necklace of Diamond Strategies MMT Priyangika and HRL Perera



1140 – 1200 Hrs	Question and Answer session
1200 –1210 Hrs	Summing up by the Session Chair
1210 – 1400 Hrs	Lunch

DEFENCE AND STRATEGIC STUDIES

Technical Session III: Diplomacy and Foreign Policy

Venue: Classroom 3-3, Faculty of Graduate Studies

Parallel Session

Chairperson	Mr. Ravinatha Aryasinha Former Foreign Secretary, Ministry of Foreign Affairs in Sri Lanka
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1050 Hrs	Indo-Sri Lanka Relations with Special Reference to China's Cultural Diplomacy in Sri Lanka HIW Bandaranayake
1050 – 1100 Hrs	Swing States of the Global South: Implications for Sri Lanka KKP Ranaweera
1100 – 1110 Hrs	Irregular Maritime Boundary Crossing in-between India and Sri Lanka since Year 2000 onward PKGB Palanage and LSU de Silva
1110 – 1120 Hrs	Social and Cultural Impacts towards Sri Lankan Military from United Nations Missions DAH Egalla
1120 – 1130 Hrs	A New Dawn for the Middle East: Public Diplomacy and Influence Campaigns in the Middle East D Samaragunaratna
1130 – 1150 Hrs	Question and Answer session
1150 - 1200 Hrs	Summing up by the Session Chair
1200 – 1400 Hrs	Lunch

DEFENCE AND STRATEGIC STUDIES

Technical Session IV: Migration and Human Security

Venue: Auditorium, Faculty of Graduate Studies

Chairperson	Mr. S Satheesmohan Senior Lecturer at the Department of Strategic Studies, Faculty of Defence and Strategic Studies General Sir John Kotelawala Defence University Rathmalana, Colombo
1400 - 1405 Hrs	Introduction of the Chair
1405 - 1410 Hrs	Preliminary Remarks by the Chair
1410 -1420 Hrs	Chain Migration: Implication for Developing Sri Lankan Diaspora V Maddumage
1420 - 1430 Hrs	An Assessment of Immigration and Emigration Act in Sri Lanka on Irregular Migration V Maddumage and YM Mayadune
1430-1440 Hrs	Changing Threat Dimensions; Preventing Extremism in the Digital Age C Patabendige
1440-1450 Hrs	Regional Security Implications of the Hybrid War in Afghanistan A Fuard
1450-1500 Hrs	Nexus between Climate Change and Human Security in Sri Lanka: Implications for Small Island Developing States in the Indian Ocean Region APA Prasanga
1500 –1520 Hrs	Question and Answer session
1520 –1530 Hrs	Summing up by the Session Chair
1530–1600 Hrs	Tea

DEFENCE AND STRATEGIC STUDIES

Technical Session V: Environment and Sustainable Development

Venue: Classroom 3-3, Faculty of Graduate Studies

Parallel Session

Chairperson	Prof. Deepthi Wickramasinghe Department of Zoology and Environment Sciences University of Colombo
1400 - 1405 Hrs	Introduction of the Chair
1405 - 1410 Hrs	Preliminary Remarks by the Chair
1410 -1420 Hrs	Heating the Battle Space: Consequences of Climate Change on Air Operations HWN Wanasinghe and MADCK Wijetunge
1420 - 1430 Hrs	Role of Social Media and Online News in 2022 Sri Lankan Riots and Utilization of OODA Loop Based OSINT Framework RMTGP Rathnayaka
1430-1440 Hrs	Resilient Future by Adopting Sustainable Practices, and Driving Sectoral Transformations DAH Egalla and BGSP Samarasinghe
1440-1450 Hrs	Challenges in Reducing Paper Waste in the Sri Lanka Army: Analysis of the Existing Methods ODM de Silvam and PMP Pannalage
1450 – 1500 Hrs	Evaluating Weather Warfare in Alternative Futures: A Game Changer in Future Power Rivalry KERL Fernando
1500 –1520 Hrs	Question and Answer session
1520 –1530 Hrs	Summing up by the Session Chair
1530 – 1600 Hrs	Tea

MEDICINE

(Special Session)

Theme: DIGITAL TRANSFORMATION IN HEALTH DELIVERY AND
MEDICAL EDUCATION FOR INTEGRATED, ENHANCED AND SUSTAINABLE
SERVICES

Venue: Mini Theater, 4th Floor, Faculty of Medicine

Chairperson

Snr Prof. Mirani Weerasooriya

Department of Paraclinical Sciences, Faculty of
Medicine, General Sir John Kotelawala Defence
University, Sri Lanka

0815 – 0830 Hrs Introduction of the Session – Chairperson

0830 – 0900 Hrs **Prof. Leland Hartwell**
Nobel Prize Winner (2001) in Physiology/Medicine
(Question & Answer Session with Dr Dharshan De
Silva)

0900 - 0930 Hrs **Prof. Vajira Weerasinghe**
Former Dean & Professor of Physiology, Faculty of
Medicine, University of Peradeniya

0930 – 0945 Hrs Panel Discussion and Summing up by the Chair

0945 – 1000 Hrs Refreshments

MEDICINE

Technical Session I

Venue: Mini Lecturer Theater, 4th Floor, Faculty of Medicine

Chairpersons	Dr. Priyamali Jayasekara Department of Clinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
	Dr. Iranthi Kumarasinghe Senior Lecturer in Pathology, Department of Paraclinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
1000 – 1010 Hrs	Introduction of the Chair and Preliminary Remarks by the Chair
1010 – 1025 Hrs	Enhancing Recovery and Reducing Severe Acute Malnutrition through Effective Management at Primary Care Level SJW Withanage, S Dias, G Nawagattegama, GRNN Waidyarathna, and A Karunanayake
1025 - 1040Hrs	Evaluating the Efficacy of School Sexual and Reproductive Health Education in Preventing Teenage Pregnancies: A Case Study of a Selected Health Area during the COVID-19 Pandemic in 2021 SJW Withanage, CB Ranaweera, RADDA Kumara, KPT Dharmasena, WGMMSD Chandrasiri, B Aravindan, S Dias, HWN Sewwandi, WDS Lakshima and A Karunanayake
1040 - 1055Hrs	Retrospective Study on the Quality Monitoring Procedure of Blood Components in Newly Established Manufacturing Facility at the

Department of Transfusion Medicine, University Hospital, General Sir John Kotelawala Defence University

TI Withanawasam, WAS Fernando and LLS Udarika

- 1055 – 1110 Hrs **A Five-Year Assessment of Medicines Expenditure in the State Sector to Inform a Reform Strategy for the Economic Crisis**
ADM Gunasekara, ME Balasooriya, MMP Madumadavi, LC Wanniarachchi, HMK Wickramanayake, and BMR Fernandopulle
- 1110 - 1125Hrs **Correlates of Disease Outcomes in Patients with COVID-19, Admitted to Intensive Care Units of University Hospital, Kotelawala Defence University**
HK Weerasinghe, TDG Liyanage, PK Weerawickrama, AMDS Karunarathne andPTR Makuloluwa
- 1125 - 1140Hrs **Analysis of User Needs to Facilitate in Designing a Laboratory Information Management System for Selected Hospitals in Sri Lanka**
HHLK Fernando, NS Fernando, I Abeykoon, and T Sahama
- 1140 – 1150 Hrs Question and Answer Session
- 1150 – 1200 Hrs Summing up by the Session Chair
- 1200 – 1300 Hrs Lunch

MEDICINE

Technical Session II

Venue: Mini Lecturer Theater, 4th Floor, Faculty of Medicine

Chairpersons	Prof. Charitha Goonasekara Department of Preclinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
	Dr. Dulantha de Silva Department of Clinical Sciences, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
1300 – 1310 Hrs by the Chair	Introduction of the Chair and Preliminary Remarks
1310 – 1325 Hrs	Prediction of Biomarkers to Detect Severe Dengue in the Acute Stage AKM Madushani, H Abeygoonawardena, PBV Navaratne, RANK Wijesinghe and AD De Silva
1325 - 1340Hrs	Information Security Awareness and Practices of Systems Administrators in State Sector Health Institutes in Sri Lanka MDPN Gamage, GGAK Kulatunga, MDRN Dayarathna, and P Karunapema
1340 - 1355Hrs	Evidence of Paediatric Renal Injury in Farming Communities Residing in Highly Agricultural Areas in Sri Lanka: A Cross-Sectional Study with urinary Biomarkers PMMA Sandamini, PMCS de Silva, EPS Chandana, SS Jayasinghe, C Herath, and ES Wijewickrama
1355 - 1410 Hrs	Emergent Risk of Sub-Clinical Renal Injury within Paediatric

Communities in the Central Highlands of Sri Lanka: A Region where Chronic Kidney Disease of Unknown Aetiology is not Documented among Adults

TDKSC Gunasekara, PMCS de Silva, EPS Chlandana, S Jayasinghe, C Herath, S Siribaddana, and N Jayasundara

1410 - 1425 Hrs

Breeding Places and Susceptibility Status of Anopheles stephensi Larvae for Temephos in Jaffna, Sri Lanka

S Priyadarshani, RDJ Harishchandra, MAST Fernando, DGIC Somaweera, and PRanweera

1425 - 1440 Hrs

Imaging Guided Combined Structural and Coronary Heart Procedures in One Setting, for Awake Patients: Does it Help Save Money and Time in a Resource-Constrained Health System, without Substantial Complications?

PM Athauda-arachchi,

1440 - 1450 Hrs

Question and Answer Session

1450 - 1500 Hrs

Summing up by the Session Chair

1500 - 1530 Hrs

Announcement of Best Oral and Poster Awards

ENGINEERING

Technical Session I: Achieving Resilience through Innovative Applications
in Civil Engineering

Venue: 6-1, 6th Floor, Faculty of Engineering

Chairperson	Prof. Ayantha Gomes Head, Department of Civil Engineering, Sri Lanka Institute of Information Technology
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0855 Hrs	Power Generation through Wastewater using Microbial Fuel Cell GDSSR Samarasinghe and MB Samarakoon
0855 – 0910 Hrs	Analysis on the Components of a Crisis Management Model to be Developed for the Sri Lankan Construction Sector SP Ranasinghe and R Abeysekara
0910 – 0925 Hrs	Assessment of the Performance of Sri Lanka Navy Built Brackish Water Reverse Osmosis Plants in Chronic Kidney Disease of Unknown Etiology Impacted Areas in Sri Lanka MCP Dissanayake, NVL de Silva, and MCH Chandrasiri
0925 – 0940 Hrs	Quantifying the Impact of Uncertain Material Parameters on Pavement Response using an Inverse Modelling Technique P Kathirgamanathan and M Vignarajah
0940 – 0955 Hrs	Question and Answer session
0955 – 1000 Hrs	Summing up by the Session Chair
1000 – 1030 Hrs	Refreshments

ENGINEERING

Technical Session II: Achieving Resilience through Advances in Biomedical
and Telecommunication Engineering

Venue: 6-1, 6th Floor, Faculty of Engineering

Chairperson	Dr. Tharaka Mohotty Chief Executive Officer EBC Networks EBC Limited
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1055 Hrs	Internet of Things Intravenous Bag Monitoring and Alert System BHMD Wijesinghe and DDGR Karunaratne
1055 – 1110 Hrs	Advancements in Manikin Technology: Enhancing Realism and Effectiveness in Nursing Education UH Abeysuriya, KG Samarawickrama, WLPK Wijesinghe, IMCWB Kohombakadawala, SAC Dalpatadu, JRS de Silva, and EHADK Hewadikaram
1110 – 1125 Hrs	An Overview of Techniques of Acoustic Analysis for the Detection of Obstructive Sleep Apnea KKN Sadara and IMCWB Kohombakadwala
1125 – 1140 Hrs	Thermography and Thermal Sensors as a Breast Cancer Early Diagnostic Technique: A Review MKPSSA Perera, MPA Karunaratne, WPLK Wijesinghe, and NMA Perera
1140 – 1155 Hrs	Gesture Controlled Glove for a Military Team's Communication KT Sehan, RMCP Ranasinghe, and MRRA Bandara
1155 – 1210 Hrs	Question and Answer session
1210 – 1215 Hrs	Summing up by the Session Chair
1215 – 1315 Hrs	Lunch

ENGINEERING

Technical Session III: Achieving Resilience through Novel Mechanical Engineering Solutions

Venue: 6-1, 6th Floor, Faculty of Engineering

Chairperson	Dr. SDR Perera Department of Mechanical Engineering, The Open University of Sri Lanka
1315 – 1320 Hrs	Introduction of the Chair
1320 – 1325 Hrs	Preliminary Remarks by the Chair
1325 – 1340 Hrs	Design of an Active Flow Control Method for a 3-D Wing KNS Perera, MM Basnayake, and SLMD Rangajeeva
1340 – 1355 Hrs	Development of a Low-Cost Energy Harvesting Floor Tile that Operates from Footsteps WRU Fernando, AMM Abhishek, and PMKC Chandimal
1355 – 1410 Hrs	Empirical Feasibility Study to Design and Build Rigid Hull Inflatable Boat for Special Operation Units in Sri Lanka Navy DS Bogahawatte, AATD Priyashan, LAKR Athukorala, and KA Kurukulaarachchi
1410 – 1425 Hrs	Development of a Dough Dividing Machine with Counting Ability for Local Bakeries in Sri Lanka KPCS Kalavitigoda, VDE Gunawardhana, D Vidura, DS Bogahawatte, and FBYS de Silva
1425 – 1440 Hrs	Automatic Clothesline Retrieval System for Domestic Purposes DAB Manthika, EMHT Ekanayake, and KN Perera
1440 – 1455 Hrs	Question and Answer session
1455 – 1500 Hrs	Summing up by the Session Chair
1500 – 1530 Hrs	Refreshments

ENGINEERING

Technical Session IV: Achieving Resilience through Hydraulic Engineering Research

Venue: 6-1, 6th Floor, Faculty of Engineering

Chairperson	Dr. Sameera Samarasekara Department of Civil Engineering, University of Sri Jayawardenapura
1530 – 1535 Hrs	Introduction of the Chair
1535 – 1540 Hrs	Preliminary Remarks by the Chair
1540 – 1555 Hrs	Investigation of Trends in Multiday Extreme Rainfall SN Ranasinghe, WCDK Fernando, and SS Wickramasuriya
1555 – 1610 Hrs	Estimation of Probable Maximum Precipitation in the Context of Climate Change KMSS Gunathilaka, WCDK Fernando, and SS Wickramasuriya
1610 – 1625 Hrs	Preliminary Wave Energy Assessment to Setup a Breakwater Type Oscillating Water Column Ocean Wave Energy Converter at Hambantota Port, Sri Lanka MCP Dissanayake and S Hikkaduwa
1625 – 1640 Hrs	Application of HEC-RAS 2D Model to Simulate Scour Depth Around Bridge Piers: A Case Study on Hanwella Bridge, Sri Lanka A Thembiliyagoda, K de Silva, and N Wijayarathna
1640 – 1655 Hrs	Question and Answer session
1655 – 1700 Hrs	Summing up by the Session Chair
1700 – 1730 Hrs	Award Ceremony

COMPUTING

Technical Session I: Harnessing IoT for Smart and Innovative Solutions

Venue: LT 02, 03rd Floor, Faculty of Medicine

Chairperson	Dr. P. Ravindra S. De Silva Senior Lecturer in Computer Science, Department of Computer Science, Faculty of Applied Sciences, University of Sri Jayewardenepura
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0850 Hrs	Real-Time Server Room Monitoring System using Internet of Things Technology Y Tishan and I Ashly
0850 – 0900 Hrs	Applications of Wireless Sensor Networks and Object Detection in Precision Agriculture: A Review UI Abeyasinghe, WMKS Ilmini, and NT Jayathilake
0900 – 0910 Hrs	A Deep Learning-Based Approach for Detecting Dust on Solar Panels WMTN Weerasekara and MWP Maduranga
0910 – 0920 Hrs	Robotic Marionette Puppet Controller with Shadow Effect UDI Perera, B Hettige, and MAST Goonatilake
0920 – 0930 Hrs	A Mobile Application Featuring Advances in Immersive Augmented Reality Interventions to Support Depression Patients AWTD Sarathchandra, K Herbert, and LP Kalansooriya
0930 – 0950 Hrs	Question and Answer session
0950 – 1000 Hrs	Summing up by the Session Chair
1000 – 1025 Hrs	Refreshments

COMPUTING

Technical Session II: Cross-Disciplinary Innovation: Technology Solutions
for Real-World Challenges

Venue: LT 02, 03rd Floor, Faculty of Medicine

Chairperson	Prof. Janaka Wijayanayake Professor in Information Technology, Department of Industrial Management, Faculty of Science, University of Kelaniya
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1050 Hrs	A Review on Wireless Sensor Networks and Object Detection Methods in Military Applications NWAGN Nanayakkara, WMKS Ilmini, and NT Jayathilake
1050 – 1100 Hrs	Investigating User Interaction in User Interface Designs of Educational Websites for 7-8-Year-Old Children: A Comparative Study DMS Sathsara, WGNA Gamage, and SK Jayathunga
1100 – 1110 Hrs	Disease Detection in Coffee Plants using Computer Vision DTN Senanayake and MWP Maduranga
1110 – 1120 Hrs	Design of a Study Table for Computing Undergraduates with the use of Kansei Engineering SABN Jayasundera, MPWSS Peiris, RGGa Rathnayake, ADKH Aluthge, WGEP Weeraratne, and LP Kalansooriya
1120 – 1130 Hrs	Design and Development of Vision-Based Uneven Surface Detection Mechanism of Low Computational Complexity for Walk-Assisting System for Blind People PSP Jayamangala, MRHE Bandara, and IPM Wickramasinghe
1130 – 1140 Hrs	Fuzzy Logic-based Visual Impairment Level Identification System for Pre-schoolers and Toddlers MHK Sammani, DU Vidanagama, and MPL Perera
1140 – 1200 Hrs	Question and Answer session
1200 – 1210 Hrs	Summing up by the Session Chair
1210 – 1300 Hrs	Lunch

COMPUTING

Technical Session III: Innovative Applications of Artificial Intelligence and Machine Learning in Education, Healthcare, and Industry

Venue: LT 02, 03rd Floor, Faculty of Medicine

Chairperson	Dr. S. R. Liyanage Senior Lecturer in Computer Science, Department of Software Engineering, Faculty of Computing and Technology, University of Kelaniya
1300 – 1305 Hrs	Introduction of the Chair
1305 – 1310 Hrs	Preliminary Remarks by the Chair
1310 – 1320 Hrs	Integrated Model for Identifying the Learning Style of the Students using Machine Learning Techniques: An Approach of Felder Silverman Learning Style Model (FSLSM) WAAM Wanniarachchi and HKS Premadasa
1320 – 1340 Hrs	Interactive Spelling Application for Preschoolers: A Journey Towards Playful Language Exploration SHIDN de Silva, MTA Wickramasinghe, and D Gunasekara
1340 – 1350 Hrs	Enhancing Crop Quality of Paddy using Object Detection Techniques WDM Sandeepanie, S Rathnayake, and A Gunasinghe
1350 – 1400 Hrs	Deep Learning based Approach for Obstructive Sleep Apnea Detection using EEG Signals RDAV Thennakoon, LP Kalansooriya, and GAI Uwanthika
1400 – 1410 Hrs	Development of a Web Application for Asthmatic Wheeze Detection using Convolutional Neural Networks DP Deraniyagala, GAI Uwanthika, MKP Madushanka, and MTKD Dissanayake

1410 – 1420 Hrs	A Gated Recurrent Unit Neural Network-based Predictive Maintenance Approach for Machinery Maintenance in the Apparel Industry UMMPK Nawarathne, C Walgampaya, and I Aberathne
1420 – 1500 Hrs	Question and Answer session
1500 – 1510 Hrs	Summing up by the Session Chair
1510 – 1530 Hrs	Refreshments

COMPUTING

Technical Session IV: Innovative Technologies for Improved Services and User Experiences

Venue: LT 02, 03rd Floor, Faculty of Medicine

Chairperson	Dr. Saminda Premaratne Senior Lecturer, Department of Information Technology, Faculty of Information Technology, University of Moratuwa
1530 – 1535 Hrs	Introduction of the Chair
1535 – 1540 Hrs	Preliminary Remarks by the Chair
1540 – 1550 Hrs	Streamlining Emergency Ambulance Services with Fast API: A Location-based Approach for Efficient Healthcare Delivery GN Induruwage and DU Vidanagama
1550 – 1600 Hrs	Challenges and Perspectives in Urban Flood Management Automation RMM Pradeep and NTS Wijesekera
1600 – 1610 Hrs	A Review on the Impact of Online Banking on Customer Satisfaction: A Comparative Analysis of User Experience and Service Quality Factors in Online Banking HT Sewwandin and B Hettige
1610 – 1620 Hrs	Enhancing University Education in Sri Lanka through Gamification: A Review on Student Engagement and Learning Perspective K Herbert, AWTD Sarathchandra, and A Kurunayaka
1620 – 1630 Hrs	Unchaining the Future of Software License Management in the Digital Age through Blockchain KAD de Alwis, DD Chamindya, KR Hettiarachchi, WAAM Wanniarachchi, and PPNV Kumara
1630 – 1650 Hrs	Question and Answer session
1650 – 1700 Hrs	Summing up by the Session Chair
1700 – 1725 Hrs	Refreshments

LAW

Technical Session I: Constitutional Governance and Contemporary
Challenges in Public Law

Venue: Board Room, Academic Wing

Chairperson	Mr. Shanaka Wijesinghe PC Deputy Solicitor General, Attorney General's Department, Sri Lanka
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0850 Hrs	Exploring the Child Custody Laws in Sri Lanka: Balancing Parental Rights and Best Interest ME Kumarasinghe
0850 – 0900 Hrs	“Living in Adultery” as a Ground for Losing the Opportunity to Claim Maintenance: A Critical Appraisal of the Sri Lankan Judicial Standpoint MRIK Munasinghe
0900 – 0910 Hrs	Combating Online Child Sexual Exploitation and Abuse in Sri Lanka: Towards a Statutory Response BMP Bandaranayake
0910 – 0920 Hrs	The Prevention of Domestic Violence Instigated by the Insane: An Analytical Study on the Sri Lankan Perspective MO Ravindi, SL de Silva and KTS de Silva
0920 – 0930 Hrs	The Impact of Parental Alcoholism on Children's Rights KTDS Kalansooriya
0930 – 0950 Hrs	Question and Answer session
0950 – 0955 Hrs	Summing up by the Session Chair
0955 – 1030 Hrs	Refreshments

LAW

Technical Session II: Business Law Reforms for Economic Development

Venue: Board Room, Academic Wing

Chairperson	Dr. Athula Pathinayake Principal, Sri Lanka Law College, Sri Lanka
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1050 Hrs	Confidentiality of the Trade Secrets during Court Proceedings in Sri Lanka: A Comparative Analysis JAI Kumarasinghe
1050 – 1100 Hrs	A Time-Travel to “Nova-Specie”: Influence of Naturalism in Roman Law on the Ownership in Modern Copyright Law RBWMH Rathnamalala and MPC Wijesooriya
1100 – 1110 Hrs	Recommendations to Improve the Legal Framework in Sri Lanka on Combating Involvement of Convertible Virtual Currencies in Narcotic Drugs and Psychotropic Substances Trafficking YB Dissanayake
1110 – 1120 Hrs	Future of Workplace Health and Safety: A Legal Perspective NKK Mudalige, AA Edirisinghe and DP Aluthge
1120 – 1140 Hrs	Question and Answer session
1140 – 1145 Hrs	Summing up by the Session Chair
1145 – 1330 Hrs	Lunch

LAW

Technical Session III: Global Trends in International Law Jurisprudence

Venue: Board Room, Academic Wing

Chairperson	Mr. Madhava Tennakoon Deputy Solicitor General, Attorney General's Department, Sri Lanka
1330 – 1335 Hrs	Introduction of the Chair
1335 – 1340 Hrs	Preliminary Remarks by the Chair
1340 – 1350 Hrs	Legislating the National Intelligence Services in Sri Lanka: A Comparative Analysis WDS Rodrigo, HSD Mendis and KAAN Thilakarathna
1350 – 1400 Hrs	Impact of Artificial Intelligence on Legal Practice in Sri Lanka WMDU Weerasekara
1400 – 1410 Hrs	Equilibrium of Cybersecurity and Data Privacy: Analysing Cyber Terrorism in International Context SCTS Fernando, WMRK Wijesundara and DNY Welaratne
1410 – 1420 Hrs	“Flying Without Souls”: A Comparative Analysis of Laws Governing Drones in Sri Lanka and the European Union AKS de Silva
1420 – 1440 Hrs	Question and Answer session
1440 – 1445 Hrs	Summing up by the Session Chair
1445 – 1530 Hrs	Refreshments

LAW

Technical Session IV: Role of Law in Ensuring Justice and Fairness
Venue: Board Room, Academic Wing

Chairperson	Mr. Sumathi Dharmawardena PC Additional Solicitor General Attorney General's Department, Sri Lanka
1530 – 1535 Hrs	Introduction of the Chair
1535 – 1540 Hrs	Preliminary Remarks by the Chair
1540 – 1550 Hrs	Legalizing Right to Die as a Fundamental Human Right in Sri Lanka KAIM Kandapolaarachchi and AADDS Parindya
1550 – 1600 Hrs	The Interplay of Realms in Shaping Access to Safe and Legal Abortion Services in Sri Lanka in Cases of Rape-Induced Pregnancies WAP Anuradhi and NM Wedaarachchi
1600 – 1610 Hrs	An Analysis of Duty to Reason-Giving in Administrative Law FZ Ilyas
1610 – 1620 Hrs	Recognition of Principle of State Responsibility in Land Based Marine Pollution as a Response to State Sovereignty BMAHH Balasuriya
1620 – 1630 Hrs	Question and Answer session
1630 – 1640 Hrs	Summing up by the Session Chair
1640 – 1700 Hrs	Refreshments

ALLIED HEALTH SCIENCES

Technical Session I: Physiotherapy

Venue: LL1, 4th Floor, Faculty of Medicine

Chairperson	Dr. Anuji Upekshika Gamage Senior lecturer in Community Medicine, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0850 Hrs	Relationship between Heart Recovery Rate, Physical Activity Level, Body Mass Index and Sedentary Behavior among Undergraduates of Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University JMLN Jayasekara, PVL Fernando, WDUV Karunathilake, GAD Perera, and VS Thuduvage
0850 – 0900 Hrs	Association between Physical Activity and Instrumental activities of Daily living in Elderly People with Type 2 Diabetes Mellitus MF Noordeen, and AH Wettasinghe
0900 – 0910 Hrs	Assessment of Learner Satisfaction of BSc. Physiotherapy Undergraduates of a Selected University in Colombo, Sri Lanka regarding Onsite and Online Learning Experience during the Covid- 19 Pandemic WSH Perera, KSL de Silva, AASN Amarasinghe, T Praveena, and GU Jayaweera
0910 – 0920 Hrs	The Relationship between the Anthropometric Indices and Hypertension in Elderly Population at Elderly Homes in the Medical Officer of Health Area of Piliyandala in Sri Lanka

SA Goonesekera, TVKH Samoda, MDH Sankalpa, and
GAD Perera

- 0920 – 0930 Hrs **Prevalence of Neck Pain among Military Clerks in the Directorate of Pay and Record and Directorate of Benevolent Fund in Army Camp, Panagoda**
TRC Fernando, MKM Ilham, PMD Subasinghe, and HPM Dabare
- 0930 – 0940 Hrs **Relationship between Physical Activity and Falls in Older Adults with Type 2 Diabetes Mellitus**
WANR Sandeepani, KRM Chandrathilaka, and AH Wettasinghe
- 0940 – 0950 Hrs **Comparison of Health related Physical Fitness Components in Young Male Rugby and Soccer Players in Kotelawala Defence University**
RP Siriwardana, AKMSS Bandaranayake, and ADP Perera
- 0950 – 1000 Hrs **Sedentary behavior and Social loneliness in before, during and after the Lockdown Periods in COVID-19 Pandemic among Physiotherapy Undergraduate Students in Sri Lanka**
SA Jayasingha, VMP Kariyawasam, HHDD Jagathsiri, and ADP Perera
- 1000 – 1020 Hrs Question and Answer session
- 1020 – 1030 Hrs Summing up by the Session Chair
- 1035 – 1045 Hrs Refreshments

ALLIED HEALTH SCIENCES

Technical Session (parallel) I: Radiography and Radiotherapy

Venue: LL2, 4th Floor, Faculty of Medicine

Chairperson	Senior Prof. RN Pathirana Department of Pharmacy, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0850 Hrs	Detection of Gross Brain Volume Changes in Patients with Migraine Using Magnetic Resonance Imaging IS de Fonseka, MAD Lawanya, G Senanayake, KSR Pushpakumara, and WM Ediri Arachchi
0850 – 0900 Hrs	Assessing Occupational Radiation Exposure for PET/CT Technologists: A Study of Finger Radiation Dose at a Selected Hospital SP Gamage, V Ramanathan, and R Tudugala
0900 – 0910 Hrs	Establishment of Facility Reference Level for Computed Tomography in Radiotherapy Simulation Examinations at National Cancer Institute Sri Lanka ADAD Athukorala, V Ramanathan, and RMGCSB Jayathissa
0910 – 0920 Hrs	Assessment of Setup-errors in 3D-Conformal Radiotherapy for Head and Neck Cancer Patients using an Electronic Portal Imaging Device UIU Karunathilaka and V Ramanathan

- 0930 – 0940 Hrs **Brain Structural Covariance Networks of Patients with Migraine: A Source-based Morphometry Study**
DAD Wishwanthi, WNS Fernando, G Senanayake, KSR Pushpakumara, and WM Ediri Arachchi
- 0940 – 0950 Hrs **An Evaluation of the Relationship between Viral Load and Quantitative Chest Computed Tomography Imaging Features in Patients with COVID-19**
WAMN Rukshali, IHGU Jinadasa, WMIS Wickramasinghe, WKC Sampath, L Chandrasena, and V Abeysuriya
- 0950 – 1000 Hrs **Development of Institutional Reference Level of Radiation Dose for Cardiac Catheterization Procedures**
MPII Sigera, MFA Ahamed, V Ramanathan, and TD Athokorala
- 1000 – 1010 Hrs **A Gender-based Evaluation of Quantitative and Radiological Computed Tomography Imaging Features in Patient with COVID-19**
UTK Madawala, LBS Lekamlage, WMIS Wickramasinghe, HS Niroshani, and WKC Sampath
- 1010– 1030 Hrs Question and Answer session
- 1030 – 1035 Hrs Summing up by the Session Chair
- 1035 – 1045 Hrs Refreshments

ALLIED HEALTH SCIENCES

Technical Session II: Pharmacy

Venue: LL1, 4th Floor, Faculty of Medicine

Chairperson	Senior Prof. RN Pathirana Department of Pharmacy, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University
1045 – 1050 Hrs	Introduction of the Chair
1050 – 1055 Hrs	Preliminary Remarks by the Chair
1055 – 1105 Hrs	Anti-tyrosinase Activity of Green Synthesized Silver Nanoparticles from Aqueous Extract of <i>Nelumbo nucifera</i> Petals WGDC Jayanandana and HIC de Silva
1105 – 1115 Hrs	In Vitro Analysis of the Anti-inflammatory Activity of Sri Lankan Bees' Honey, Aloe vera, their Combination, and the Development of a Topical Anti-inflammatory Gel ASF Amna, MTO Cooray, AM Abeysekera, S Sabalingam and RN Pathirana
1115 – 1125 Hrs	Evaluation of Excipient Properties of Starch Extracted from <i>Dioscorea alata</i> (Kahata Angala) grown in Sri Lanka and Its Suitability in the Formulation of a Losartan Potassium Tablet SANC Samarasinghe, BMWIM Warapitiya, S Sabalingam, SU Kankanamge and RN Pathirana
1125 – 1135 Hrs	Formulation of Nanosuspensions of <i>Psidium guajava</i> Fruit Extract and Evaluation of the Antioxidant Activity LKDN Wijewardhana, MST Mendis, THD Liyanage, AGK Neranja and KDKP Kumari

- 1135 – 1145 Hrs **Comparative Analysis of the Anti- cholesterol Activity and Phytochemical Analysis of *Biophytum reinwardtii*, *Trachyspermum roxburghianum* and *Cyanthillium cinereum* extracts**
DADM Silva, GSC Prabhashini, DMCP Senarathna, SS Farwin, MMUU Fath, K Weeranayaka, DNAW Samarakoon and GRN Rathnayaka
- 1145 – 1155 Hrs **A Comparative Study on the Toxicity and Biocompatibility of *Hemidesmus indicus* Aqueous Extract-in Various Developmental Stages of Zebrafish (*Danio rerio*) using the FET293 Bioassay**
HDT Madhuranga, GKBCM Gunasena, WASH Dharmasena, TGKU Thambiliyagoda, MCM Riham, DNAW Samarakoon and HMLPB Herath
- 1155 – 1205 Hrs **Formulation, Characterization, and Evaluation of the Antibacterial Activity of a Polyherbal Hand Sanitizer Gel**
MR Jayawardhana, KKCC Pabasara, BLC Samanmali and AWMKK Bandara
- 1205 – 1225 Hrs Question and Answer session
- 1225 – 1235 Hrs Summing up by the Session Chair
- 1235 – 1330 Hrs Lunch

ALLIED HEALTH SCIENCES

Technical Session (parallel) II: Nursing and Midwifery

Venue: LL2, 4th Floor, Faculty of Medicine

Chairperson	Prof. RANK Wijesinghe Professor of Medicine, Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
1045 – 1050 Hrs	Introduction of the Chair
1050 – 1055 Hrs	Preliminary Remarks by the Chair
1055 – 1105 Hrs	Prospective Surveillance of Peripheral Intravenous Cannula Site Phlebitis among Patients Admitted to Medical and Surgical Wards at University Hospital Kotelawala Defence University (UHKDU) Sri Lanka IKB Ilukkumbura, PDM Fernando, KW Sumedha, UTN Seneratne, and WMID Nakkawita
1105 –1115 Hrs	Nurses’ Perceptions and Practices Regarding Cancer Pain Management in Apeksha Hospital, Maharagama SHAP Piyasiri, HRA Shriyantha, SAW Kalhari, S Jabir, L Dissanayake, and K Abhayasinghe
1115 –1125 Hrs	Parental Knowledge, Attitudes, and Adherence to Preventive Practices of Bronchial Asthma in Children AMHC Atthanayake, DLG Chamoda, WNM Fernando, MN Priyadarshanie, and GDI Rodrigo
1125 – 1135 Hrs	Prevalence of Overweight, Obesity, and associated Lifestyle Behaviours among Female Nurses in Colombo South Teaching Hospital, Sri Lanka GHJ Nisansala, SATP Siriwardana, BMDA Banneheka, BMKC Balasooriya, KIDF Senanayake, and KGPK Munidasa

- 1135 – 1145Hrs **Awareness, Self-Care Measures, and Medication Adherence to Managing Diabetes Mellitus among Patients attending Colombo South Teaching Hospital, Sri Lanka**
KADM Hansika, KI Thushari, RMKC Thennakoon, HKC Jayanthi, MWN Nisansala, KHC Hansini, and NSASN Senarath
- 1145 – 1205 Hrs Question and Answer session
- 1205 – 1215 Hrs Summing up by the Session Chair
- 1215 – 1330 Hrs Lunch

ALLIED HEALTH SCIENCES

Technical Session III: Medical Laboratory Sciences

Venue: LL1, 4th Floor, Faculty of Medicine

Chairperson	Prof. Inoka C Perera Department of Zoology and Environment Sciences, University of Colombo
1330 – 1335 Hrs	Introduction of the Chair
1335 – 1340 Hrs	Preliminary Remarks by the Chair
1340 – 1350 Hrs	In vitro Antibacterial Activity of <i>Punica granatum</i> Bark used as Ayurvedic Medicine in Sri Lanka SGC Sanchethana, HMUAK Herath, RMRA Shantha, MNF Hasaana, DDM Jayasuriya, AWMKK Bandara, and DUP Sedara
1350 – 1400 Hrs	In-vitro Antimicrobial Properties of Plant Mixture against Common Microbial Strains Causing Urinary Tract Infections (UTIs) and Cytotoxicity Determination Using Brine Shrimp Lethality Assay (BSLA) JIMK Ilangage, KMK Fernando, IACS Ilangakoon, DMMK Dissanayake, NPD Rajapaksha, LH Walpola, and D Hettiarachchi
1400 – 1410 Hrs	Antimicrobial activity of <i>Flueggea leucopyrus</i> Willd (Katupila) Leaf Extracts against Some Common Milk Pathogens JMKDB Jayaweera, AKUR Ravihari, KAPH Kuruppu, JDK Dunukara, and HMLPB Herath
1410 – 1420 Hrs	A Preliminary Study to Detect the Presence of Bacteria in Lumbar Disc Herniation P Aravinth, ND Withanage, S Pathirage, SP Athiththan, S Perera, and LV Athiththan

- 1420 – 1430 Hrs **Determination of Glycemic Index, Antidiabetic and Antioxidant Activities of Palmyra/*Borassus flabellifer* Treacle**
MRK Farween, MTF Shamlala, IDLM Ariyapala, MKF Shahana, RADAD Poornima, ULRM de Silva, MDTL Gunathilaka, RGL Rathnayake, and P Ranasinghe
- 1430 – 1440 Hrs **Variation of Biochemical Parameters in Covid-19 Patients Admitted to Colombo South Teaching Hospital, Sri Lanka**
SH Wickramaratne, NK Samaraweera, RD Widanagama, and WAC Karunarathne
- 1440 – 1450 Hrs **Green Synthesis of Silver Nanoparticles using Silk-banana-peel Extract and their Antimicrobial Activity**
VL Abeyrathne, UDNAE Nanayakkara, KNMIN Kumarasinghe, MMA Banu, AY Thanushanth, DNAW Samarakoon, and MMK Peiris
- 1450 – 1500 Hrs **Comparison of Estimated – Glomerular Filtration Rates (e - GFR) Given by Different Serum creatinine Based Equations among Patients with Chronic Kidney Disease (CKD) Attending the Teaching Hospital, Kurunegala, Sri Lanka**
LHMRL Ambillapitiya, NMN Nethranjalee, HMN Herath, and JMKB Jayasekara
- 1500 – 1520 Hrs Question and Answer session
- 1520 – 1530 Hrs Summing up by the Session Chair
- 1530 – 1545 Hrs Refreshments

ALLIED HEALTH SCIENCES

Technical (Parallel) Session III: Nursing and Midwifery

Venue: LL2, 4th Floor, Faculty of Medicine

Chairperson	Prof. SSP Warnakulasuriya, Professor in Nursing, Dean- Faculty of Nursing, University of Colombo, Sri Lanka
1330 – 1335 Hrs	Introduction of the Chair
1335 – 1340 Hrs	Preliminary Remarks by the Chair
1340 – 1350 Hrs	The Barriers to Continuing Higher Education among Nurses: Observations of a Preliminary Study among Registered Nurses Working in a Tertiary Care Hospital SDD Priyangika, DMUM Dissanayake, and BMC Rathnayake
1350 – 1400 Hrs	Work-related Physical and Psychological Health Concerns of Nurses at University Hospital-Kotelawala Defence University, Werahera, Sri Lanka: A Descriptive, Mixed-method Study BGR Shanika, YKP Yodhasinghe, KGNU Kapokotuwa, KWDIL Gunawardhane, K Abhayasinghe, S Senanayake, and J Mendis
1400 – 1410 Hrs	An Exploration of Coping Strategies Used During the Examination Period by Final Year Allied Health Undergraduates of General Sir John Kotelawala Defence University: A Qualitative Study PLAA Sathsarani, LGS Kavindya, SMPNAB Abhayarathna, KLKTD Sandharenu, AWMKK Bandara, and NFJ Fernando
1410 – 1420 Hrs	Caregiving Skills of Family Caregivers Providing Daily Care to Dependent Stroke Survivors: A Study in Colombo, Sri Lanka SAMH Kumara, SW Wimalasekera, G Ponnampereuma, AATD Amarasekera, and SB Gunatilake

- 1420 – 1430 Hrs **Prevalence and Pattern of Tobacco, Alcohol and Other Substances Abuse among Male Manual Labourers in Colombo District, Sri Lanka**
HLDD Bandara, WSM Tissera, GMNT Jayathunga, HMP Herath, and MS Fernando
- 1430 – 1450 Hrs Question and Answer session
- 1450 – 1500 Hrs Summing up by the Session Chair
- 1500 – 1515 Hrs Refreshments

TECHNOLOGY

THEME: Achieving Sustainable Development Through
Technological Advancement

Venue: 3-1, Faculty of Graduate Studies

- Chairperson **Prof. Himan KG Punchihewa**
Department of Mechanical Engineering, Faculty of
Engineering, University of Moratuwa
- 0830 – 0835 Hrs Introduction of the Chair
- 0835 – 0840 Hrs Preliminary Remarks by the Chair
- 0840 – 0855 Hrs **Smart System for Human Nail Disease Diagnosis and
Underlying Systemic Disease**
K Prajeeth, SJ Iruthayaraj, T Ajanthan, A Gamage, MAF
Ahamed, S Vidhanaarachchi
- 0855 – 0910 Hrs **Analysis of Atmospheric ⁷Be concentration in
Colombo, Sri Lanka**
K Liyanage, MR Lamabadusuriya, and
CS Sumithrarachchi
- 0910 – 0925 Hrs **Implementation of SMS Base Pulse Oximeter for Early
Identification of “Silent Hypoxia” Patients**
ULDGT Gunasinghe, WKMND Bandara, UM Senarathna,
MAN Nadun
- 0925 – 0940 Hrs **Feasibility of ¹⁷⁷Lutetium Radioisotope Production
Using Natural Ytterbium for Targeted Radiotherapy**
E Randil, MR Lamabadusuriya, C Sumithrarachchi
- 0940 – 0955 Hrs **Scanning Tunnelling Microscopy Investigation
of Naturally Occurring Graphite Surface**
HD Siriwardena, S Jayawardena, M Shimomura
- 0955 – 1010 Hrs Summing up by the Session Chair
- 1010– 1030 Hrs Tea

TECHNOLOGY

THEME: Achieving Sustainable Development Through
Technological Advancement

Venue: 3-1, Faculty of Graduate Studies

Chairperson	Prof. Himan KG Punchihewa Department of Mechanical Engineering, Faculty of Engineering, University of Moratuwa
1030 – 1035 Hrs	Preliminary Remarks by the Chair
1035 – 1050 Hrs	Radio Signal Based Indoor Localization with Histogram-based Gradient Boosting Classifier with LoRa WGCN Egodagama, MWP Maduranga
1050 – 1105Hrs	Field Performance Evaluation of Mechanical Weeder for Paddy RHMN Priyamal, EWNM Perera, BMWL Balasooriya, CP Rupasinghe
1105 – 1120 Hrs	A Case Study of Mass Concrete Footing Construction for a High-rise Building Development in Sri Lanka T Prasanthan, S Asamoto
1120 – 1135 Hrs	From Fields to Skies: Assessing the Viability of Unmanned Aerial Vehicle (Drone) Technology for Precision Agriculture in Sri Lanka KR Hettiarachchi, KAD De Alwis, D Gunasekera
1135 – 1150Hrs	Performance Evaluation of Solar Hot Water Collector Comprising Modified Loop Heat Pipes VN Vithanage, HMKP Jayathilaka, MSD Nimali, YSK De Silva
1150 – 1205 Hrs	Summing up by the Session Chair
1205 - 1300 Hrs	Evaluation of Poster Presentations
1300-1400 Hrs	Lunch

CRIMINAL JUSTICE

Technical Session I: Criminal Justice

Venue: LT01, 3rd Floor, Faculty of Medicine

Chairperson

Prof. W.M. Dhanapala

Professor in Criminology, Head of the Department,
Department of Criminology, Faculty of Humanities and
Social Sciences, University of Sri Jayewardenepura
Sri Lanka

Dr. Sanath Sameera Wijesinghe

Head of the Department
Department of Legal Studies
Open University of Sri Lanka

Ms. Deepthika Kulasena

Deputy Legal Draftsman
Legal Draftsman's Department
Sri Lanka

1045 – 1050 Hrs

Introduction of the Chair

1050 – 1100 Hrs

Preliminary Remarks by the Chair

1100– 1115 Hrs

**Unravelling Murder Mysteries: Role of Analysis
Techniques in Sri Lanka**

H de Silva

1115 – 1130 Hrs

**An Analysis of the Existing Legal Regime and Law
Enforcement Mechanism of Transnational
Organized Crimes in Sri Lanka and National
Security Implications**

TC Kathriarachchi

1130 – 1145 Hrs

**Dilemma on Ensure Criminal Justice through
Rehabilitation: Critically Evaluation the Legitimate
Expectations of the Drug Depended Persons
Treatment & Rehabilitation Act No 54 of 2007**

SW Siriwardena

- 1145 – 1200Hrs **An Appraisal of the Existing Law for Victim Justice in the Administration of Criminal Justice in Sri Lanka**
MADSJS Niriella
- 1200 – 1300Hrs **Lunch Break**
- 1300 – 1315 Hrs **The Dilemma of Murderous Mothers; Applicability of Postpartum Psychosis as a Defence under Criminal Law of Sri Lanka**
AH Wijayath
- 1315- 1330Hrs **The Social Impact of the "Janatha Aragalaya 2022" Movement on Law Enforcement in Sri Lanka**
KGL Chamuddika
- 1330– 1340Hrs Summing up by the Session Chair

CRIMINAL JUSTICE

Technical Session II : Criminal Justice

Venue: LT01, 3rd Floor, Faculty of Medicine

Chairperson

Deshabandu Prof MADSJS Niriella

President - 16th International Research Conference

Dean- Faculty of Criminal Justice

General Sir John Kotelawala Defence University, Sri Lanka

Professor in Law

Department of Public and International Law

Faculty of Law, University of Colombo

Prof. (Dr) G.S. Bajpai

Vice Chancellor

National Law University of Delhi, India

Prof. (Dr) Anand Pawar

Vice Chancellor, Rajiv Gandhi University of Law

Patiala, Panjab, India

1400 –1405 Hrs

Introduction of the Chair

1405 – 1415 Hrs

Preliminary Remarks by the Chair

1415 – 1430 Hrs

The Utilization of Biological Sample by the Criminal Justice System in Sri Lanka: As Explanatory Study on Forensic Testing

S de Silva, D Wickramasinghe and M Fernando

1430 – 1445 Hrs

Poverty and Its Effects on Sex-Related Crimes

RPNHR Rajapaksha

1445 – 1500Hrs

Finding Causes of Most Prominent Types of Sexual Gender Based Violence: A Study from Gokarella Police Area

SMSS Samaradiwakara

- 1500 – 1515 Hrs **A Study on the Challenges Faced by the Respective Police Officials during the ‘Janatha Aragalaya’ (Public Unrest) in Sri Lanka**
UGDS Kariyawasam
- 1515– 1530 Hrs **Exploring the impact of the economic crisis on the livelihood of the Up-country Tamils (Malaiyah Tamils) in Sri Lanka**
EPD Madushanka
- 1530 – 1540 Hrs Summing up by the Session Chair
- 1540 - 1600 Hrs Refreshments

BUILT ENVIRONMENT & SPATIAL SCIENCES

Technical Session I: Spatial Sciences

Venue: Auditorium, Southern Campus, KDU

Chairperson	Associate Prof Ranmalee Bandara Senior Lecturer, Head of the Department of Surveying and Geodesy, Faculty of Geomatics, Sabaragamuwa University of Sri Lanka
1630 – 1635 Hrs	Introduction of the Chair
1635 – 1640 Hrs	Preliminary Remarks by the Chair
1640 – 1650 Hrs	Mapping of Human-Elephant Conflict Risk Zones: A Case Study of Sooriyawewa Divisional Secretariat Division, Sri Lanka PAMT Rupathunge, AR Rupasinghe, AH Lakmal, NV Wickramathilaka and PAT Hansamal
1650 – 1700 Hrs	Development of a Forest Resilience Index Combining Multispectral and Microwave Vegetation Indices GGH Priyadarshana and DR Welikanna
1700 – 1710 Hrs	Monitoring the Impact on Paddy fields during the Construction of the Southern Expressway using Remote Sensing GIS JAHD Jayasooriya, KA Dinusha, GP Gunasinghe and AKRN Ranasinghe
1710 – 1720 Hrs	Estimation of Above Ground Biomass in Sinharaja Forest Reserve, Using Sentinel Images LMYN Lankadhikara and AKRN Ranasinghe
1730 – 1750 Hrs	Question and Answer session
1750 – 1800 Hrs	Summing up by the Session Chair
1930 – 2200 Hrs	Conference Dinner

BUILT ENVIRONMENT & SPATIAL SCIENCES

Technical Session II: Architecture

Venue: Auditorium, Southern Campus, KDU

Chairperson	Arch. Dilumini De Mel Senior Vice President, Sri Lanka Institute of Architects, Sri Lanka
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0850 Hrs	Sustainability and High-Rise Design for the Future: Importance of Connectivity between Vertical Living and the Natural Environment BS Wijesinghe and SR Guneratne
0850 – 0900 Hrs	Impact of Designed Exterior- Built Environment in Enhancing the Well-being and Quality of Life of the Elders – A Case of Wellness Sanctuaries in Sri Lanka AD Amaraweera, Malthi Rajapakshe and MNR Wijetunge
0900 – 0910 Hrs	Sri Lankan Identity in Architecture: Perception of Lay People on Designed Sri Lankan House WAPS Kumara, KNK Pathirana and KDHJ Premarathne
0910 – 0920 Hrs	15-Minute City Concept for Designing Resilience Future Cities and the ‘New Normal’ of Urban Built Environment in a Post-Pandemic World SMM Sanjune, H Munasinghe, FR Arooz and MNR Wijetunge
0930 – 0950 Hrs	Question and Answer session
0950 – 1000 Hrs	Summing up by the Session Chair
1000 – 1030 Hrs	Refreshments

BUILT ENVIRONMENT & SPATIAL SCIENCES

Technical Session III: Quantity Surveying

Venue: Auditorium, Southern Campus, KDU

Chairperson	Prof. Yasangika Sandanayake Professor, Department of Building Economics, University of Moratuwa, Sri Lanka
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1050 Hrs	A Study on the Practicability of Expedited Arbitration on the Sri Lankan Construction Industry WANM Weerasinghe and KPSPK Bandara
1050 – 1100 Hrs	Waste Material Management on Building Construction in Sri Lanka; Mitigation of Concrete Waste Factor and Cost Effect During Construction Stage KHP Ruwanthi and AARK Amaratunga
1100 – 1110 Hrs	The Impact of Lean Construction Tools on Reduction of Contractor Related Causes of Delay in Sri Lankan Construction Industry KAOT Kalubovila, WN Kawmudi and AH Lakmal
1110 – 1120 Hrs	Reviewing the Possibility of Incorporating Mediation Method for Settlement of Contractual Disputes in the Construction Industry of Sri Lanka CH Waidyadasa, AARK Amaratunga and M Elvitigala
1130 – 1150 Hrs	Question and Answer session
1150 – 1200 Hrs	Summing up by the Session Chair
1200 – 1330 Hrs	Lunch

BUILT ENVIRONMENT & SPATIAL SCIENCES

Technical Session IV: Industrial Quality Management

Venue: Auditorium, Southern Campus, KDU

Chairperson	Prof. Saman Yapa Senior Lecturer, Department of Decision Science, Faculty of Management Studies and Commerce, University of Sri Jayawardenapura, Sri Lanka
1330 – 1335 Hrs	Introduction of the Chair
1335 – 1340 Hrs	Preliminary Remarks by the Chair
1340 – 1350 Hrs	Exploring ISO Standardization as a Quality Assurance Mechanism in Sri Lankan Higher Educational Sector WKD Ramesh, SD Jayasooriya and AH Lakmal
1350 – 1400 Hrs	Causes for Non-compliance of Made Black Tea with the Main-Relavant-Grade MNS Rajapakshe, K Amirthalingam and MD Samarasinghe
1400 – 1410 Hrs	Evaluating the Impact of Building Information Modeling on Optimizing Quality Management Process in the Construction Industry LADCN Wijesinghe, SD Jayasooriya and AGKMWS Atapattu
1410 – 1420 Hrs	Application of Lean Six Sigma to the Sri Lankan Construction Industry UM Samarathne, SD Jayasooriya, MLNH Premarathna and DB Karunarathna
1430 – 1450 Hrs	Question and Answer session
1450 – 1500 Hrs	Summing up by the Session Chair
1500 – 1530 Hrs	Refreshments

BUILT ENVIRONMENT & SPATIAL SCIENCES

Technical Session V: Spatial Sciences

Venue: Auditorium, Southern Campus, KDU

Chairperson	Dr. Milinda Piyasena Senior Lecturer, Department of Surveying and Geodesy, Faculty of Geomatics, Sabaragamuwa University of Sri Lanka
1530 – 1535 Hrs	Introduction of the Chair
1535 – 1540 Hrs	Preliminary Remarks by the Chair
1540 – 1550 Hrs	An Evaluation of Tropospheric Delay on GNSS Observation GAMH Gamaarachchi, KP Manuranga, RGUI Meththananda and CP Ranawaka
1550 – 1600 Hrs	Soil Erosion Assessment Using RUSLE & ANN Models and Identifying the Correlation by Landslide Frequency Ratio Method: A Case Study of Kalu river Catchment of Sri Lanka NMO Madushani and AKRN Ranasinghe
1600 – 1610 Hrs	Anakysis of Hambanthota Coastal Zone Infringements Enforced by coast Conservation and Coastal Resource Management Using Remote Sensing AI Alahakoon, KA Dinusha and KP Manuranga
1610 – 1620 Hrs	The Effect of Sesonal Variability in Mean Sea Level and Tidal Constituents: A Case Study in Sri Lanka WGD Sandaruwan and MDEK Gunathilaka
1630 – 1650 Hrs	Question and Answer session
1650 – 1700 Hrs	Summing up by the Session Chair
1700-1730 Hrs	Awarding and Session Conclusion

BASIC AND APPLIED SCIENCES

Technical Session I

Venue: LL3, 4th Floor, Faculty of Medicine

- Chairperson** **Prof. Charitha L Goonasekara**
Professor, Department of Preclinical Sciences, Faculty of Medicine, Dean – Faculty of Graduate Studies and Dean – Research and Development, General Sir John Kotelawala Defence University, Sri Lanka
- 0830 – 0835 Hrs Introduction of the Chair
- 0835 – 0840 Hrs Preliminary Remarks by the Chair
- 0840 – 0855 Hrs **A Cross-Sectional Study to Determine the Association Between the Sleep Quality and Meal Patterns of Undergraduates of a Selected Educational Institute in Sri Lanka**
SN Bandara, GU Jayaweera
- 0855 – 0910 Hrs **Stakeholders’ Perceptions on Adoption of Eco-Friendly Technologies to Minimize Chemical Fertiliser Use in Paddy Farming**
YS Delile, UK Jayasinghe-Mudalige, RS Dharmakeerthi, and WS Dandeniya
- 0910 – 0925 Hrs **The Impact of COVID-19 on Major Sectors in the Sri Lankan Economy**
KGN Senanayaka, RAB Abeygunawardana
- 0925 – 0940 Hrs **Developing a Sulfur-based Antifungal Solution for Dermatophytosis and Assessment of its Antifungal Activity in-vitro against Microsporum canis – A Pilot Study from Sri Lanka**
HWCS Dharmasiri, DMPI Wijayarathna, PAU Eranga, MN Jayawardena, HMAJ Halahakoon, and GU Jayaweera

- 0940 – 0955 Hrs **Signal to Noise Ratio Analysis for Potential versus Time of the Under-Utilized Fruit Plant *Dovyalis hebecarpa* (Ketambilla) Under the Stimulus of Moisture Supply**
ST Warusavithana, JAS Chathurika, RGPT Jayasooriya, and NPW Rathuwadu
- 0955 – 1010 Hrs **Green Synthesis of Graphene via Electrochemical Exfoliation**
ON Malawalaarachchi, NPW Rathuwadu
- 1010 – 1015 Hrs Summing up by the Session Chair
- 1015 – 1030 Hrs Refreshments

BASIC AND APPLIED SCIENCES

Technical Session II

Venue: LL3, 4th Floor, Faculty of Medicine

Chairperson	Prof. Ashoka Dangolla Professor, Department of Veterinary Clinical Science, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, Sri Lanka
1030 – 1035 Hrs	Introduction of the Chair
1035 – 1040 Hrs	Preliminary Remarks by the Chair
1040 – 1055 Hrs	Effect of Sugar Component Changes During Processing of High Grown Black Tea using High Performance Liquid Chromatography Technique KTGD Darshika, LB Dunsford, KRW Abeywickrama, and B Gajanayake
1055 – 1110 Hrs	Microbiological Quality of Commercially Available Ready-To-Eat Meat Street Food Doner Kebab in Colombo District, Sri Lanka DIY Mahawatte, SS Kudagodage, PGNT Rajakaruna, ETDM Weerasinghe, HMPMW Bandara, ODK Perera, and VA Bodhinayaka
1110 – 1125 Hrs	Impact of Domestic Cooking Process on Total Phenolic and Total Flavonoid Contents in Selected Commercially Available Rice (<i>Oryza sativa</i> L.) Varieties in Sri Lanka WDJW Gunawardana, SA Gunawardana, NDA Wageesha, IC Perera, and C Witharana
1125 – 1140 Hrs	The Effect of Genetic Introgression on Phenotype in <i>Dicrurus Drongos</i> Across a Climatic Gradient in Sri Lanka ADS Madumali, Sanjaya Weerakkody, Vimukthi Gunasekara, Devanmini Halwatura, and Sampath S Seneviratne

- 1140 –1155 Hrs **Hematology and Blood Parasites in Avian Communities Along an Altitudinal Gradient of 1 km in the Sub-Montane Zone of Sri Lanka**
Janani M Karunaratne, Maheshi Mapalagamage, SN Weerakkody, Vimukthi R Gunasekara, and Sampath S Seneviratne
- 1155 – 1200 Hrs Summing up by the Session Chair
- 1200 – 1300 Hrs Lunch



BASIC AND APPLIED SCIENCES

Technical Sessions III and IV

Venue: LL3, 4th Floor, Faculty of Medicine

Chairpersons	Snr. Prof. Hemanthi Ranasinghe Senior Professor, Department of Forestry and Environmental Science, Faculty of Applied Sciences, University of Sri Jayewardenepura
	Prof. Prasanna Premadasa Dean, Faculty of Technology, General Sir John Kotelawala Defence University
1300 – 1305 Hrs	Introduction of the Chair
1305 – 1310 Hrs	Preliminary Remarks by the Chair
1310 – 1325 Hrs	Antifungal Efficacy of Biogenic Waste Derived Colloidal/Nanobiochar Against Colletotrichum gloeosporioides Species Complex Kulathi Nishshankage, PKC Buddhinie, and Meththika Vithanage
1325 – 1340 Hrs	Assessing the Efficacy of Pumpkin Waste-Mediated Zinc Oxide Nanoparticles in Enhancing Agro-Waste Valorization through Antioxidant Activity Evaluation AM Samudrika Aththanayake, T Gobika Thiripuranathar, and Sagarika Ekanayake
1340 – 1355 Hrs	Trichoderma Citrinoviride as a Potential Biocontrol Agent for Fusarium and Colleotrichum Species, a Causative Agent of Onion Leaf Curl and Anthracnose Disease Ambalikka Kulakalaharan, Himali. S Jayasinghearachchi

- 1355 – 1410 Hrs **Effects of Banana Leaves and Paddy Straw on the Growth, Nutrition Composition, Bioactive Compound Levels, and Antioxidant Activity of Pleurotus ostreatus (American oyster mushroom)**
Dilshani Liyanage, Geethika SG Liyanage
- 1410 – 1425 Hrs **In silico Distribution Analysis of Chromosomal CpG Islands in Rice (*Oryza sativa* L. spp. japonica)**
MAU Karunarathne
- 1425 – 1440 Hrs **Evaluation of Native Rhizobia as Potential Candidates for Developing Biofertilizers for Improving Legume Cultivation in Dry Zone Sri Lanka**
WPT Wijenayake, PAIU Hemachandra
- 1440 – 1455 Hrs **Bioassay on the Stability of Pigments Extracted by Bacteria Isolated from Wastewater**
MB Abeykoon, AMKCB Aththanayake
- 1455 – 1510 Hrs **Weathering of Plastic Nurdles Discharged from the X-press Pearl Ship Disaster**
Malith Mihiran Perera, Madushika Sewwandi, Hasintha Wijesekara, and Meththika Vithanage
- 1510 – 1525 Hrs ***In-vitro* Cytotoxicity Assessment of Glyphosate in the Vero Cell Line**
A Premkumar, HASN Abeysiri, and Pathmalal M Manage
- 1525 – 1540 Hrs **An in vitro Investigation of *Zanthoxylum rhetsa* (Thanahalu) and Its Anti-cancer Potential Against MCF7 and DLD1 Cancer Cell Lines**
Mihiri R Jayasinghe, Kalpa W Samarakoon, and Anchala I Kuruppu
- 1540 – 1550 Hrs Summing up by the Session Chair
- 1550 - 1600 Hrs Conclusion
- 1600 Hrs Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session I: Management and Finance

Venue: 6 – 1, New FMSH Building

Chairperson	Prof. Nalin Abeysekera Department of Marketing Management, Faculty of Management Studies, Open University of Sri Lanka.
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0855 Hrs	The Usage of E-Procurement in Sri Lanka Apparel Supply Chain and its Impact: A Case Study DN Kahaduwa
0855 – 0910 Hrs	Leadership, Green Human Resource Management and Green Employee Engagement: Navigation of Sri Lanka Navy HK Dassanaiké, YA Iddagoda, H Dissanayake, and MPN Janadari
0910 – 0925 Hrs	Customer’s Perspective on Dynamics of Digital Transformation in the Bank Industry of Sri Lanka ND de Zoysa, HAKNS Surangi, GKS Nimeshi, and RS Ranwala
0925 – 0940 Hrs	Factors Affecting the Effective Usage of Medical Equipment in Sri Lankan Hospitals RADVS Ranasinghe
0940 – 0955 Hrs	The Impact of Logistics Function on the Performance of an Organization ALCHT Perera, MPRR Somarathne, and OK Edirisinghe
0955 – 1005 Hrs	Questions and Answer Session
1005 – 1020 Hrs	Summing up by the Session Chair
1020 – 1040 Hrs	Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session II: Management and Finance

Venue: 6 – 1, New FMSH Building

Chairperson	Prof. MPN Janadari Department of Management and Finance, Faculty of Management Social Sciences and Humanities, General Sir John Kotelawala Defence University
1300 – 1305 Hrs	Introduction of the Chair
1305 – 1310 Hrs	Preliminary Remarks by the Chair
1310 – 1325 Hrs	Impact of Bank Finance, Government Support and Psychological Factors on Start-up Decision Making in Sri Lanka: Special Reference to Homagama Division T Jayathissa, R Samarawickrama, N Jayathilake, D de Alwis, KR Ambepitiya, and TV Kelaniyage
1325 – 1340 Hrs	A Comparative Study on the Opportunities and Challenges of Blockchain Implementation in Logistics and Supply Chain Operations in Sri Lanka KJRRW RAMAN Atipola, WKD Tharuka, RMK Silva, and ASP Ilangasekara
1340 – 1355 Hrs	A Quantity Estimated Method to Measure Flow of Nodes in a Freight Transport Network RAA Vishwanath, JCD Gunawardhana, DOD Siriwardhana, MKD Yethmina, and AHS Sharic
1355 – 1410 Hrs	Adaptation of Blockchain Technology in the Banking Sector in Sri Lanka: Opportunities and Challenges DN Bandulahewa, EASS Edirisinghe, PGAD Ranasinghe, and ASP Ilangasekara
1410 – 1425 Hrs	Influence on E-Service Quality of E-Tailors on E-Satisfaction and E-Repurchase Intention on Consumer Electronics Purchase Behaviour:



Examining the Moderate Impact of E-Word-of-Mouth in Sri Lanka

RK Kasunthika

1425 – 1435 Hrs	Questions and Answer Session
1435 – 1450 Hrs	Summing up by the Session Chair
1450 – 1510 Hrs	Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session I: Social Sciences

Venue: 6 – 2, New FMSH Building

Chairperson	Prof. Nihal Perera Emeritus Professor of Urban Development Ball State University, USA
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0855 Hrs	Female Visionary Leaders for Development: A Sociological Reading on Importance vs Reality of Gender, Development and State University Education in Sri Lanka – A Case Study PKGIL Ranasinghe
0855 – 0910 Hrs	Social Importance to Encourage Sri Lankan Elders to Play Computer Games BMTN Rathnayake and GIF de Silva
0910 – 0925 Hrs	Analyzing the Economic Impact of Brain Drain and Migration in Sri Lanka MWGJ Gunasekara, MACA Wijerathne, GD Maussawa, RAD Maduranga, S Thelijjagoda, and CN Wickramarachchi
0925 – 0940 Hrs	Study on How Technological Development and Digital Transformation are Applied in Social Organizations in Transforming Themselves to Gain Efficiency and Leadership Competency CA Chrishanthan
0940 – 0955 Hrs	Landslide for Education; A Case Study from the Mitigated Landslide at Kahagalla, Haputhale C Senavirathna and P Jayasinghe



0955 – 1010 Hrs

**Exploring the Role of Anonymous Social Media Posts
in Empowering Women Affected by Deception and
Infidelity: A Qualitative Study**

K Anuradha, RPS Kathriarachchi, PRD Wijesinghe, and
MVT Kawya

1010 – 1020 Hrs

Questions and Answer Session

1020 – 1035 Hrs

Summing up by the Session Chair

1035 – 1055 Hrs

Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session II: Social Sciences

Venue: 6 – 2, New FMSH Building

Chairperson

Prof. P Hewage

Emeritus Professor, Department of Social Sciences,
Faculty of Management, Social Sciences and Humanities,
General Sir John Kotelawala Defence University, Sri
Lanka

1300 – 1305 Hrs	Introduction of the Chair
1305 – 1310 Hrs	Preliminary Remarks by the Chair
1310 – 1325 Hrs	The Importance of Social Work as a Practising Profession to Enhance Gender Mainstreaming in Sustainable Development in Sri Lanka VM Fernando
1325 – 1340 Hrs	A Literature Survey on Facebook Intrusion: Predictors and Effects MPM Waleboda, SS Rodrigo, and C Dedduwage
1340 – 1355 Hrs	Hyperousiology of Nāgārjunian Philosophy: A Hermeneutical Reading JDA Kumara
1355 – 1410 Hrs	Towards the Conceptualization and the Operationalization of the Construct of Occupational Stress MHR Sandeepanie, PN Gamage, GDN Perera, and TL Sajeewani
1410 – 1425 Hrs	Effectiveness of Progressive Muscle Relaxation in Managing Adjustment Disorder among Apparel Sector Employees in Sri Lanka P Jayatilake, L Liyanage, and PW Gunathunga
1425 – 1435 Hrs	Questions and Answer Session
1435 – 1450 Hrs	Summing up by the Chair
1450 – 1510 Hrs	Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session I: Literature and Education

Venue: 5-2, New FMSH Building

Chairperson	Dr. Romola Rassool Director, Post Graduate Institute of English, The Open University of Sri Lanka
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0855 Hrs	Identifying the Improvement of Gross Motor Skills of Preschool Children in Monaragala District MRMA Jayasinghe, and DMCN Madhumali
0855 – 0910 Hrs	The Effect of Utilising Poetry Translation Strategies in Poetry Translation: with Reference to Selected Published Poetry Translations from English into Sinhalese MDS Mahawaththa, and NM Wijebandara
0910 – 0925 Hrs	Portfolios as a Student-Assessment Tool: A Study Based on Higher National Diploma in Engineering Students at Advanced Technological Institute, Anuradhapura PJ Jayasekara
0925– 0940 Hrs	The Digital Transformation of Higher Education in Sri Lanka due to Covid -19 DUTASD Thenuwara, LKK Sanjani, and KHAN Anuththara
0940– 0950 Hrs	Questions and Answer Session
0950– 1005 Hrs	Summing up by the Session Chair
1005 – 1025 Hrs	Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session I: TESOL

Venue: 5-3, New FMSH Building

Chairperson

Dr. Darshana Samaraweera

Deputy Director General, National Institute of Education, Sri Lanka

- | | |
|-----------------|---|
| 0830 – 0835 Hrs | Introduction of the Chair |
| 0835 – 0840 Hrs | Preliminary Remarks by the Chair |
| 0840 – 0855 Hrs | Analysis of Technology Utilization in Sri Lankan State Universities' English Teaching and Learning Process
HMCP Jayawardena |
| 0855 – 0910 Hrs | Sri Lankan English as the Standard/ Model for Language Assessment in English Language Teaching in Sri Lanka: Understanding Tertiary Level Teacher Resistance
EMPE Ekanayake |
| 0910 – 0925 Hrs | Effectiveness of Teaching Vocabulary Using Presentation, Production and Practice Approach in a Blended Learning Environment
GK Nayanathara, RLABD Nilmanthi, DAAKL Dassanayake, and SMR Raleesha |
| 0925 – 0940 Hrs | Technology Mediated Vocabulary Assessment in Second Language Teaching
GHGP Poornima, and SM Gamage |
| 0940 – 0955 Hrs | Investigating the Integration of Blended Learning Tools to Provide Formative Feedback on Students' Writing in Secondary Level English Language Teaching Textbooks in Sri Lanka
RATP Rajapaksha, KJAVO Jayakody, and NM Ranasinghe |
| 0955 – 1005 Hrs | Questions and Answer Session |
| 1005 – 1020 Hrs | Summing up by the Session Chair |
| 1020 – 1040 Hrs | Refreshments |

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session II: TESOL

Venue: 5-3, New FMSH Building

Chairperson	Prof. Chitra Jayathilake Department of English and Linguistics, Faculty of Humanities and Social Sciences, University of Sri Jayewardenepura, Sri Lanka
1300 – 1305 Hrs	Introduction of the Chair
1305 – 1310 Hrs	Preliminary Remarks by the Chair
1310 – 1325 Hrs	Detailed Study Based on the Effect of the Official Language Policy of Sri Lanka towards English Language Usage in the Land and District Registry (LDR); Nuwara-Eliya District HMR Gunawardana, and SK Amarasena
1325 – 1340 Hrs	Teaching of Idiomatic Expressions in Teaching English as a Second Language in Sri Lanka SD Peththawadu, ARWMMWP Amarakoon, and NMTA Perera
1340 – 1355 Hrs	Factors to Consider: Promoting Speaking Competence of National Languages of Sri Lanka UGWR Jayathilleka, WE Hidellararachhi, and VU Jayasinghe
1355 – 1410 Hrs	Investigating the Features of Academic Writing in Research among Undergraduates RVARK Pathirana, and SS Lokuliyana
1410 – 1420 Hrs	Question and Answer session
1420 – 1435 Hrs	Summing up by the Session Chair
1435 – 1455 Hrs	Refreshments

MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

Technical Session I: Data Sciences

Venue: 4-3, New FMSH Building

Chairperson	Dr. Samantha Mathara Arachchi University of Colombo School of Computing
0830 – 0835 Hrs	Introduction of the Chair
0835 – 0840 Hrs	Preliminary Remarks by the Chair
0840 – 0855 Hrs	Negative Effects of Integrating ChatGPT in the Higher Education System Concerning Achieving Resilience through Digitalization, Sustainability, and Sectoral Transformation AHDB de Silva, RSP Ranasinghe, and MRM Rihan
0855 – 0910 Hrs	Understanding the Phenomenon of Brain Drain: An In-depth Analysis of the Emigration Patterns and Implications for IT Professionals in Sri Lanka M Marzook, R Weerasinghe, T Jayawardana, and V Weerasinghe
0910 – 0925 Hrs	Intelligent Traffic Management System for the Development of Smart Cities in Sri Lanka MU Sathyanjalee
0925 – 0940 Hrs	Evolving towards the Future: Internet of Things-Based Precision Aquaculture System LNNA De Silva
0940 – 0955 Hrs	A Clustering Method to Identify Mental Health Patient Groups with Similar Treatment Outcomes K Senarathne, V Weerasinghe, and L Salgado
0955 – 1010 Hrs	Development of an Intelligent Software Solution for Artificial Intelligence Enabled Stethoscope: Accurate



Coronary Artery Disease Diagnosis and Real-Time Feedback

JKAT Damsuvi, and BCT Wickramasinghe

1010 – 1020 Hrs	Questions and Answer Session
1020 – 1035 Hrs	Summing up by the Session Chair
1035 – 1100 Hrs	Refreshments



POSTER PRESENTATIONS

07th & 8th September 2023

DEFENCE AND STRATEGIC STUDIES

7th September

Poster session I

Unleashing the Power of Strategic Communication: A Shield Fortifying National Security

H de Silva

Heroes Behind the Hazmat: Chemical, Biological, Radiological and Nuclear Combat Engineers Dominating the Pandemic Battlefield

LS Panditharathna

The Use of Soft Power in the Diplomacy of the Holy See

TM Samarathunga

Potential Expansion of Sri Lanka's Ports to Optimize Advantages from Global Supply Chain

TN Halpe

Post Liberation Tigers of Tamil Eelam Threat in Sri Lanka; Change in *Modus Operandi*

H de Silva

Geographic Information System Mechanism for the Terrain Overlay of the Intelligence Preparation of Battlefield Process

KWGIM Kalugamuwa, HWW Ranasinghe and KUJ Sandamali

Maritime Choke Points and its Impact on Global Economy A Comprehensive Analysis

IS Kudaligama

Poster session II

Impact of Kalinga Maga Invasion in Sri Lanka History

WCSD Fernando, HMTU Herath, KA Madubashini and WMNC Weerasekara

National Security Policy 2030: Internal and External Challenges

RDCP Rajapakshe, DDMK Dunuwila, WAIA Wickramanayake and RABA Rajapaksha

An Assessment on Security Challenges Posed by Muslim and Sinhala Buddhist in Sri Lanka

DMNT Digala

Marine Environmental Pollution: A Case Study on the Indian Ocean Region

MHN Wijesinghe

The Impact of Biological and Chemical Warfare on Human Security: A Humanitarian Law Perspective

BAIM Jayawardane

Understanding the Geopolitical Rivalry between India and China in South Asia: Implications for Regional Stability and Power Dynamics

KAW Kumarasingha



MEDICINE

8th September

Unmasking the Psychological Battle: Psychotherapy Treatments in Sri Lankan Military Veterans

NHD De Silva

Immunogenicity of Dengue E-protein Peptides Modified with Para-nitro Phenylalanine

M Nadugala, PH Premaratne, and CL Goonasekara

Diversity of Culturable Aerobic Bacteria in the Midgut of Filariasis Vector, Culex quinquefasciatus Adults in Gampaha District, Sri Lanka

HEMRTK Hathnagoda, PA Goonathilake, KAT Buddhinee, WDP Welgama, PKHNGunarathna, HAK Ranasinghe, and EHL Perera

Molecular Identification of Vector Mosquitoes of Dirofilariasis in Matale District, Sri Lanka

HAK Ranasinghe, HGNT Rathnayaka, PMB Pannila, DV Wickramarathne, NS Kudhoos, PWD Kasurika, and EHL Perera

Intervention of 5A Smoking Cessation Method at Eastern Naval Area in 2021/22

HDI Samarawickrama, PGWWK Wanasinghe, WHT Priyadarshani, and DPK Arachchige

Prevalence and Associated Factors of Selected Cardio-respiratory Symptoms and Peak Expiratory Flow Rate Measurement among Carpenters in Moratuwa Medical Officer of Health area

KDBRI Jayaweera and I Suraweera

Comparative Evaluation of Disc Diffusion eMeasurements with Minimum Inhibitory Concentration values in Meropenem Susceptibility of Enterobacteriaceae Isolates

SS Denagamagei, T Senaratne, AWGSN Jayathilaka, and D Nakkawita

Microscopic Identification of Gastrointestinal Parasitic Infections; Incidence among Selected Communities in Western Province and Central Province.

SP Diyunugala, US Kulasekara, PH Premaratne, W Abeywickrema, KO Bandaranayaka, GDI Rodrigo and P Jayasekera

Bioequivalence of Metformin Hydrochloride USP XR 500 mg (Generic, Gamma Interpharm Pvt Ltd,) and the Comparator Glucophage XR 500 mg Oral Tablets (Merck Sante S A S, France), in Sri Lankan Healthy Subjects Under Fasting Conditions

RD Piyathilaka, P Jayasekara, J Munasinghe, US Kulasekara, DGP Kawyangana, PM Athauda-arachchi, D Govindapala, HS Jayasinghearachchi, and R Fernandopulle

Knowledge, Attitude and Practices with regard to the Use of Facemasks in the Prevention of Covid-19 and Other Respiratory Illnesses Among General Public in Sri Lanka

OSM Perera, MH Sally, HAK Ranasinghe and AI Abeykoon

Psychosocial Climate of the Sri Lanka Army in Relation to Burnout Prevention: A Qualitative Study

PASD Jothipala, S Semage, T Agampodi and A Balasuriya

Diagnostic Utility of Ultrasound Scanning in the Preoperative Diagnosis of Thyroid Nodules

KMHK Kulatunga, AA Pathirana, SSN Fernando, BD Gamage, A Epa, MKA Sampath, C Sosai, and BS Senevirathna

Evaluation of the Results of In-vitro Primary Antimicrobial Susceptibility Testing for Positive Blood Cultures with Enterobacteriaceae According to Clinical Laboratory Testing Standards Institute ABST Guidelines

MVAP de Silva, MKT Nimeshi, EADK Wathsala, HWAD Premathilaka, ICMD Mishel, LH Walpola, and K. Jayatilleke



ENGINEERING

(8th September)

Automatic Clothesline Retrieval System for a Balcony

OU Gunathilake

Design and Fabrication of a Coconut Sorting Machine

DNR Perera, RMAM Rajapaksha, KGC Harsan, DHRJ Wimalasiri, and PPSS Pussepitiya

Aerodynamic Performance of Smooth Selectively Superhydrophobic Flat Plates: A Numerical Approach

VC Perera and SLMD Rangajeeva

Implementation of Arduino based Internet of Things Home Automation Systems in Sri Lanka

DC Hewavitharana

Gripper-Enhanced Fabric Cut Piece Sorting System based on Defects

DC Hewavitharana, LTUD Wickramathunga, TNN Rajapaksha, PSH Pallemulla, and HDI Piyumini

Development of Intelligent Outdoor Camera Sabotage Detection System for Large Scale Camera Systems using Deep Learning

KAUR Marapana, SMKK Siriwardhana, MS Dunukewila, HKAYD Kodithuwakku, and TL Weerawardane

Review on Intra-Body Communication using Galvanic Coupling for Wearable Devices

SD Kommalage and WPLK Wijesinghe

Indoor Human Following Assistive Robot with Fall Detection Capability for the Elderly and the Differently Abled

SL Seneviratne, BCJ De Zoysa, AMSE Senaratne, EC Padmasiri, and PSH Pallemulla

Design and Develop an E-Rickshaw as a Sustainable Energy Solution

MCP Dissanayake, KREMSB Ekanayaka, RDMHM Ariyaratne, and MCH Chandrasiri

Development of a Novel Sanitization Method for Aircraft Lavatory

A Prabhakaran, D Jayatillake, and TGT Peiris

Software Defined Radio Based Drone Detection using Machine Learning Algorithm

WMH Bandaranayake and HHC Gunathilaka

Continuous Blood Glucose Monitoring Techniques: A Review

NMS Irugalbandara and IMCWB Kohombakadawala

Development of an Efficient Automated Tea Making Machine with Customized Ingredient Levels

RPNV Randeniya, ADPV Jayathilake, EMUP Ekanayake, PNA Fernando, and IM Akarawita

Modern Accident Alert System for Vehicles using Global Positioning System Technology

PDTN Dakshina and RMCP Ranasinghe

Advances in Muscle Fatigue Detection: A Comprehensive Review

GACS Gurugoda, BMAT Perera, DMGM Dissanayake, and IMCWB Kohombakadawala

Review on Mathematical Models used to Estimate Inner Temperature Variations of Female Breast

PLLM Alwis and WPLK Wijesinghe

Smart Gas Leak Management System

BMDP Rathnayake, RMCP Ranasinghe, and ERMCK Rajapaksha

Development of an Automated Clothesline System

ML Saputantri, GK Dhananjaya, JACA Perera, and UAND Ubaysiriwardana

Water Treatment Efficiency of Aerator and Roughing Filter in Treating Groundwater : A Case Study in Mullaitivu of Sri Lanka

ME Sutharsan and N Anoja

Barriers for Pedestrian Related Road Crash Analysis in Identifying Engineering Countermeasures

TWKIM Dias

COMPUTING

7th September

The Impact of Agile Practices on Software Evolution in Startup Companies

NTD Dharmasiri, PKBTD Pallawala, and BNS Lankasena

A Review of Developing a Web-based Application for Job Recommendation using Selected Job Portals

PKBTD Pallawala, WMJI Wijenayake, and SCM de S Sirisuriya

Identification of Related Technologies Associated with Asthmatic Wheeze Detection System: A Review

DP Deraniyagala, GAI Uwanthika, and MKP Madushanka

Augmented Reality for Enhanced Performance in Footwear Shopping Applications: A Comparative Analysis

SHIDN de Silva, MTA Wickramasinghe, and D Gunasekara

A Review of Methods used for Health Prediction and Monitoring Utilizing Electronic Medical Records (EMR) System

SP Jayasekera and LP Kalansooriya

Implementing an Intelligent Patient Care System utilizing Machine Learning to Advance Healthcare Practices and Patient Outcomes

SP Jayasekera and LP Kalansooriya

Home Garden-based Ayurvedic Plant Identification System using Convolutional Neural Networks, A Review

NTD Dharmasiri and WKMS Ilmini

NUTRICARE: Optimizing Personalized Diet Recommendation through a Knowledge-based Approach

PHN Muthumali, WMKS Ilmini, and GRNN Waidyarathna

Effective Identification and Cessation of Tobacco Consumption using Gesture Analysis – A Review

BAK Vinsura, RM Aratchige, and B Hettige

Artificial Cognition-based Medical Diagnosis and Treatment Recommendation System: A Review

NTD Dharmasiri, NWAGN Nanayakkara, UI Abeyasinghe, NS Wisidagama, ML Karunaratne, and DDM Ranasinghe

Predictive Models for Monetary Asset Price Evaluation: A Comparative Review

JR Senadheera, MKP Madushanka, and HRWP Gunathilake

A Comprehensive Study on Software Evolution in Plan-driven and Agile Methodologies

NS Wisidagama, ML Karunaratne, PDCJ Paranagama, RMDKN Rathnayake, and BNS Lankasena

Reviewing the Performance of Data Classification using Modern Convolutional Neural Network Architectures

NTD Dharmasiri, NS Wisidagama, ML Karunaratne, and TL Weerawardane

Enterprise Resource Planning based Effective Automated Facility Management System for Local University Accommodation

MTRR Sirithunga and N Wedasinghe

Conceptual Framework for a Blockchain-based Medication Supply Chain Tracking System: Enhancing Trust and Security

GMT Amarasinghe and LP Kalansooriya

The Potential of Blockchain-based Ridesharing System to Enhance Trust and Security: A Conceptual Framework

LHD Tharuka and HRWP Gunathilake

Drone-based Internet of Things for Smart Agriculture: A Review

RGGA Rathnayake and B Hettige

A Review on Leveraging Technology for Enhanced Pregnancy Care

HAA Sanja, ADAI Gunasekara, and MKP Madushanka

Investigating the Impact of Software Maintenance Activities on Software Quality: Case Study

VP Pamunuwa, DP Deraniyagala, VTB Kulasekara, RDAV Thennakoon, and BNS Lankasena

Review on Feasibility of Building an Explainable Artificial Intelligence Model For Anti-phishing Detection

YLDH Yakandawala and MKP Madushanka

Lymphoma and Necrotizing Lymphadenitis Genes Detecting Software

SMAU Serasinghe and B Hettige

Awareness of Privacy Issues in the General Community: An Investigation Study

R Chandraprakash, KDRM Munasinghe, and N Wedasinghe

Understanding User Preferences for Music Player Elements: A Kansei Engineering Approach Towards Designing an Optimal Music Player

MKMGPA Jayasinghe, PDBD Gunatilake, JMCT Jayamanna, LTD Ambawatte, MKN Ranasingha, and LP Kalansooriya

Investigating the Application of Kansei Engineering Principles in Mazda Car Design: A Review

HTS Caldera, AMYN Amarakoon, HMG Divyanjalee, SMAU Serasinghe, AGLAD Tharusha, and LP Kalansooriya

A Web-based Learning System for the Japanese Language Proficiency Test in Sri Lanka

KC Rajapaksha, RPS Kathriarachchi, and PRD Wijesinghe

Application of Artificial Intelligence in Prosthetics: A Review

HKA Geethanjana and B Hettige

Advancements in Breast Cancer Detection: Exploring Machine Learning Techniques for Accurate Diagnosis and Early Detection

MASD Munasinghe and WJ Samaraweera

Real-time Taxi Demand and Supply Prediction-based on Specific Geolocations using Machine Learning - A Systematic Literature Review

AA Abeysekara, SG Sumanasekara, SMDD Samaraweera, WAC Imasha, ASYH Mihiran, ADAI Gunasekara, DU Vidanagama, SMM Lakmali, KD Madhubashini, and HRWP Gunathilaka

LAW

7th September

Adequacy of Constitutional Provisions in Sri Lanka to Recognize Custodial Death as a Violation of Right to Life: A Comparative Analysis with India

RTS Sasantha and KGB Prasadika

Legal Aspects of Challenges and Privacy Concerns in Establishing and Maintaining of Forensic DNA Database in Sri Lanka

SM Rathnayake, YM Mayadunne and KO Liyanage

Intellectual Property Law vs. Human Rights Law: A Re-examination of the Relationship between Two Distinct Legal Regimes in light of Digitalization and Sustainability

MMM Shihan

The Legal Protection of Coral Reefs in Sri Lanka: A Critical Analysis

BRSB Boraluwa



ALLIED HEALTH SCIENCES

7th September

Physiotherapy:

The Relationship of the Craniovertebral Angle with Pain and Activities of Daily living in Patients with Neck Pain attending the Department of Physiotherapy at Kotelawala Defence University Hospital Sri Lanka

HHH Lakshani, TPE Senevirathna, MKK Praboda, SADCS Senavirathna, and JLR Jayalath

Association of COPD Stages with Musculoskeletal Pain Sites and Mobility in COPD Patients at Central Chest Clinic in Colombo, Sri Lanka

HHJ Rupasinghe, HADS Perera, MKI Priyaranjana, FMD Chellapillai, and SADCS Senavirathna

The prevalence of Musculoskeletal Discomfort among Bank Officers in Selected Banks in Colombo District

WT Oshadi, C Pathmanathan, and KRM Chandrathilaka

Relationship between Musculoskeletal Pain and Stress Level of Secondary Teachers in Selected Schools of Matara district

MSW Dahanayake, C Pathmanathan, and KRM Chandrathilaka

Association of Hamstring Flexibility on Spinal Mobility and Health Related Quality of Life among Female Obese Undergraduates of Allied Health Sciences in General Sir John Kotelawala Defence University

SHSC de Silva, MBTB de Silva, RAG Sanjeevani, and ADP Perera



ALLIED HEALTH SCIENCES

7th September

Radiography and Radiotherapy:

Assessing Occupational Radiation Exposure in Interventional Cardiology: A Study on Effective Dose Estimation

HNSU Wickramasinghe, V Ramanathan, and S Sarasanandarajah

A Comparison of Gray Matter Structural Networks of Patients with Migraine and Healthy Subjects: A Graph Theory-Based Study

ADI Amarasinghe, DIH Wijewickrama, G Senanayake, KSR Pushpakumara, and WM Ediri Arachchi

Identification of the Factors Affecting on the Retention of ^{99m}Tc-DMSA in Syringes among Paediatric Population

DDN Wimalarathne, BES Jayasooriya, UHV Paramee, CS Wijesinghe, JMC Udugama, PDT Pathirana, and RANKK Samarasinghe

Establishment of Institutional Diagnostic Reference Levels for Whole-body PET/CT Imaging Procedures

AMLN Adikari, V Ramanathan, and R Tudugala

ALLIED HEALTH SCIENCES

7th September

Pharmacy:

***In Silico* Study of the Computationally Designed Novel Vinca Alkaloid Derivatives VADSPA01 and VADSPH01 Effects on Calmodulin and Calmodulin Dependent Ca²⁺ Transport ATPase**

HMAJ Halahakoon

Formulation and Evaluation of a Polyherbal Hair Dye Cream of the Aqueous and Ethanolic Plant Extracts of *Hibiscus rosasinensis*, *Coffea arabica*, *Syzygium aromaticum*, and *Cinnamomum zeylanicum*

KDHY Kottege, HMP Wimarshani, AGK Neranja, SU Kankanamge and RN Pathirana

Formulation Development and Analysis of Poly-herbal Antidiabetic Tablet Dosage Form

HHVKN de Silva, LCPT Liyanaarachchie and DBM Wickramaratne

Fabrication of Dermal Patch for Wound Care with Graphene Oxide Based Nanocomposites Loaded with Gallic Acid

FASS Pillay, KDKP Kumari and L Weerasinghe

Assessment of Antimicrobial Efficacy of Banana Peel (*Musa paradisiaca*) Extracts and Determination of Minimum Inhibitory Concentration against Selected Oral Pathogens

PGS Nirasha, MSM Manage, RKL Ranasinghe, MHF Shazina, M Parthipan, LH Walpola and KAA Dilhari

Microscopic Characteristics and Phytochemical Screening of *Crudia zeylanica*

IWAC Madusanka, LCPT Liyanarachchie, N Rajapaksha and C Sooriyabandara

ALLIED HEALTH SCIENCES

7th September

Medical Laboratory Sciences:

In vitro Evaluation of Anti-Inflammatory and Antibacterial Properties of Tuberos Roots of *Mirabilis Jalapa* Linn. Found in Sri Lanka

DSHS Peiris, DTK Fernando, SPNN Senadeera, AK Chandana, and CB Ranaweera

Assessment of In vitro Antibacterial and Anti-inflammatory activities of Sri Lankan Medicinal Plant *Jeffreyia zeylanica* (Pupula)

T Samaraweera, T Samaraweera, N Senadeera, and C Ranaweera

Antibacterial Effect of Aqueous Leaf Extracts of Lemon Grass Plant against *Staphylococcus aureus* and *Escherichia coli*

WHS Madushani, UDGW Wijesiri, NT Wewelwala, TD Drieberg, NWSM Gooneratne, A Nagahawatte, and D Sedara

Incidence of Diabetes Mellitus and Chronic Kidney Disease and Assessment of Risk Factors among Tuberculosis Patients Attended to the Chest Clinic, Regional Director's Office of Health Services, Badulla

WMYT Wijekoon, HA Rubera, H Pathiratna, DMCP Dissanayake, and JMKB Jayasekara

Risk factors, Incidents of Acute Kidney Injury and Liver Involvement among Leptospirosis Patients Admitted to the Teaching Hospital, Ratnapura

LSM Waidyasuriya, KKS Chathurangani, DD Wickramaratna, and JMKB Jayasekara

A Study on Incidence of Bacteria Fostering Blood Culture Positivity

HASD Chandrasena, ES Jayasuriya, HEH Perera, M Kothalawala, and RD Widanagamage



ALLIED HEALTH SCIENCES

7th September

Nursing and Midwifery:

Knowledge and Attitude of Pregnant Mothers toward Cesarean Section in Rural Community in Pallepola Division, Matale, Sri Lanka

NDGNN Jayasinghe and DMUM Dissanayake

Knowledge, Attitudes, and Practices about Responsive Care in Early Childhood among Public Health Midwives in Kandy District, Sri Lanka

WWR Hasanthika and RM Mudiyanse

Quality of Life of Breast Cancer Survivors of the University Hospital, Kotelawala Defence University, Sri Lanka

DT Wijethunga, AVML Perera, CM Abeywickrama, HMP Herath, and NRP Perera

Knowledge and Awareness of Cervical Carcinoma among Female Students aged 18 – 20 in selected Schools in Kalutara District, Sri Lanka

AD Jayathilaka, EMNM Bandara, UHDNN Senarathna, AS Withana, F Sanfara, DDY Rasanjane, and J Kottahachchi

Intestinal Parasitosis: Knowledge, Attitude, and Practices among Parents of Children aged 1-5 years in Hanwella MOH Area, Sri Lanka

MAF Hafsa, RADH Sandalika, RID De Silva, BKHJ Rodrigo, KMGGM Kulasekara, KMHH Kulathunga, MD Goni, and GGT Nisansala

Effect of Health-Literacy and Self-Management Efficacy on the Health-Related Quality of Life of Hypertensive Patients Attending a Tertiary Care Hospital in Sri Lanka

DMID Kumara, TS Amarasinghe, and WATA Jayalath



TECHNOLOGY

7th September

Venue: Faculty of Graduate Studies 3-1

Simulation Of Path Planned Differential Drive and Obstacle Avoidance Medicine Delivery Robot Using V-REP CoppeliaSim

MMP Fernando, WWMTNB Wijesundara, AMMGHTB Abeykoon,
EWSMDB Wickramasinghe

Synthesis and Characterisation of Phase Pure Hydroxyapatite from Bovine Bones

WAG Thilini, KMGP Premadasa

Evaluating the Energy Performance of Green Roofs and Their Potential for Reducing Building Energy Demands

NS Dikkumburage

Factors Influencing the Optimal Reintegration of Skilled Migrant Returnees in Gampaha District, Sri Lanka

KMD Seneviratne

Enhancing Road Safety for Motorcyclists: A Modified Helmet with Live Monitoring of Eye Aspect Ratio for Driver Drowsiness Detection

MDSP Nandakumara, IU Atthanayake, RMDS Rasnayake

BUILT ENVIRONMENT & SPATIAL SCIENCES

7th September

Architecture:

Assessing Benefits of Developing a Simulation Model for Sustainable Construction Using Life Cycle Assessment (LCA) Approach in Sri Lanka
KSKNJ Kudasinghe, KPSPK Bandara and MNR Wijetunge

Evaluation of a Cost-Effective Interior Flooring System Using Burnt Clay Brick for Residential Buildings
HDS Asoka and HT Rupasinghe

Typology Assessment of Burnt Clay Roof Tiles: A Case of Ancient Burnt Clay Technology in Sri Lanka
AARK Amaratunga, RU Halwathura, TD Mendis, SM Young, M Rajapaksha, A Judejollimson and AASP Amaratunga

Students' Perception of University Librarian Spaces; Evidence from Government Universities in Sri Lanka
SM Samaranayaka, FR Arooz and WP Abeyrathna

Use of Darkness in Religious Places – A Study of User Perception on Use of Darkness for Enhancing the Sense of Place
PADDK Panadura and NMRAT Nawaratne

Quantity Surveying:

A Case Study of Life Cycle Cost Comparison Between a Green Building and a Non-Green Building in Sri Lanka
CV Rajasekara, DVH Dodangoda, WN Kawmudi and KPSPK Bandara

Identification of Implementation Barriers of Building Information Modeling for Green Building Construction in Sri Lanka
WPI Perera and WN Kawmudi

Identification of the Implementation Issues of Value Management Concept to the Sri Lankan Construction Industry
HJC Senaviratne, WMYS Wijekoon, DMNN Dissanayake, UWS Adithya, DD Amarasinghe and WN Kawmudi

The Propriety and Limitations of Relying on Artificial Intelligence and Digitalization in the Field of Quantity Surveying, Sri Lanka

CD Weerakkody, DMS Jayasuriya and AR Rupasinghe

Impact of Risk Factors for Project Abandonment of Building Construction Projects in Sri Lanka

OU Kahaduwa and NDI Vithana

Enhancing the Effectiveness and Efficiency by Adopting Building Information Modelling in the Service Delivery of the Quantity Surveying Practice of Sri Lanka

WMCSK Wijesundara and AARK Amarathunga

Spatial Sciences:

Two-Dimensional Road Traffic Noise Mapping: A Case Study of Matara City in Sri Lanka

MD Alahakoon, NV Wickramathilaka, CP Ranawaka, AH Lakmal and CD Iddagoda

Study of Solar Radiation Variation over an Area using GNSS Observations-Spatial Reference to KDU Southern Campus

WMHP Sandanayake, KP Manuranga, AH Lakmal and HMI Prasanna

Assessment of Soil Erosion Using GIS Base Erosion Potential Method – A Case Study of Victoria Reservoir Watershed

EMGTGVD Premarathne and IAKS Illeperuma

An Assessment of Urban Expansion through the Integration of Remote Sensing Data and the Relative Shannon Entropy Model in GIS: A Case Study of Mirissa Tourism City in Sri Lanka

KSLS Hasara, NV Wickramathilaka, KUJ Sandamali, KM Chathuranaga and CG Malavipathirana

Accuracy Assessment of Land Use Mapping Methods – Spatial Reference to KDU Southern Campus

KTD Chandeepra, CD Iddagoda, KP Manuranga and KA Dinusha

A Geospatial Analysis of the Vehicle Parking System in Galle Fort

AMP Athukorala, AC Gunathilaka, KAIS Kuruppu, HHKT Bandulasoma, DMAP
Dissanayaka, JMO Jayamanne and KP Manuranga

Industrial Quality Management:

**The Impact of RIBA Plan of Work on the Quality of Projects in Sri Lankan
Construction Industry**

RMAR Rathnayake and SD Jayasooriya

**The Impact of BIM Software Application on the Quality of the
Construction Project Success: Special Reference to the Post Pandemic
Situation in Sri Lanka**

PSA Deemantha, SD Jayasooriya and AH Lakmal

BASIC AND APPLIED SCIENCES

7th September

1030 Hrs – 1230Hrs

Impact of Low Energy Availability and Menstrual Dysfunction of Women's Kho – Kho National Team in Sri Lanka

SALS Madhushika, RDAM Somarathna

Preliminary Study on the Association between FLT3 Ligand Level in Plasma and Peripheral White Blood Cell Counts in Non-Hodgkin Lymphoma Patients and Healthy Individuals

CK Nandasena, PWDCC Jayathilake, S Suresh, AD De Silva, IC Perera, and DU Kottahachchi

Molecular Docking Studies of Phytochemicals from *Persea americana* to Treat Alzheimer's Disease

MJ Ifran, LM Humaid

Enhanced Vector Transport of Ciprofloxacin by Aged Polyethylene Microplastics in the Presence of Organic Matter

TSS Gunasekera, M Sewwandi, H Wijesekera, AU Rajapaksha, S Soysa, N Nanayakkara, and M Vithanage

Microplastics in Beach Sediments of Kalutara Coastal line, Sri Lanka: Abundance and Characteristics

Ruwandi Nilakshi, Madushika Sewwandi, Anushka Upamali Rajapaksha, Dakshika Wanniarachchi, and Meththika Vithanage

Sri Lankan Grapes Used as Sensitizer in DSSC

MDPA Shakya, WTMPK Wanninayake, Rosantha Kumara, WP Siripala, RP Wijesundera, and KMDC Jayathilaka

Street Food Safety-Related Knowledge and Attitudes among University Students in Sri Lanka: A Cross-sectional Web-Based Study

VS Kodikara, RM De Silva, JHYP Nandapala, and NDK Ranadeva

Antioxidant Properties of Flavoured Ceylon Black Tea Consumer Packs

SSV Sumanadasa, WKSM Abeysekera, and K Ranjith W Abeywickrama

Screening the Radical Scavenging Activities of the Solvent Extracts from Brown Marine Algae: *Padina commersonii*

PDU Pavithra, AI Kuruppu, P Ranasinghe, and KW Samarakoon

Antioxidant Potential of Some Selected Underutilized Fruit Species Grown in Sri Lanka

LA Wickramaarachchi, AI Kuruppu, P Ranasinghe, T Herath, and KW Samarakoon

Screening of Antioxidant Capacity of *Pouteria campechiana* (Kaha laulu), *Psidium guineense* sw (Ambulpera) and *Aegle marmelos* (Beli) Fruit Carp Extracts; The Underutilized Fruits in North Central Province in Sri Lanka

DMHSK Doranegoda, S De Silva, FASS Pillay, RGPT Jayasooriya, KW Samarakoon, and KDKP Kumari

Antibacterial Activity of Different Fractions of Two Underutilized Fruit Crops in Sri Lanka: *Tamarindus indica* (Siyabala) and *Cynometra cauliflora* (Nam-Nam)

S De Silva, DMHSK Doranegoda, FASS Pillay, RGPT Jayasooriya, KW Samarakoon, and KDKP Kumari

***In vitro* Antioxidant and Anti-inflammatory Activity of “Denabadiya Kasaya”: A Traditional Polyherbal Formulation Used for the Treatment of Fever Including Dengue**

JK Handagala, N Kumarasinghe, CL Goonasekara, and AI Kuruppu

Anti-oxidant and Anti-inflammatory Activity of Various Crude Extracts of *Flacourtia inermis* (Lovi) and *Averrhoa bilimbi* (Billin) plants

Theja Virajini, Mithila Bandara, Prasad Jayasooriya, Kalpa W Samarakon, and Anchala I Kuruppu

A Comparative Analysis of Phytochemical Composition, Anti-oxidant and Anti-inflammatory Activity between *Garcinia quesita* and *Garcinia zeylanica* Fruit Rind by Five Extraction Methods

MA Sonali Marasinghe, Sampath Alahakoon, and Anchala I Kuruppu

Nest Site Selection, Cavity Characteristics, and Cavity Use of *Dinopium* Flamebacks in Sri Lanka

EDJ Chathurya, TSP Fernando, and SS Seneviratne

Determination of Pathogenic Bacteria in Commercially Available Fresh Green Leafy Vegetables in Western Province, Sri Lanka.

KGYO Vidushani, ODK Perera, and VA Bodhinayaka

Extraction and Characterization of Fibers from *Caryota urens* L. (Kithul) Leaves

EADSN Kumara, P Ranasinghe, and WKSM Abeysekera

Responses of Avian Communities to a Submontane Elevational Gradient

Ayeshma S. Adikari, Sandun J. Perera, and Sampath S Seneviratne

Biopriming of Rice Seeds with Plant-Growth-Promoting *Trichoderma citrinoviride* TRI103 Reduces Nitrogen Fertilizer Usage Under Greenhouse Conditions

Ambalikka Kulakalakaran, Himali S Jayasinghearachchi

The Taxonomic History, Geographical Distribution and Status of Sri Lankan Jackal

U Jayaweera, SS Seneviratne

Morphological, Vocal, and Genetic Characterization of *Motacilla flava* – *tschutschensis* Allospecies Complex in Sri Lanka

RM Nimasha S Samarasinghe, Gary Allport, SN Weerakkody, Vimukthi R Gunasekara, and Sampath S Seneviratne

Identification of Pathogenic Bacteria (*Escherichia coli*) in Drinking Water Sources and Detection of their Antibiotic Resistant Genes in Gampaha District, Sri Lanka.

R Wijesooriya, ODK Perera, and VA Bodhinayaka

Application of the Peak-to-Valley Method for *in-situ* Gamma Spectroscopy Using NaI(Tl) Detector

Yashika Rodrigo, CS Sumithrarachchi, and MR Lamabadusuriya

Estimation of Phenolic Content, Flavonoid Content, and Antioxidant Activities of Selected Fruits in Sri Lanka

PGNH Dharmasiri, KW Samarakoon, P Ranasinghe, and PT Jayasooriya



MANAGEMENT, SOCIAL SCIENCES AND HUMANITIES

7th September

Management:

Work from Home Culture of Private Service Sector in the Western Province of Sri Lanka: Effectiveness through Women's Experiences

GHNH Ariyadasa, MAI Fernando, and DR Perera

Social Sciences:

Motivational Factors that Lead to Nature-Based Adventure Activities, with Sustainability and Technological Approaches

WMVD Chathuranga

Examining Patient Contentment with the Quality of Nursing Care in the Public Healthcare Sector

NAK Weerasinghe, DSJ Wanaguru, UGHC Yapa Bandara, MGA Sandaruwan, KMMM Bandara, and SPTC Abesinghe

Data Science:

Internet of Things Security Assessment and Mitigation Strategies for Resilient Military Operations

HSC De Silva, and TSS Nilakshi