



The 14th International Conference on

Sustainable Built Environment -2023



The Kandy Conference

PROGRAM BOOK

The 14th International Conference on Sustainable Built Environment (ICSBE) 2023

Vision

To drive innovative research for tomorrow's development

Mission

To meet colleagues, experts and friends in the field and to exchange ideas and those
About research development work, concepts and practical ideas in structural,
Construction and management

15th – 17th December, 2023, Kandy, Sri Lanka

PREFACE

It is with great pleasure that we present the proceedings of the 14th International Conference on Sustainable Built Environment (ICSBE) 2023. This is the fourteenth consecutively organized conference following a series of international conferences since 2010, keeping its tradition of adhering to engineering excellence. Taking a step forward from the last thirteen events, the coverage of specialty areas in this conference has been diversified. This book contains the abstracts of research work from many different sub-specialties. We expect that all these abstracts will be presented at parallel sessions from 16th to 17th December 2023. We would like to express our appreciation to all keynote speakers for their valuable contributions to the development of a sustainable world. We are also very grateful to the authors for contributing research papers of high quality. The abstracts in this proceeding book have been reviewed by a panel of academic and professional experts who have vast expertise in their respective fields. The enormous work carried out by these reviewers is gratefully appreciated as well. We are also pleased to acknowledge the advice and assistance provided by the members of the local and international advisory committee and members of the co-chairs committee along with many others who volunteered to assist to make this very significant event a success. Furthermore, we acknowledge the financial sponsorship provided by many organizations that have been extremely supportive of the success of this international conference. It is the earnest wish of the editors that this proceeding book would be used by the research community and practicing engineers/scientists who are directly or indirectly involved in studies related to sustainable built environments.

Editors

Prof. Ranjith Dissanayake
Dr. Pradeep Gajanayake

A MESSAGE FROM THE VICE-CHANCELOR, UNIVERSITY OF PERADENIYA

I am delighted to share a message marking the 14th International Conference on Sustainable Built Environment (ICSBE) 2023.

I commend the Conference for maintaining consistently high academic standards throughout its history. Over the past 14 years, it has provided an exceptional platform for engineers, scientists, and researchers to showcase advancements in research and development, as well as the practical application of new tools and technologies.

In line with its established legacy, the Conference is expanding its focus by embracing new areas, particularly technical and industrial collaborations. The technical sessions of the Conference, centered around the theme "Building Sustainable Nations," directly align with the university's current developmental plans. The University has initiated an ambitious plan aiming for significant advancements in all aspects by its centenary year in 2042. Central to these developmental plans is our dedication to sustainability, aligning with the specific goals outlined by the United Nations. I am confident that participants from the university will utilize the insights from the conference to refine and adapt our developmental strategies accordingly.

I extend my heartfelt congratulations to the organizing committee of ICSBE – 2023 and convey my sincere wishes for a successful, impactful, and inspiring conference.

Thank you.

Prof. M. D. Lamawansa
Vice Chancellor
University of Peradeniya

MESSAGE FROM THE CONFERENCE CO-CHAIRS

It is a pleasure for us to welcome all the participants to the 14th International Conference on Sustainable Built Environment (ICSBE) 2023 in Kandy, Sri Lanka. We, the co-chairs would gratefully like to mention the previous successful conference, which was held for thirteen consecutive years in Kandy, Sri Lanka. The theme selected for the conference Sustainable Built Environment is extremely relevant to today's world. With the vision of promoting innovative and sustainable research for tomorrow's development. We organize this conference as a meeting place of talents, knowledge, and dedication. Therefore, we trust that the conference will produce great ideas from a variety of research and exchange the knowledge of experts, colleagues, and friends who are working for the world's sustainable development. The conference focuses on the different sub-topics in the sustainable built environment: such as sustainable construction, sustainable infrastructure development & planning, urban green infrastructure & planning, sustainable cities and villages, waste & wastewater management for enhanced sustainability, advanced water & wastewater technology, rainwater harvesting, water conservation, solar energy, bio-energy, wind, and hydro-power energy, alternative clean energy, green advanced computations & communication, green energy economics, policy, financing & business practice, sustainable materials, material flows & industrial ecology, high-performance concrete, remove, recycle, repair of materials, building automation, indoor environmental quality, indoor plants, impacts of climate change, climate change & reducing greenhouse emissions, carbon footprint, impacts of sustainable bio-fuel, social impact & human behavior, climate risk management & mitigation, global climate model and landscaping. The best-selected papers will be published in Springer Nature as lecture notes in civil engineering. Other full papers (which are presented at the conference) are published as conference proceedings with ISSN number. The host city of the conference, Kandy, is a world heritage city famous for its unique architecture, culture, nature, beauty, and climate. We hope that you will enjoy your time in Kandy during the conference. We, the conference co-chairs express our sincere thanks to our guests, keynote speakers, authors, members of the international advisory committee, members of the editorial committee, sponsors, and many others who volunteered to assist to make this very significant event a success.

Prof. Ranjith Dissanayke
Prof. Priyan Mendis
Prof. Chintha Jayasinghe
Prof. Sudhira De Silva
Prof. Upul Attanayake
Prof. Chaminda Konthesingha
Prof. D. A. R. Dolage
Dr. Ajith Thambo
Dr. Balasubramaniam Janarathnan
Eng. Shiromal Fernando

MESSAGE FROM THE CHIEF GUEST

Dear friends and colleagues,

It is an honor and a privilege for me to pen this brief message, as the Chief Guest, on the occasion of the 14th International Conference of The Sustainable Built Environment, although this year's theme is much more - on the multi-disciplinarity of sustainability.

First, I wish to congratulate the organizing committee ably led by Professor Ranjith Dissanayake for 'sustaining' this 'Kandy Conference' for over 14 years, which is no mean task by any measure. As an academic who has worked in all five continents as a clinician, teacher, and an executive Dean, I am well aware of the energy and the unremitting tenacity required for maintaining the vigor of such a conference series.

The theme of this year's conference is multi-disciplinarity of sustainable development, and is built on the 17 sustainable Millennium Development Goals (SDGs) set in 2000, that were formally adopted by all 193 member states of the UN in September 2015, aiming at ending extreme poverty, protecting the planet and ensuring prosperity for all by 2030 (UN, 2015). The SDGs expanded the agenda to include issues such as climate change, sustainable consumption, but also quality education requiring all countries to take action including those with high levels of development.

The goal of education for sustainable development (UN, 2015, p. 21) entails that 'that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, education for sustainable development and sustainable lifestyles, human rights, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and its contribution to sustainable development.

I am proud to say as a Sri Lankan we have embraced this ethos of quality education for a very long period and what's more with virtually free provision of quality education to all, despite being a developing nation, still facing many hurdles. This is exemplified by our 17 universities and the global diaspora of graduates in varying professions. Incidentally I hope many of you who are here today will have the opportunity to visit one of the most beautiful campuses in the world, a few miles away – our University.

of Peradeniya Campus, built in 1942, along the lines of Cambridge University, UK, and adorned by the undulating Mahaweli river.

Although Sri Lanka and many other jurisdictions have some way to go before achieving the foregoing erudite goals 'of education for sustainable development' conferences such as these help nurture the ethos and popularise these goals, particularly when held under the auspices of a tertiary education institute.

In closing this short message, I wish you all a wonderful and a productive conference with many networking opportunities, whilst at the same time enjoying the breath-taking vistas and cuisine Sri Lanka has to offer.

Prof. Lakshman Samaranayake

Professor Emeritus and Immediate-Past Dean, Faculty of Dentistry
University of Hong Kong, Hong Kong

16th December 2023

Room 1 (Hybrid)/ Session 01

Tall Building Session

Join Zoom Meeting	https://us06web.zoom.us/j/88101147875?pwd=S2qhrM0Aa40PR7tH3UoxOZUic1xK.1		
	Meeting ID: 881 0114 7875 Passcode: 672369		
Session Chair 1	Prof. Priyan Mendis	Session Coordinator 1	Mr. Chamath Pigera
Session Chair 2	Eng. Shiromal Fernando	Session Coordinator 2	Mr. Hashan Thilakarathna
09.00 – 09.10 hrs	Welcome Address	Eng. Shiromal Fernando - CTBUH Sri Lanka	
09:10 - 09:30 hrs	Key Lecture 01	Dr. Damith Mohotti	Predicting transient along wind pressure over a tall building using machine learning
09.30 – 09.45 hrs	Key Lecture 02	Arct. Nirodha Gunadasa	Modern Design Technology of Tall Buildings
Time	Paper ID	Title	
09.45 – 10.00 hrs	ICSBE_401	ARTIFICIAL INTELLIGENCE APPLICATION IN ARCHITECTURE AND ENGINEERING <i>R.M.H Liyanage, Shiromal Fernando, Priyan Mendis</i>	
10.00 – 10.15 hrs	ICSBE_295	COMPARATIVE STUDY OF WIND LOADING COMBINATIONS FOR TALL BUILDINGS INCLUDING TORSION: A CFD APPROACH <i>B. Kiriparan, J. A. S. C. Jayasinghe, U. I. Dissanayake, W. J. B. S. Fernando</i>	
10.15 – 10.30 hrs	ICSBE_176	EVALUATION OF EARTHQUAKE DESIGN RESPONSE SPECTRA FOR SRI LANKA CONSIDERING SHORT PERIOD EFFECTS <i>H.A.D.S. Buddika, N.S. Peiris, B.R.D. Peiris</i>	
10.30 – 10.45 hrs	ICSBE_271	IDENTIFICATION OF NATURAL FREQUENCY AND DAMPING RATIO OF TALL BUILDINGS IN SRI LANKA USING AMBIENT WIND VIBRATION DATA <i>H.A.D. Samith Buddika, U.G.K. Prabodya, T.A. Madusanga</i>	
10.45 – 11.00 hrs	ICSBE_282	NUMERICAL STUDY ON EXTERNAL PRESSURE VARIATION OF TALL-BUILDINGS DUE TO INTERFERING EFFECTS <i>E. M. R. Ekanayake, H. M. A. I. Herath, J. A. S. C. Jayasinghe and A. J. Dammika</i>	

16th December 2023

Room 1 (Hybrid)/ Session 02

IESL Special Session

Join Zoom Meeting

<https://us06web.zoom.us/j/88101147875?pwd=S2qhrrM0Aa40PR7tH3UoxOZUic1xK.1>

Meeting ID: 881 0114 7875 Passcode: 672369

Time	Description	Facilitator
11.30 - 11.40 hrs	Key Lecture	Prof. Ranjith Dissanayake - President IESL
11.40 – 11.50 hrs	Lecture 01	Eng. (Dr.) Kamal Laksiri - Immediate past president
11.50 – 12.00 hrs	Lecture 02	Prof. Priyan Mendis- University of Melbourne
12.00 – 12.10 hrs	Lecture 03	Eng. Sarath Gamini
12.10 - 12.20 hrs	Lecture 04	Prof. Janaka Ekanayaka
12.20 - 12.45 hrs	Panel Discussion	Prof. Janaka Ruwanpura (Moderator)
		Prof. Ranjith Dissanayake, Prof. Priyan Mendis, Eng. Sarath Gamini, Prof. Janaka Ekanayaka
12.45 – 12.50 hrs	Closing remarks	

16th December 2023

Room 1 (Hybrid)/ Session 03

Concrete Technology and High-Performance Concrete

Join Zoom Meeting	https://us06web.zoom.us/j/88101147875?pwd=S2qhrrM0Aa40PR7tH3UoxOZUic1xK.1		
	Meeting ID: 881 0114 7875 Passcode:672369		
Session Chair 1	Prof. Hiran Yapa	Session Coordinator 1	Mr. Chamath Pigera
Session Chair 2	Dr, Dhammika Abeykoon	Session Coordinator 2	Mr. Hashan Thilakarathna
14.15 - 14.20 hrs	Introduction to Keynote Lecturer	Prof. Hiran Yapa	
14.20 - 14.45 hrs	Keynote	Assoc. Prof. Sudharshan N. Raman	FEASIBILITY OF COAL BOTTOM ASH AS A SUPPLEMENTARY BINDING MATERIAL IN CEMENT-BASED COMPOSITES
Time	Paper ID	Title	
14.45 - 15.00 hrs	ICSBE_72	FUNCTIONAL EVALUATION OF IDENTIFIED RURAL CONCRETE ROADS IN SRI LANKA - A CASE STUDY <i>K. P. Arandara, S. T. Priyadarshana, G. N. Pranavithana, R. B. Mallick, R. Dissanayake</i>	
15.00 - 15.15 hrs	ICSBE_145	EFFECTS OF POROSITY AND DISTRESSES IN CONCRETE ON ULTRASONIC PULSE VELOCITY READINGS <i>M.Mayooran, J.C.P.H.Gamage, E.R.K.Chandrathilaka</i>	
15.15 - 15.30hrs	ICSBE_234	DEVELOPMENT OF LIGHTWEIGHT AGGREGATE CONCRETE WITH RECYCLED HDPE PLASTIC PALLETS <i>T.D.B. Nawarathna, K.M.C. Konthesingha, S.M.A. Nanayakkara, H.M.S.C. Rathnasiri, I.R. Upasiri, W.P.H.P. Weerasinghe, P.M.W.P. Kumara, A. Branavan</i>	
15.30 - 15.45 hrs	ICSBE_10	IMPROVING MIXED CONSTRUCTION AND DEMOLITION WASTE USED AS FINE AGGREGATES IN CONCRETE PRODUCTION BY PHYSICAL PRE-TREATMENT <i>R. N. Udarika, C.K. Pathirana</i>	

16th December 2023

Room 1 (Hybrid)/ Session 04

Sustainable Construction and Green Building Techniques

Join Zoom Meeting	https://us06web.zoom.us/j/88101147875?pwd=S2qhrM0Aa40PR7tH3UoxOZUic1xK.1		
	Meeting ID: 881 0114 7875 Passcode: 672369		
Session Chair 1	Dr. Ajith Thambo	Session Coordinator 1	Mr. Chamath Pigera
Session Chair 2	Arct. Nirodha Gunadasa	Session Coordinator 2	Mr. Hashan Thilakarathna
16.35 - 16.40 hrs	Introduction to Keynote Lecturer	Dr. Ajith Thambo	
16.40- 17.05 hrs	Keynote by	Prof. Lu Aye	NET-ZERO CARBON AND HEALTHY BUILDINGS
Time	Paper ID	Title	
17.05 - 17.20 hrs	ICSBE_3	SIMULATION OF TIME DEPENDENT BEHAVIOUR OF RESTRAINED RC ELEMENTS <i>S.P.D. Danushka, J.M.C.I. Jayasinghe, H.D. Yapa</i>	
17.20 - 17.35 hrs	ICSBE_27	ANALYSIS OF MIDDLE INCOME HOUSING MARKET IN COLOMBO MUNICIPAL COUNCIL AREA: SOCIO-PSYCHOLOGICAL FACTORS FROM STATE SECTOR PROFESSIONALS' POINT OF VIEWS <i>R.P. Maladugala, R.G. Ariyawansa</i>	
17.35 - 17.50 hrs	ICSBE_37	IMPACTS OF SUSTAINABLE HIGHWAY CONSTRUCTION ON THE ECONOMY OF SRI LANKA: A SYSTEMATIC LITERATURE REVIEW <i>I.H.G.Y.M. Udari Yaparathne, Kavini Guruge</i>	
17.50 - 18.05 hrs	ICSBE_356	HOW GREEN IS WORLD'S GREENEST CITY? <i>Şerban Procheş</i>	
18.05 - 18.20 hrs	ICSBE_174	EXPERIMENTAL INVESTIGATION ON POROUS CONCRETE FOR SUSTAINABLE DRAINAGE SYSTEMS <i>D.R.T. Niwunhella, D.N.S. Kalpadeep, N.G.P.B. Neluwala, A.J. Dammika</i>	
18.20 - 18.35 hrs	ICSBE_77	EMISSION REDUCTION POTENTIAL AND LAND-USE IMPLICATIONS OF DECARBONISING THE POWER SECTOR IN SRI LANKA <i>Lahiru Jayasuriya, Gayan Subasinghe, Mevan Pathirathne, Thusitha Sugathapala</i>	

16th December 2023

Room 2 (Hybrid)/ Session 01

RMIT Sri Lanka Joint Research Session

Join Zoom Meeting

<https://zoom.us/j/97144657867?pwd=dm5vZzl4c3BLRVB2bXc2QmV1MHhEZz09>

Meeting ID: 971 4465 7867 Passcode: 816212

Time	Description	Facilitator(s)
09.00 – 09.20 hrs	Welcome to the plenary session from Conference Chair	Prof. Ranjith Dissanayake
09.20 – 09.35 hrs	Introduction to the joint Ph.D program	Prof. Sujeewa Setunge, Associate Deputy Vice-Chancellor (Research & Innovation), STEM college, RMIT University
09.35 – 09.50 hrs	Future directions and RTP internships	Prof. Denise Cuthbert ADVC Research Training and Development, RMIT University
09.50 – 10.05 hrs	Panel Discussion Academic-Industry forum: Progress, Industry engagement and future opportunities	Panel Chairs UoP: Prof. Nadeeshani Nanayakkara UoM: Senior Prof. Chinthia Jayasinghe UoR: Dr. Ruwan Appuhamy UoSJP: Prof. Chaminda Konthesingha
10.05 – 10.20 hrs		UoP: Dr. S. K. Weragoda Director/Joint Research and Demonstration Center for Water Technology (JRDC),
10.20 – 10.35 hrs		UoM: Eng. Dhammika Silva General Manager, Head of Engineering Designs & Design Department, Access Engineering PLC Design Department Head of Engineering Designs Design Department
10.35 – 10.50 hrs		UoR: Mr. Lakmal Dharmasena QA/QC Manager, SMS Holdings (Pvt) Ltd;
10.50 - 11.00 hrs	Panel Discussion and Questions from the audience, Closure of plenary session Prof Kevin Zhang, Associate Dean in Civil & Infrastructure Engineering at RMIT University	

16th December 2023

Room 2 (Hybrid)/ Session 02

SECRA/ FOUNTAIN Session

Join Zoom Meeting

<https://zoom.us/j/97144657867?pwd=dm5vZzl4c3BLRVB2bXc2QmVlMHhEZz09>

Meeting ID: 971 4465 7867 Passcode: 816212

Session Chair 1

Prof. Guttilla Jayasinghe

Session Coordinator 1

Mr. Ravindra Ekanayake

Session Chair 2

Prof. Champa Nawarathne

Session Coordinator 2

Mr. Ravindu Udara

Time

Description

Facilitator

14.15 - 14.20 hrs

Welcome address

Prof. Roshan D. Yapa

14.20 - 14.35 hrs

Key Lecture 01

Mr. Migara Amithodhana

Time

Paper ID

Title

14.35 - 14.50 hrs

ICSBE_297

SPATIAL AND TEMPORAL VARIABILITY OF RAINFALL TRENDS TO INDICATE THE CLIMATE CHANGE AND EXTREME WEATHER EVENTS FOR PAST THREE DECADES – A STUDY IN GALLE DISTRICT FROM 1992 TO 2022
P L C Perera, M Ranagalage , G Y Jayasinghe

14.50 - 15.05 hrs

ICSBE_283

INVESTIGATING HOW GREEN INFRASTRUCTURE AFFECTS PARTICULATE MATTER CONCENTRATIONS IN URBAN STREET ENVIRONMENTS
H.A.T.N. Perera, K.G.N.H. Weerasinghe, R.U. Halwatura, G.Y. Jayasinghe

Time

Description

Facilitator

15.05 - 15.20 hrs

Key Lecture 02

Prof. Ranjith Dissanayake

15.20 - 15.35 hrs

Key Lecture 03

Eng. Shiromal Fernando

Time

Paper ID

Title

15.35 - 15.50 hrs

ICSBE_293

EMERGING PFAS CONTAMINATION: UNDERSTANDING THE ECOLOGICAL AND HUMAN HEALTH IMPACTS ON WATER QUALITY

15.50 - 16.05 hrs	ICSBE_300	AN ASSESSMENT OF ENTREPRENEURIAL RESILIENCE AMONG WOMEN ENTREPRENEURS IN SRI LANKA <i>D.P.Lokuwithana, K.Hemachandra, P.B.R.Dissanayake</i>
Time	Description	Facilitator
16.35 hrs - 16.50 hrs	Key Lecture 04	Prof. Roshan D. Yapa
Time	Paper ID	Title
16.50 - 17.05 hrs	ICSBE_302	FINANCIAL INSTITUTIONS' READINESS TO SUPPORT SMES AMIDST THE ECONOMIC CRISIS - PERCEPTIONS OF GROUND-LEVEL OFFICERS: A CASE STUDY FROM SRI LANKA <i>S.M.S.N. Senanayake, P.A.N.P. Pandipperuma, J.M.H.M. Upulwehera, P.B.R. Dissanayake, R.P.I.R. Prasanna</i>
17.05 - 17.20 hrs	ICSBE_308	INNOVATION ECOSYSTEMS: SUSTAINING UNIVERSITY-INDUSTRY HARMONY IN THE ASIAN EDUCATIONAL LANDSCAPE <i>S.M.S.N. Senanayake, T.S. Ukwatte, G. Y. Jayasinghe, P.A.N.P. Pandipperuma, J.M.H.M. Upulwehera, M.C. Karunadasa, K.M.C. Tharupath, P.B.R. Dissanayake, Lahiru N. Dissanayake, C. S. Bandara</i>
Time	Description	Facilitator
17.20 - 17.35 hrs	Key Lecture 05	Mr. Chamath Kandambi
Time	Paper ID	Title
17.35 - 17.50 hrs	ICSBE_291	REVISITING LAND USE PLANNING POLICIES FOR RIVERBANK SETTLEMENTS: LESSONS FROM MELAMCHI FLOOD IN NEPAL <i>Sanjaya Uprety, Barsha Shrestha</i>
17.50 - 18.05 hrs	ICSBE_303	THE IMPACT OF CLIMATE CHANGE ON FOOD SECURITY: A REVIEW OF RECENT RESEARCH <i>W.G.M Randika, S.M.T.P Suriyapperuma, G.Y. Jayasinghe</i>
Time	Description	Facilitator
18.05 - 18.30 hrs	Panel Discussion	Moderator · Prof. Roshan D. Yapa, University of Peradeniya Panelists
		Mr. Migara Amithodhana, Co-Founder and CEO MagicBit, Mr. Chamath Kandambi, Founder and CEO 360 Labs, Eng. Shiromal Fernando, Civil & Structural Engineering Consultants (Pvt) Limited
18.30- 18.35 hrs	Closing note	Prof. Chaminda Bandara

16th December 2023

Room 3 (Hybrid)/ Session 01

Structural Engineering Session

Join Zoom Meeting

<https://zoom.us/j/97717785708?pwd=QU5FMnpUNk44eIBhWUhsVGVVoZWJ3Zz09>

Meeting ID: 977 1778 5708 Passcode: 182599

Session Chair 1

Prof. Upul Attanayake

Session Coordinator 1

Mr. Dilan Danushka

Session Chair 2

Prof. Thishan Jayasinghe

Session Coordinator 2

Mr. J A I D Viduranga

Time

Paper ID

Title

09.00 – 09.15 hrs

IABMAS_181

STEEL TRUSS BRIDGE WITH BUCKLING RESTRAINED DAMPERS UNDER SEISMIC LOADING
E. Yamaguchi, N. Enkhbold, P. Sosorburam

09.15 – 09.30 hrs

ICSBE_351

A FUZZY ANALYSIS APPROACH FOR EVALUATING THE INFLUENCE OF SUBJECTIVE APPRAISAL ON CONSTRUCTION PRODUCTIVITY DRIVERS
Amila Premakumara, Isuri Amarasinghe, Chandana Siriwardana

09.30 – 09.45 hrs

ICSBE_352

FINITE ELEMENT MODELLING OF FATIGUE CRACK GROWTH OF CSH SUBJECTED TO CYCLIC FLEXURAL LOADING
S.Abeygunasekara, J.C.P.H.Gamage, S.Fawzia

09.45 – 10.00 hrs

ICSBE_353

COMPRESSIVE STRENGTH PREDICTION OF ULTRA-HIGH PERFORMANCE FIBRE REINFORCED CONCRETE (UHPFRC) USING ARTIFICIAL NEURAL NETWORKS
R.S.S.A. Wijesundara, K.K. Wijesundara, N.M.S.H. Bandara

10.00 – 10.15 hrs

ICSBE_186

REUSABILITY OF CONCRETE STRUCTURAL ELEMENTS AFTER THE SERVICE LIFE – SRI LANKAN PERSPECTIVE
S.A.R.B.S. Siriwardhana, G. Tharmarajah

10.15 – 10.30 hrs

ICSBE_275

SUITABILITY ASSESSMENT OF COMPOSITE CROSSARMS
S Bandara, P Rajeev, E Gad

16th December 2023

Room 3 (Hybrid)/ Session 02

Sustainable Agriculture Session

Join Zoom Meeting	https://zoom.us/j/97717785708?pwd=QU5FMnpUNk44eIBhWUhsVGVoZWJ3Zz09		
	Meeting ID: 977 1778 5708 Passcode: 182599		
Session Chair 1	Prof. Guttila Jayasinghe	Session Coordinator 1	Mr. Dilan Danushka
Session Chair 2	Prof. Champa Nawarathne	Session Coordinator 2	Mr. J A I D Viduranga
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_84	EVALUATION OF ANTIMICROBIAL AND ANTIOXIDANT EFFECTS OF CHITOSAN-BASED EDIBLE, BIODEGRADABLE FILMS CONTAINING CINNAMON (<i>Cinnamomum zeylanicum</i>) ESSENTIAL OIL FOR FOOD PACKAGING <i>K.G. Kaushani, N.P. Katuwavila, R.A. Jayasinghe, A.H.L.R. Nilmini, G. Priyadarshana</i>	
11.45 - 12.00 hrs	ICSBE_52	DESIGN AND DEVELOPMENT OF A HEAVY-DUTY DRONE FOR PEST CONTROL AND NON-HEALTHY TREE IDENTIFICATION IN NUTMEG CULTIVATION IN THE CENTRAL PROVINCE OF SRI LANKA <i>J.K.R.L. Weerawardhana, W.M.H.M. Aththnayaka, M.L. Rankothge</i>	
12.00- 12.15 hrs	ICSBE_254	SUSTAINABLE TEA PLANTATION: A STUDY CONDUCTED ON THE SUSTAINABLE STRATEGIES UNDERTAKEN TO OVERCOME THE IMPACT OF ECONOMIC RECESSION IN WELIMADA TEA ESTATES <i>N. M. S. U. Nissanka</i>	
12.15- 12.30 hrs	ICSBE_219	GREEN FINANCING AS A MEASURE TO BUILD RESILIENCE AMONG FISHERIES COMMUNITIES IN SRI LANKA <i>M.M.S.C. Senevirathne, D.A.M. De Silva, M.Esham, C.N. Pupilawaththa</i>	
12.30 - 12.45 hrs	ICSBE_220	BUSINESS CONTINUATION MECHANISM FOR TEA SMALLHOLDERS: BUILDING RESILIENCE ON CLIMATE-INDUCED DISASTERS <i>M.G.D.N.M. Wijerathne, D.A.M. De Silva</i>	
12.45 - 13.00 hrs	ICSBE_217	SMALL-SCALE FISH PROCESSING ESTABLISHMENTS AND THEIR VULNERABILITY TO CLIMATE HAZARDS <i>W.B.G.S. Welihinda, D.A.M. De Silva</i>	
13.00-13.15 hrs	ICSBE_358	DEVELOPMENT OF LIGHTWEIGHT EXPANDED CLAY AGGREGATES FORMED USING SLUDGE DISCHARGED FROM THE DRINKING WATER TREATMENT PROCESS <i>Sajani H. Kolambage, Dimalka R.M.N, Chathura Sanjeewa W., Pradeep Gajanayake</i>	
13.15-13.30 hrs	ICSBE_65	CHARACTERISTICS OF ESSENTIAL OIL EXTRACTED FROM SPOUTED BED DRIED BLACK PEPPER <i>G.K. Jayatunga, B.M.W.P.K. Amarasinghe</i>	

16th December 2023

Room 3 (Hybrid)/ Session 03

Fire Safety Engineering Session

Join Zoom Meeting

<https://zoom.us/j/97717785708?pwd=QU5FMnpUNk44eBhWUhsVGVoZWJ3Zz09>

Meeting ID: 977 1778 5708 Passcode : 182599

Session Chair 1

Prof. Priyan Mendis

Session Coordinator 1

Mr. Dilan Danushka

Session Chair 2

Dr. Pasindu Weerasinghe

Session Coordinator 2

Mr. J A I D Viduranga

Time

Paper ID

Facilitator

Title

14.15 - 14.30 hrs

Key lecture 01

Dr. Pasindu Weerasinghe

Introduction to SFPE Sri Lanka

14.30 - 14.50 hrs

Key lecture 02

Prof. Priyan Mendis

MACHINE LEARNING BASED
FRAMEWORK FOR PREDICTING
THE FIRE-INDUCED SPALLING IN
CONCRETE TUNNEL LININGS

14.50 - 15.05 hrs

ICSBE_287

HIDDEN DANGERS OF FIRE SAFETY IN MODULAR
CONSTRUCTIONS
*R.L.P. Godakandage, K. T. Q. Nguyen, T.G.P.L Weerasinghe1,
J.C.P.H. Gamage*

15.05 - 15.20 hrs

ICSBE_36

REVIEW OF FIRE RESCUE RESOURCES AND PUBLIC
AWARENESS ON THE FIRE SAFETY OF HIGH-RISE
BUILDINGS IN SRI LANKA
*THTN Premanath, KMC Konthesingha, IR Upasiri, HMSC Rathnasiri,
WPHP Weerasinghe, THTN Premanath, KMC Konthesingha, IR
Upasiri, HMSC Rathnasiri, WPHP Weerasinghe*

15.20 - 15.35 hrs

ICSBE_284

INVESTIGATE THE THERMAL RESPONSE OF DIFFERENT
INSTALLATION FORMS OF GLASS PANELS UNDER FIRE
LOADING: A NUMERICAL APPROACH
*R. G. S. S. Perera, J. H. A Ruwanmali, T. Thevega, J. A.
S. C. Jayasinghe*

15.35- 15.50 hrs

ICSBE_400

ACTIVE AND PASSIVE FIRE SAFETY SIMULATION FOR
OFFICE BUILDINGS
R.A.D.M.Kahatapitiya, W. J. B. S. Fernando, Priyan Mendis

15.50- 16.05 hrs

ICSBE_296

FIRE PERFORMANCE OF POLYMER IN COMPOSITE
MATERIALS FOR BUILDING CLADDINGS: A NUMERICAL
APPROACH
*T. Thevega, J. A. S. C. Jayasinghe, D. Robert, C. S. Bandara, E.
Kandare, S. Setunge*

16th December 2023

Room 3 (Hybrid)/ Session 04

An Investigation of the Applicability of the Biomimicry Concept for DRR and Social Enterprises

Join Zoom Meeting	https://zoom.us/j/97717785708?pwd=QU5FMnpUNk44elBhWUhsVGVoZWJ3Zz09		
	Meeting ID: 977 1778 5708 Passcode : 182599		
Session Chair 1	Dr. Nuwan Dias	Session Coordinator 1	Mr. Dilan Danushka
Session Chair 2	Dr. Chethika Abeynayake	Session Coordinator 2	Mr. J A I D Viduranga
Time	Description	Facilitator	
16.35 - 16.40 hrs	Welcome address	Prof. Ranjith Dissanayake	
16.40 - 16.55 hrs	Keynote	Prof. Janaka Ruwanpura	
16.55 - 17.10 hrs	Key Lecture 01	Dr. Kinkini Hemechandra	
17.10 - 17.25 hrs	Key Lecture 02	Dr. Nuwan Dias	
Time	Paper ID	Title	
17.25 - 17.40 hrs	ICSBE_403	AN INVESTIGATION OF THE APPLICABILITY OF BIOMIMICRY CONCEPTS IN SOCIAL ENTERPRISES' (ES) RESILIENCE <i>G.R.S.D. Gamage, K. Hemachandra, P.B.R. Dissanayake, D. Amaratunga, R. Haigh</i>	
17.40 - 17.55 hrs	ICSBE_404	REVIEW OF NATURE INSPIRED SOLUTIONS FOR DISASTER RISK REDUCTION <i>Panchali Dias . Nuwan Dias . Ranjith Dissanayake</i>	
17.55 - 18.10 hrs	ICSBE_170	A NATURE-INSPIRED SOLUTION FOR ENHANCED IMPACT RESISTANCE OF STRUCTURES <i>H.M.T. Sajana, P.L.N. Fernando</i>	
18.10 - 18.50 hrs	Panel Discussion 01	Moderate: Dr. Nuwan Dias/ Dr. Chethika Abeynayake Panellists: Prof. Sarath Kotagama Prof. Janaka Ruwanpura Dr, Nimal Wijenayake	
18.50 – 18.55 hrs	Closing Note	Dr. Nuwan Dias	

16th December 2023

Room 6 (Hybrid)/ Session 01

Construction Management Session

Join Zoom Meeting

<https://zoom.us/j/97241148173?pwd=WGpPY2dXRlZ4RURJWFVhRW5rUWIBQT09>

Meeting ID: 972 4114 8173 Passcode: 123782

Session Chair 1

Prof. Ajith Dolage

Session Coordinator 1

Ms. Sajani Kolombage

Session Chair 2

Dr. Kamal
Karunananda

Session Coordinator 2

Ms. Vishmi

Time

Paper ID

Title

09.00 – 09.15 hrs

ICSBE_151

STRATEGIES TO OVERCOME COMMUNICATION DEFICIENCIES IN
MANAGEMENT CONTRACTS IN SRI LANKAN CONSTRUCTION
INDUSTRY
M. Dinujanth, I.S. Gamage, B.C.T.M. Karunaratne

09.15 – 09.30 hrs

ICSBE_157

EFFECT OF CURRENT ECONOMIC CRISIS ON CONSTRUCTION
CONTRACTORS IN SRI LANKA: AN EXPLORATORY STUDY ON
SMALL-SCALE CONTRACTORS
M. T. D. Perera, K. A. N. Gunarathna, B.C.T.M. Karunaratne

09.30 – 09.45 hrs

ICSBE_244

CONSTRUCTION CONTRACTUAL ISSUES AND PROSPECTS
APPLYING OF ALTERNATIVE DISPUTE RESOLUTIONS IN SRI
LANKA
HN Hikkaduwa

09.45 – 10.00 hrs

ICSBE_17

STRATEGIC ASSET MANAGEMENT FRAMEWORK FOR CENTRAL
ENGINEERING CONSULTANCY BUREAU (CECB)
B. H. J. Bulathsinhala, K. K. K. Sylva

16th December 2023

Room 6 (Hybrid)/ Session 02

Construction Management Session

Join Zoom Meeting	https://zoom.us/j/97241148173?pwd=WGpPY2dXRlZ4RURJWFVhRW5rUWIBQT09		
	Meeting ID: 972 4114 8173 Passcode: 123782		
Session Chair 1	Dr. Sahan Bandara	Session Coordinator 1	Ms. Sajani Kolombage
Session Chair 2	Dr. Chathurani Chandrasiri	Session Coordinator 2	Ms. Vishmi
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_347	UNLEASHING POTENTIAL WITH GLASS WASTE IN MASONRY <i>O.M. Hasaranga, C. Jayasinghe, K.P.I.E. Ariyaratne</i>	
11.45 - 12.00 hrs	ICSBE_342	THE INTEGRATION OF CIRCULAR ECONOMY PRINCIPLES WITH BIM-ENABLED MATERIAL PASSPORTS FOR SUSTAINABLE CONSTRUCTION <i>J.M.P.M. Jayawardane, I.H.N. Chathuranga, C.S.A. Siriwardana, Wajiha Shahzad</i>	
12.00- 12.15 hrs	ICSBE_277	DEVELOPMENT OF A CRACK SEVERITY-BASED DAMAGE ASSESSMENT MATRIX FOR MASONRY BUILDINGS <i>Wickramathilake G G T D, Jayasinghe C, Ariyaratne I E</i>	
12.15- 12.30 hrs	ICSBE_227	WHAT DEMOTIVATES HOMEOWNERS TO RETROFIT THEIR HOUSES: A SYSTEMATIC REVIEW <i>C, Panakaduwa, S,P, Coates, M, Munir</i>	
12.30 - 12.45 hrs	ICSBE_348	BEST PRACTICES OF OFF-SITE MANUFACTURING: LESSONS FROM AUSTRALIAN PREFAB MANUFACTURERS <i>J. Jayawardana, J. A. S. C. Jayasinghe, A. K. Kulatunga, M. Sandanayake, G. Zhang</i>	
12.45 - 1.00 hrs	ICSBE_276	ASSESSING THE READINESS FOR DIGITAL TECHNOLOGIES ADOPTION FOR ENHANCING PRODUCTIVITY IN THE SRI LANKAN CONSTRUCTION INDUSTRY <i>I.H.N. Chathuranga, C.S.A. Siriwardana, I.E. Ariyaratne</i>	

16th December 2023

Room 6 (Hybrid)/ Session 03

Construction Management Session

Join Zoom Meeting	https://zoom.us/j/97241148173?pwd=WGpPY2dXRlZ4RURJWFVhRW5rUWIBQT09		
	Meeting ID: 972 4114 8173 Passcode :123782		
Session Chair 1	Dr. Chathurangi Jayakodi	Session Coordinator 1	Ms. Sajani Kolombage
Session Chair 2	Dr. Lasitha Rathnayake	Session Coordinator 2	Ms. Vishmi
Time	Paper ID	Title	
14.15 - 14.30 hrs	ICSBE_74	IMPACTS OF URBAN SPRAWL ON WETLAND LAND COVER DYNAMICS: A SPATIAL AND TEMPORAL ANALYSIS FOR THE CASE OF COLOMBO <i>B. Rathnayake, C. Jayasinghe, P. Perera</i>	
14.30 - 14.45 hrs	ICSBE_133	FLEXIBILITY TO INCORPORATE CIRCULAR ECONOMIC PRACTICES WITHIN BUILT ENVIRONMENT PROCUREMENT CONTRACTS IN SRI LANKA <i>R. R. M. M. K. Wadugodapitiya, K. K. K. Sylva, S. M. Dissanayake</i>	
14.45 - 15.00 hrs	ICSBE_168	NEW WORK STRATEGIES TO OVERCOME THE IMPACT OF UNFORSEEN DISRUPTIVE EVENTS FOR CONSTRUCTION CONSULTANTS <i>S Hettiarachchi, C Allis, Y.K Delpachitra</i>	
15.00 - 15.15 hrs	ICSBE_225	A STUDY ON THE MISSED OPPORTUNITIES THROUGH THE SRI LANKAN CONSTRUCTION INDUSTRY TOWARDS A SUSTAINABLE ECONOMIC GROWTH <i>WDBJ Jeewananda, SD Jayasooriya</i>	
15.15 - 15.30 hrs	ICSBE_113	ECONOMIC AND ENVIRONMENTAL FEASIBILITY OF PRECAST CONCRETE WALLING SYSTEMS IN MULTI-STORY BUILDING CONSTRUCTION – A LIFE CYCLE PERSPECTIVE <i>Christeen S.K.P, Jayasooriya V.M</i>	
15.30- 15.45 hrs	ICSBE_158	A BIM-BASED ROAD MAP TO IMPLEMENT LEAN CONSTRUCTION PRINCIPLES TO MINIMIZE WASTE IN CONSTRUCTION PROJECT <i>M.G.D.M.Y. Wickramasinghe, H. Bandara, U.S. Perera, R.M.K. Sandama</i>	
15.45- 16.00 hrs	ICSBE_109	AWARENESS AND PERCEPTION OF QUANTITY SURVEYORS TOWARD THE SMART CONSTRUCTION CONCEPTS <i>R. S. V. Rajapaksha, K. Devapriya, M. L. S. S. Fernando</i>	

16th December 2023

Room 5 (Physical)/ Session 01

Sustainable Transport Session

Session Chair 1	Dr. Thissa Liyanage	Session Coordinator 1	Mr. Kumudu Prabodya
Session Chair 2	Dr. Ganga Samarasekara	Session Coordinator 2	Mr. H A S Malshan
Time	Description	Facilitator	Title
09.00 – 09.20 hrs	Key Lecture 01	Dr. Thissa Liyanage	EFFECTIVE USE OF EXISTING TRANSPORT ASSETS AND MANAGING IMPROVED TRANSPORT SYSTEMS TO REGAIN THE ECONOMIC SUSTAINABILITY FOR SRI LANKA
09.20 – 09.40 hrs	Key Lecture 02	Dr. Ganga Samarasekara	REGIONAL TRENDS OF CYCLING IN SRI LANKA
Time	Paper ID	Title	
09.40 – 09.55 hrs	ICSBE_324	USE OF GEOSYNTHETICS FOR SUSTAINABLE, ECONOMICAL, AND DURABLE ROAD PAVEMENT STRUCTURES <i>C. Gallage, K. Wimalasena , A. Pathirana</i>	
09.55 – 10.10 hrs	ICSBE_285	A PRICING POLICY FOR VEHICLES AND FUEL FOR SRI LANKA <i>L.S.M. Silva, A.S. Kumarage, M. Mavin De Silva</i>	
10.10 – 10.25 hrs	ICSBE_288	COMPARATIVE ANALYSIS OF THE EFFECT OF CIRCULAR AND HORSESHOE UNDERGROUND TUNNEL SHAPES ON THE REQUIRED SUPPORT PRESSURE IN THE GENERAL GEOLOGICAL CONTEXT OF KANDY CITY <i>M.A.K.V Warnakulasooriya, B. Fernando</i>	
10.25 – 10.40 hrs	ICSBE_289	SRI LANKAN VEHICULAR EMISSION ANALYSIS USING BIG DATA <i>Avishka Lakshan, Amal S. Kumarage, M. Mavin De Silva</i>	
10.40 – 10.55 hrs	ICSBE_270	DEVELOPMENT OF THE TRANSPORTATION SUSTAINABILITY TRADING SYSTEM FOR ROAD CONSTRUCTION PROJECTS IN SRI LANKA <i>C.N.J Samaranayake1*, G.N Samarasekara, K.M.C Konthesingha, W.M.N.R Weerakoon, R.S.M Samarasekara1, R. Dissanayake</i>	

16th December 2023

Room 5 (Physical)/ Session 02

Artificial Intelligence for Sustainable Development: Challenges and Opportunities

Session Chair 1	Prof. Janaka Ekanayake	Session Coordinator 1	Mr. Kumudu Prabodya
Session Chair 2	Prof. Roshan Godaliyadda	Session Coordinator 2	Mr. H A S Malshan
Time	Description	Facilitator	Title
14.15- 14.30 hrs	Key Lecture 01	Prof. Roshan Godaliyadda	
14.30 - 14.45 hrs	Key Lecture 02	Prof. Vijitha Herath	
Time	Paper ID	Title	
14.45 - 15.00 hrs	ICSBE_286	TRANSFORMING HOUSING RETROFIT: THE POTENTIAL IMPACT OF ARTIFICIAL INTELLIGENCE <i>C, Panakaduwa, S,P, Coates, M, Munir</i>	
15.00 - 15.15 hrs	ICSBE_260	ENHANCING THE FLOOD MODELING ACCURACY UNDER VERYING SPATIAL SCALE FINER RESOLUTION WEATHER DATA <i>Susantha Wanniarachchi, Ranjan Sarukkalige</i>	
15.15 - 15.30 hrs	ICSBE_205	DEVELOPING A MATHEMATICAL MODEL AND MOBILE APP FOR GREENHOUSE MONITORING AND CONTROL USING SENSOR INTEGRATION <i>M.T.U.D.Mallikarathne, A.M.H.M.Abeyasinghe, A.P. Wijayawantha</i>	
15.30- 16.00 hrs	Panel discussion	Prof. Janaka Ekanayake (Moderator)	
		Prof. Roshan Godaliyadda	
		Prof. Parakrama Ekanayake	
		Dr. Vijitha Herath	

16th December 2023

Room 7 (Physical)/ Session 01

Sustainable Construction and Green Building Techniques

Session Chair 1	Prof. Chintha Jayasinghe	Session Coordinator 1	Ms. Isuri Sewwandi
Session Chair 2	Dr. I. M. S. Sathyaprasad	Session Coordinator 2	Ms. Sadeepa Gamage
Time	Paper ID	Title	
09.00 - 09.15 hrs	ICSBE_38	DEVELOPMENT OF GEOPOLYMER PASTE USING BOTTOM ASH AND POTASSIUM HYDROXIDE AS THE PRIMARY POLYMERIZATION MATERIALS <i>G.G.R.N. Ranasinghe, K.M.C. Konthesingha, A. Branavan, I.R. Upasiri, P.M.W.P. Kumara</i>	
09.15 - 09.30 hrs	ICSBE_39	DURABILITY OF ORDINARY CONCRETE MADE OF MANUFACTURED SAND AND OFFSHORE SAND <i>M.G.S. Asangi, K.M.C. Konthesingha, A. Branavan, I.R. Upasiri, W.P.H.P. Weerasinghe, H.M.S.C. Rathnasiri, P.M.W.P. Kumara</i>	
09.30 - 09.45 hrs	ICSBE_54	INVESTIGATING SUBSTRATE AMENDMENTS OF EXTENSIVE GREEN ROOFS FOR WATER SENSITIVE URBAN DESIGN <i>B.P.S.A. Premachandra, S. Himanujahn, B.C.L. Athapattu</i>	
09.45 - 10.00 hrs	ICSBE_57	MITIGATING URBAN HEAT ISLAND USING COOL PAVEMENT STRATEGY: A CASE STUDY IN COLOMBO, SRI LANKA <i>D.M.A.M.S.R. Andradi, S. Himanujahn, R.A.K.K. Perera, B.C.L. Athapattu</i>	
10.00 -10.15 hrs	ICSBE_68	CIRCULAR ECONOMIC APPLICATIONS IN SRI LANKAN ROAD CONSTRUCTION INDUSTRY <i>A.M.U.D.Palukadawala, S. M. Dissanayaka</i>	
10.15 -10.30 hrs	ICSBE_70	BIO-CEMENTATION OF DEMOLITION WASTES AND RECYCLED AGGREGATES FOR SUSTAINABLE PRODUCTION OF PAVING BLOCKS <i>H. N. Muhanna, R. K. M. Niras, U. N. C. Prasadini, S. Gowthaman, T. H. K. Nawarathna, M. Chen, S. Kawasaki</i>	
10.30 -10.45 hrs	ICSBE_91	FLEXURAL RESPONSE OF CEMENT MORTAR WITH ELECTRICAL CABLE WASTE <i>K.D.Y.G. Perera, Y.L.F. Ahamed, H.M.C.C. Somarathna</i>	
10.45 -11.00 hrs	ICSBE_199	OPTIMIZING SOLAR ENERGY HARVESTING THROUGH AI BASED DUAL-AXIS SOLAR TRACKING SYSTEM WITH REMOTE MONITORING <i>M.T.U.D. Mallikarathne, A.M.H.M. Abeysinghe, W.P.Madhushani Perera G.A.H.K.M. Gamlath</i>	

16th December 2023

Room 7 (Physical)/ Session 02

Sustainable Construction and Green Building Techniques

Session Chair 1	Prof. Chaminda Bandara	Session Coordinator 1	Ms. Isuri Sewwandi
Session Chair 2	Dr. Supun Jayasinghe	Session Coordinator 2	Ms. Sadeepa Gamage
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_93	MANUFACTURING SUSTAINABLE PAVING BLOCKS USING POLYMER MODIFIED BIO-CEMENTATION <i>N.M. Mustak, H.R.H. Haseeb, R.M.P. Madushanka, A.M.G.G.G. Thilakarathna, T.H.K. Nawarathna, S. Gowthaman</i>	
11.45 - 12.00 hrs	ICSBE_96	A STUDY ON ENHANCING AIR QUALITY AND THERMAL COMFORT USING NATURAL VENTILATION IN A LARGE AUDITORIUM <i>L. K. Gurusinghe, J. S. Manawasinghe, P. B. Boyagoda</i>	
12.00- 12.15 hrs	ICSBE_143	FLEXURAL BEHAVIOUR OF REINFORCED RUBBERIZED CONCRETE BEAM <i>A.P.I Jayanath, J.C.P.H Gamage, E.R.K Chandrathilakae</i>	
12.15- 12.30 hrs	ICSBE_153	FRAMEWORK TO DECIDE ON THE APPROPRIATENESS OF RECYCLED CONCRETE AGGREGATES AS A CONSTRUCTION MATERIAL IN DIFFERENT CONSTRUCTION PROJECTS IN SRI LANKA: WITH AN INSIGHT OF THE COST BENEFIT ANALYSIS <i>A. M. M. Hiranya, T. Wijesinghe, B. K. C. Perera</i>	
12.30 12.50 HRS	ICSBE_405	Chathushika Ekanayake ^{1*} , Priyan Mendis ² , Shiromal Fernando ³ , Massoud Sofi ²	

16th December 2023

Room 7 (Physical)/ Session 03

Sustainable Construction and Green Building Techniques

Session Chair 1	Dr. Samith Buddhika	Session Coordinator 1	Ms. Isuri Sewwandi
Session Chair 2	Dr. Kamal Karunananda	Session Coordinator 2	Ms. Sadeepa Gamage
Time	Paper ID	Title	
14.15 - 14.30 hrs	ICSBE_154	IMPACT ON LARGE-SCALE BUILDERS OF THE CONSTRUCTION INDUSTRY IN SRI LANKA IN THE FACE OF THE CURRENT ECONOMIC CRISIS <i>K. U. Ranjith, K. A. N. Gunarathna, J.U. Kumarathunga</i>	
14.30 - 14.45 hrs	ICSBE_245	A STUDY ON THE SENSE OF COMMUNITY AND BEHAVIOUR PATTERNS OF INHABITANTS IN NUGEGODA COMMERCIAL STREETS <i>M.A.G. Medonza, M.G.P. Manelgama, J. Wijewardana</i>	
14.45 - 15.00 hrs	ICSBE_354	MECHANICAL PROPERTIES OF GREEN CONCRETE CONTAINING POLYPROPYLENE PLASTIC WASTE <i>T. Abirami, K. G. D. I. H. Thilakarathna, W. A. R. U. Weragama, C. S. Bandara1, H. D. Yapa, P. B. R. Dissanayake</i>	
15.00 - 15.15 hrs	ICSBE_345	RESETTLEMENT STRATEGIES AND SUSTAINABLE DEVELOPMENT: A CASE STUDY OF THE MORAGOLLA HYDROPOWER PROJECT <i>N. W. Bulathge, C K S Handagala, E M T K Ekanayake</i>	
15.15 - 15.30 hrs	ICSBE_265	HIGHWAY SOLARISATION IN SRI LANKA: A GIS-BASED EVALUATION OF SOLAR ENERGY POTENTIAL ON THE SOUTHERN EXPRESSWAY <i>W.M.S.S. Dias, W.B.M.R.S. Basnayaka</i>	
15.30- 15.45 hrs	ICSBE_214	EFFECT OF THE FLEXURAL STRENGTH ON FINGER-JOINTED WOOD WITH 25mm FINGER LENGTH AND 19 mm FINGER LENGTH <i>C.K. Muthumala, K.D.A. Abeysekara, P.L.A.G. Alwis, Sudhira de Silva , K.K.I.U. Arunakumara</i>	
15.45 – 16.00 hrs	ICSBE_71	A COMPARATIVE STUDY OF THE GOLDEN RATIO AND THE BUDDHIST ARCHITECTURAL PROPORTIONS IN SRI LANKAN RITUAL SPACE <i>C Abeywardana, C Palliyaguru, P Rathnayaka</i>	

16th December 2023

Room 7 (Physical)/ Session 03

Sustainable Construction and Green Building Techniques

Session Chair 1	Dr. Chandana Siriwaradana	Session Coordinator 1	Ms. Isuri Sewwandi
Session Chair 2	Dr. Damith Mohotti	Session Coordinator 2	Ms. Sadeepa Gamage
Time	Paper ID	Title	
16.35 - 16.50 hrs	ICSBE_164	ASSESSMENT OF THERMAL COMFORT LEVELS IN TYPICAL SCHOOL BUILDINGS IN THE SOUTHEASTERN REGION OF SRI LANKA <i>M.N. Nifal, A.M.M. Zeeras, J.A. Thamboo, A.M.A. Saja</i>	
16.50 - 17.05 hrs	ICSBE_188	INVESTIGATION OF PROPERTIES OF CONCRETE RELEVANT TO EARLY-AGE THERMAL CRACKING <i>R.M.S.S. Karunaratna, S.M.A. Nanayakkara</i>	
17.05 - 17.20 hrs	ICSBE_202	KITHUL WOOD REBARS FOR LIGHTLY LOADED ONE-WAY SLABS <i>H.L.I.D. Premathilake, I.S.K. Wijayawardane</i>	
17.20 - 17.35 hrs	ICSBE_235	BALANCING APPROACH BETWEEN CONSTRUCTION INDUSTRY AND ENVIRONMENTAL PROTECTION <i>KNKR Kodithuwakku</i>	
17.35 - 17.50 hrs	ICSBE_210	STRUCTURAL FEASIBILITY OF PRECAST FIBER-REINFORCED LIGHTWEIGHT CONCRETE WALL PANELS <i>S.B.M. Subasinghe, I.S.K. Wijayawardane</i>	

16th December 2023

Room 4 (Online)/ Session 01

Coastal Engineering Session

Join Zoom Meeting	https://zoom.us/j/98561175011?pwd=L0JpdVhtay9Dbk40VFMxd3JkZlN6Zz09		
	Meeting ID: 985 6117 5011 Passcode : 979488		
Session Chair 1	Dr. Daham Dias	Session Coordinator 1	Mr. Anjana Indunil
Session Chair 2	Dr. Balasubramaniam Janarthanan	Session Coordinator 2	Mr. J A R Kavinda
Time	Paper ID	Title	
09.00 – 09.15 hrs	ICSBE_101	EXTREME WAVE ANALYSIS WITHIN A CONFINED HARBOR BASIN: A CASE STUDY OF COLOMBO PORT <i>D. P. C. Laknath, I.G.I. K. Kumara, S.S.D.S Gunasekara</i>	
09.15 – 09.30 hrs	ICSBE_102	NUMERICAL MODELLING OF COASTAL PROCESSES FOR ENHANCED NAVIGATION THROUGH NATURALLY FORMED SUBMERGED REEFS <i>D. P. C. Laknath, I.L. Abeygoonasekara, D.E.N. Senarathne, K.K.P.P. Ranaweera</i>	
09.30 – 09.45 hrs	ICSBE_106	HARBOUR DEVELOPMENT IN BALAPITIYA: INSIGHTS FROM NUMERICAL MODELING OF COASTAL PROCESSES <i>D. P. C. Laknath, D.E.N. Senarathne, I.L. Abeygoonasekara, K.K.P.P. Ranaweera</i>	
09.45 – 10.00 hrs	ICSBE_196	CHANGE DETECTION FROM 2017-2022 OF MANGROVE AREA AROUND THAMPALAGAMAM BAY AND ESTIMATION OF CARBON DIOXIDE ABSORPTION OF MANGROVES IN A SELECTED AREA USING GIS AND REMOTE SENSING TECHNIQUES. <i>Jeyapalu Jathushan, V.P.A. Weerasinghe</i>	
10.00 – 10.15 hrs	ICSBE_259	BASIN RESONANCE STUDY FOR COLOMBO SOUTH HARBOR THROUGH LONG-WAVE STUDIES FOR ENHANCED PORT OPERATIONS <i>D. P. C. Laknath, I.G.I. K. Kumara, S.S.D.S Gunasekara</i>	

16th December 2023

Room 4 (Online)/ Session 02

Climate Change Session

Join Zoom Meeting	https://zoom.us/j/98561175011?pwd=L0JpdVhtay9Dbk40VFMxd3JkZIN6Zz09		
	Meeting ID: 985 6117 5011 Passcode :979488		
Session Chair 1	Dr. H.K.B.S. Chamara	Session Coordinator 1	Mr. Anjana Indunil
Session Chair 2	Dr. Dhanushika Manathunga	Session Coordinator 2	Mr. J A R Kavinda
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_75	SPATIO-TEMPORAL ANALYSIS OF MODIS-BASED LAND SURFACE TEMPERATURE USING GOOGLE EARTH ENGINE (GEE) IN AMPARA DISTRICT <i>Nuskiya, M.H.F., Zahir, I.L.M., Mohamed Thariq, M.G, Sunethra Thennakoon, Iyoob, A.L, Ameer, M.L.F.</i>	
11.45 - 12.00 hrs	ICSBE_194	ESTIMATION OF ANNUAL ENERGY PRODUCTION AND DEVICE PARAMETER OPTIMISATION IN SRI LANKAN WAVE CLIMATIC CONDITIONS <i>B.H.B.P.D. Baddegamage , R.L.K. Lokuliyana , S.D.G.S.P. Gunawardane, Y.H. Lee</i>	
12.00- 12.15 hrs	ICSBE_267	CLIMATE CHANGE AND PADDY CULTIVATION OF SRI LANKA <i>P.K Hitige, L.Y Hitige</i>	
12.15 - 12.30 hrs	ICSBE_33	ANALYSIS OF THE IMPACT OF THE CLIMATE CHANGE ON STORM SURGES AND GLOBAL EXTREME EVENTS IN THE 21 st CENTURY <i>B. Premaratne, F. Inam</i>	

16th December 2023

Room 4 (Online)/ Session 03

Sustainable Construction and Green Building Techniques

Join Zoom Meeting	https://zoom.us/j/98561175011?pwd=L0JpdVhtay9Dbk40VFMxd3JkZIN6Zz09		
	Meeting ID: 985 6117 5011 Passcode: 979488		
Session Chair 1	Dr. Shyanaka Dhananjaya	Session Coordinator 1	Mr. Anjana Indunil
Session Chair 2	Ms. Kamani Sylva	Session Coordinator 2	Mr. J A R Kavinda
Time	Paper ID	Title	
14.00 - 14.15 hrs	ICSBE_85	EFFICACY OF GREEN BUILDING RATING SYSTEMS TO PROTECT BIODIVERSITY OF SRI LANKA <i>S.U. Navimanager, S.N.C.M Dias, S. Manawadu</i>	
14.15 - 14.30 hrs	ICSBE_103	EFFECT OF ENERGY DEMAND AND THERMAL COMFORT OF LOW INCOME HOUSES; CASE OF MONARAGALA DISTRICT <i>KSKNJ Kudasinghe, H Munasinghe</i>	
14.30 - 14.45 hrs	ICSBE_116	LIFE CYCLE COST ANALYSIS OF GREEN BUILDING PROJECTS IN SRI LANKA <i>CV Rajasekara, DVH Dodangoda, WN Kawmudi</i>	
14.45 - 15.00 hrs	ICSBE_144	DEVELOPMENT OF A NOVEL WASTE BASED INSULATED PLASTER WITH WATER PROOFING ABILITY FOR ROOF SLABS <i>D.D. Weerakkody, J.C.P.H. Gamage, E. R. K. Chandrathilaka, Kajanana Selvaranjan</i>	
15.00 - 15.15 hrs	ICSBE_211	EFFECTIVENESS OF IMPLEMENTING SUSTAINABLE PUBLIC PROCUREMENT (SPP) PRACTICES IN THE SRI LANKAN CONSTRUCTION INDUSTRY <i>E. M. P. G. A Ekanayake, C Jayasinghe, K. P. H Perera, K. V. J. P Ekanayake</i>	
15.15 - 15.30 hrs	ICSBE_231	STUDY ON THE EFFECT OF JOINT THICKNESS ON COMPRESSIVE STRENGTH OF BLOCK MASONRY WALLS CONSTRUCTED WITH MANUFACTURED SAND MORTAR <i>P.L.L.T.D. Alwis, D. Nanayakkara</i>	
15.30 - 15.45 hrs	ICSBE_343	THE EXPRESSION OF HOME AND ITS ARCHITECTURAL MANIFESTATION IN THE SRI LANKAN CONTEXT <i>D.M.C.S.Pieris, J Wijesundara</i>	

16.00 – 16.30 hrs	Tea Break		
Session Chair 1	Dr. Rajib Malik	Session Coordinator 1	Mr. Anjana Indunil
Session Chair 2	Dr. Chamila Gunasekara	Session Coordinator 2	Mr. J A R Kavinda
16.00 - 16.15 hrs	ICSBE_167	FRAGMENTATION ANALYSIS OF PERI-URBAN NATURAL ECOSYSTEM; THE CASE OF BAHIRAWAKANDA TERRAIN, KANDY, SRI LANKA. <i>K.Y.M.Sirimewan , J.H.Dharmasena</i>	
16.15-16.30 hrs	ICSBE_264	UTILIZING MODULARIZATION TO ACHIEVE SUSTAINABLE CONSTRUCTION <i>P.T.P. Jayathunga, B. Edirisooriya, P.C.O. Fernando, N. Herath, K.K. Jayasinghe</i>	
16.40-16.55 hrs	ICSBE_15	TOWARDS SUSTAINABLE BUILDINGS: A REVIEW ON BUILDING MATERIAL SELECTION <i>S. V. Gurupatham, C. Jayasinghe, P. Perera, R. Lepakshi</i>	
16.55 - 17.10 hrs	ICSBE_34	CLIMATE SMART ROOFING MATERIALS AND TECHNOLOGIES IN SRI LANKAN CONSTRUCTION INDUSTRY: SPECIAL ATTENTION TO EASTERN PROVINCE <i>R. Sathurshan, K.B.A. Silva</i>	
17.10 - 17.25 hrs	ICSBE_272	ANALYSING THE DAYLIGHT DISSEMINATION IN HIGH-RISE INTERIORS: A ZONE-SPECIFIC CASE STUDY AT SAINTGITS <i>C. Punnya Brahmanand, M. Dhanyasree, Sajan Thomas, Joselin Herbert, Jacob Thottathil Varghese, Basil George Thomas, Arjun Venugopal, Siju K</i>	
17.25 - 17.40 hrs	ICSBE_228	EXPLORING URBAN WALKABILITY: AN ASSESSMENT OF SIDEWALKS AND PEDESTRIAN FACILITIES IN PUBLIC TRANSPORT DISTRICTS; IN ACCORDANCE WITH THE GREEN SL® RATING SYSTEM FOR SUSTAINABLE CITIES -THE CASE OF PETTAH, SRI LANKA <i>S.R. Dharmasena, K.D.S. Nimashi</i>	
17.40 - 17.55 hrs	ICSBE_223	SUITABILITY OF PLASTIC MODIFIED ASPHALT CONCRETE (PMAC) IN SRI LANKAN CONTEXT <i>N. M. R. S. P. Nawela, Dr. J. Samaranayake</i>	
17.55 – 18.10 hrs	ICSBE_273	THE CURRENT GROWTH OF GREEN ENERGY AND ITS DEVELOPMENT IN INDIA <i>Er. Aditya Singh</i>	

17th December 2023

Room 1 (Hybrid)/ Session 01

Innovations in Building Materials Session

Join Zoom Meeting

<https://us06web.zoom.us/j/88101147875?pwd=S2qhrrM0Aa40PR7tH3UoxOZUic1xK.1>

Meeting ID: 881 0114 7875 Passcode: 672369

Session Chair 1

Prof. Chintha Jayasinghe

Session Coordinator 1

Mr. Chamath Pigera

Session Chair 2

Dr. P. B. G. Dissanayake

Session Coordinator 2

Mr. Hashan Thilakarathna

Time

Description

Facilitator

09.00 - 09.05 hrs

Introduction to keynote
Lecturer

Dr. P. B. G. Dissanayake

09.05 - 09.25 hrs

Keynote Lecture

Prof. Chintha Jayasinghe

Time

Paper ID

Title

09.25 – 09.40 hrs

ICSBE_229

THE SUCCESS OF SUSTAINABLE MATERIALS IN CREATING
SUSTAINABLE BUILT ENVIRONMENT: AN INSIGHT FROM LOCAL
CONSTRUCTION PRACTICES
G.W.J.K.K. Wijesundara

09.40 – 09.55 hrs

ICSBE_120

THE USE OF WIRE MESH-FLEXIBLE CEMENTITIOUS POLYMER
COMPOSITE FOR STRENGTHENING REINFORCED
CONCRETE BEAMS
*M.A.V.H.M. Arachchi, S.P.R.S. Jayasinghe, H.M.C.C.
Somarathna, D. Mohotti*

09.55 – 10.10 hrs

ICSBE_131

SYNERGISTIC EFFECTS OF GRAPHENE OXIDE - SILICA
NANOHYBRIDS ON THE PROPERTIES OF CEMENT MORTAR
*Suganthiny Ganesh, S. V. T. Janaka Perera, Charitha Thambiliyagodage, R.
K. N. D. Rajapakse*

10.10 – 10.25 hrs

ICSBE_142

BEHAVIOR OF DAMAGED REINFORCED RUBBERIZED CONCRETE
BEAMS STRENGTHEN WITH CARBON FIBER REINFORCED
POLYMERS
R.K.S. Maleesha, J.C.P.H. Gamage, E.R.K. Chandrathilaka

10.25 – 10.40 hrs

ICSBE_117

ENHANCEING IMPACT RESISTANCE OF MASONRY STRUCTURES
WITH FLEXIBLE CEMENTITIOUS POLYMERS COATINGS
*T.V. Muthukumarana, P.L.D.C. Liyanage, H.M.C.C.
Somarathna, S.N. Raman*

10.40 – 10.55 hrs

ICSBE_241

GYPSON BOARD REINFORCED WITH PINEAPPLE LEAF FIBER
T.P. Jagoda1, K.M.C. Konthesingha 1, S.M.A. Nanayakkara 2, P.M.W.P.
Kumara, H.M.S.C. Rathnasiri, I.R. Upasiri, W.P.H.P.
Weerasinghe1, A. Branavan*

10.55 – 11.10 hrs

ICSBE_119

FEASIBILITY OF USING PALMYRA STRIPS AS REINFORCING
MATERIAL IN LIGHTLY LOADED CONCRETE BEAMS
*R.C. Dissanayake, S. Lusiyashtharsikka, H.M.C.C. Somarathna
1,2*, B. Kiriparan*

17th December 2023

Room 1 (Hybrid)/ Session 02

**Bridge Design Construction and Maintenance
(Organized by the IABMAS Sri Lanka Group)**

Join Zoom Meeting

<https://us06web.zoom.us/j/88101147875?pwd=S2qhrrM0Aa40PR7tH3UoxOZUiiClxK.1>

Meeting ID: 881 0114 7875 Passcode: 672369

Time	Description	Facilitator
11.30 - 11.40 hrs	Welcome Address	Prof. Ranjith Dissanayake
11.40 – 11.45 hrs	Introduce Keynote 01 Speaker	
11.45 – 12.10 hrs	Keynote 01	Prof. Mitsuyoshi Akiyama
12.10 – 12.15 hrs	Introduce Keynote 02 Speaker	
12.15 – 12.40 hrs	Keynote 02	Prof. Upul Attanayake
12.40 – 12.50 hrs	Vote of Thanks	Prof. Chaminda Bandara

17th December 2023

Room 1 (Hybrid)/ Session 03

**Bridge Design Construction and Maintenance
(Organized by the IABMAS Sri Lanka Group)**

Join Zoom Meeting

<https://us06web.zoom.us/j/88101147875?pwd=S2qhrM0Aa40PR7tH3UoxOZUii1xK.1>

Meeting ID: 881 0114 7875 Passcode: 672369

Session Chair 1

Prof. Chaminda Bandara

Session Coordinator 1

Mr. Chamath Pigera

Session Chair 2

Dr. Dammika Abeykoon

Session Coordinator 2

Mr. Hashan Thilakarathna

Time

Paper ID

Title

14.15 - 14.30 hrs

IABMAS_73

ROTATIONAL FLEXIBILITY OF DOUBLE-ANGLE RIVETED BRIDGE CONNECTIONS
B Imam, N Burud, M K Chryssanthopoulos

14.30 - 14.45 hrs

IABMAS_182

LOAD TESTING AND RATING OF A PC BRIDGE WITHOUT STRUCTURAL PLANS
C. Hutchinson, A. Peiris, I. Harik

14.45 - 15.00 hrs

IABMAS_148

POSTTENSION MODELLING TECHNIQUES FOR A TIE GIRDER OF A NETWORK TIED ARCH BRIDGE
B. M. K. L. K. Basnayake, U. B. Attanayake

15.00 - 15.15 hrs

IABMAS_191

DEVELOPMENT OF EARTHQUAKE RESISTANT DESIGN GUIDELINES FOR BRIDGES IN SRI LANKA
M.A.C. Kumara, C.S. Lewangamage

15.15 - 15.30 hrs

IABMAS_247

A COMPARATIVE STUDY ON APPROACHES TO ESTIMATE LATERAL DISTORTIONAL BUCKLING STRENGTH IN STEEL-CONCRETE COMPOSITE BEAMS
W. M. A. D. Wijethunge, A. J. Dammika, C. S. Bandara, J. A. S. C. Jayasinghe

15.30- 15.45 hrs

IABMAS_257

FINITE ELEMENT MODELLING OF DUCTILE FRACTURE BEHAVIOUR OF THICK-WALLED STEEL HOLLOW BOX PIERS UNDER LATERAL CYCLIC LOADINGS
A. C. D. Pigera, M. Jenothan, J. A. S. C. Jayasinghe, C. S. Bandara, A. J. Dammika

15.45- 16.00 hrs

IABMAS_132

EVALUATION OF THE DEGREE OF UNCERTAINTY IN ASSESSING DETERIORATED PC I-BEAM END CAPACITY
S. K. Bhowmik, Y. Hu1, U. B. Attanayake

16.00 - 16.15 hrs

IABMAS_134

ULTIMATE LOAD CAPACITY OF SUSPENSION BRIDGE AT MALIBADA, SRI LANKA
R.C.S. Jinadasa, P.A.K. Karunananda

16.15 - 16.30 hrs

IABMAS_135

ADDRESSING SUSTAINABILITY THROUGH INNOVATIVE MIX DESIGNS AND IMPLEMENTATION OF ACCELERATED BRIDGE CONSTRUCTION TECHNIQUES
B. M. K. L. K. Basnayake, U. B. Attanayake, M. LaViolette, P. Pakala4, R. Goniwiecha

16.15 - 16.30 hrs

IABMAS_362

ENGINEERED CEMENTITIOUS COMPOSITE BEAMS IN IMPACT DAMAGE MITIGATION FOR BRIDGE PIERS
Kasun Wijesooriya, Shiyao Zhu, Sanket Rawat, Chi-King Lee, Damith Mohotti

16.30-16.45 hrs

IABMAS_361

EXPERIMENTAL INVESTIGATION OF DYNAMIC BEHAVIOR OF PRESTRESSED CONCRETE BRIDGE GIRDERS
G.B. Dissanayake, A.J Dammika, C.S. Bandara, J.A.S.C Jayasinghe, P.B.R. Dissanayake

17th December 2023

Room 2 (Hybrid)/ Session 01

Water Pollution and Water Treatment Technologies Session

Join Zoom Meeting	https://zoom.us/j/97144657867?pwd=dm5vZzl4c3BLRVB2bXc2QmV1MHhEZz09		
	Meeting ID: 971 4465 7867 Passcode :816212		
Session Chair 1	Prof. Ayantha Gomes	Session Coordinator 1	Mr. Ravindra Ekanayake
Session Chair 2	Dr. Panduka Neluwala	Session Coordinator 2	Mr. Ravindu Udara
Time	Paper ID	Title	
09.00 - 09.15 hrs	ICSBE_86	SIMULTANEOUS ELECTROCOAGULATION AND ELECTROCHEMICAL OXIDATION FOR REMOVING NATURAL ORGANIC MATERIALS FROM WATER <i>B. U. Kaushalya, P. V. Kahawearachchi, H. G. S. S. U. Priyankara, K. G. N. Nanayakkara</i>	
09.15 - 09.30 hrs	ICSBE_110	MODELLING SIMULATION OF ELECTROCHEMICAL CELLS FOR WATER TREATMENT <i>H.G.S.S.U. Priyankara, T.R.E.A.H.D. Rajapaksha, K.G.N. Nanayakkara</i>	
09.30 - 09.45 hrs	ICSBE_262	ULTRASONIC MODIFICATION OF ADSORBENTS FOR ENHANCEMENT OF THE PERFORMANCE IN DYE REMOVAL FROM AQUEOUS SOLUTION <i>L.K.K.N. Perera, K.H.M. Kuruwita, B.M.W.P.K. Amarasinghe</i>	
09.45 - 10.00 hrs	ICSBE_185	CASE STUDIES OVER THE FAILURE OF ONSITE SEWERAGE TREATMENT SYSTEMS IN SRI LANKA <i>U.G. Amarawickrama, T.D. Denagama</i>	
10.00 - 10.15 hrs	ICSBE_221	A REVIEW OF IMPACTS OF OCEAN ACIDIFICATION ON CORAL REEFS <i>P.M.M. Nilusha, M. Danthurebandara, C. S. Kalpage</i>	
10.15- 10.30 hrs	ICSBE_239	HEALTH QUALITY ASSESSMENT OF THE BEERALLA STREAM IN ELLA WITH RESPECT TO THE SELECTED PHYSICO-CHEMICAL AND BIOLOGICAL FACTORS IN WATER: AN ASSESSMENT OF THE EFFECTS OF UNSUSTAINABLE TOURISM PRACTICES <i>R. M. A. Dilini, J. Manatunge, G.G.N. Thushari, S.M. Gnanasingha</i>	
10.30- 10.45 hrs	ICSBE_21	USE OF BULKING AGENTS FOR COMPOSTING SECONDARY SEWAGE SLUDGE FROM WASTEWATER TREATMENT PLANTS; A REVIEW <i>S.V. Chandeepea, C.S. Kalpage</i>	

17th December 2023

Room 2 (Hybrid)/ Session 02

Water Resources Planning and Pollution Control Session

Join Zoom Meeting	https://zoom.us/j/97144657867?pwd=dm5vZzl4c3BLRVB2bXc2QmV1MHhEZz09		
	Meeting ID: 971 4465 7867 Passcode 816212		
Session Chair 1	Dr. G. M. P. R. Weerakoon	Session Coordinator 1	Mr. Ravindra Ekanayake
Session Chair 2	Dr. Chandima Gunawardana	Session Coordinator 2	Mr. Ravindu Udara
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_01	A STUDY ON GARBAGE ACCUMULATION IN MAHAWELI RIVER, NEAR POLGOLLA RESERVOIR T.D. Denagama, D.E. Liyanage	
11.45 - 12.00 hrs	ICSBE_40	IMPROVED OPERATION OF MINIPE LEFT BANK CANAL IRRIGATION SYSTEM <i>S. Ranwala, U.H.M.S. Silva, K.D.W. Nandalal</i>	
12.00- 12.15 hrs	ICSBE_55	ASSESSING THE STRUCTURAL STRENGTH OF FABRICATED BURNT CLAY ECO-BRICKS WITH RICE HUSK ASH AND ALUM SLUDGE	
12.15- 12.30 hrs	ICSBE_128	A CASE STUDY ON THE QUALITY ASSURANCE AND CONTROLLING PRACTICES IN THE WATER SUPPLY PROJECTS OF THE NATIONAL WATER SUPPLY AND DRAINAGE BOARD SRI LANKA (NWSDB-SL). <i>Jathursan S, Gobidan N.N</i>	
12.30 - 12.45 hrs	ICSBE_203	ENHANCING FISH HEALTH, WATER QUALITY, AND ENVIRONMENTAL RESPONSIBILITY WITH AN INTEGRATED AQUAPONIC APPROACH TO REVERSE OSMOSIS (RO) REJECT WATER MANAGEMENT <i>W.P.Madhushani Perera, M.T.U.D. Mallikarathne, G.A.H.K.M. Gamlath1, A.M.H.M. Abeyasinghe</i>	
12.45 - 13.00 hrs	ICSBE_224	OPTIMIZING PHYSICS PARAMETERS FOR HEAVY RAINFALL FORECASTING IN THE KELANI RIVER BASIN USING THE WRF MODEL <i>P.L.L.N. Perera, N.G.P.B. Neluwala, J.J.Wijetunge</i>	

17th December 2023

Room 2 (Hybrid)/ Session 03

Water Resources Planning and Pollution Control Session

Join Zoom Meeting	https://zoom.us/j/97144657867?pwd=dm5vZzl4c3BLRVB2bXc2QmV1MHhEZz09		
	Meeting ID: 971 4465 7867 Passcode: 816212		
Session Chair 1	Prof. W. M. S. A. Weerakoon	Session Coordinator 1	Mr. Ravindra Ekanayake
Session Chair 2	Prof. Shameen Jinadasa	Session Coordinator 2	Mr. Ravindu Udara
Time	Paper ID	Title	
14.15 - 14.30 hrs	ICSBE_108	SCALE EFFECT ON RAINFALL-RUNOFF MODELING IN UPPER KELANI RIVER BASIN, SRI LANKA <i>M.K.D.K.C. Madapatha, W.A.I. Madhawa, M.M.G.T. De Silva</i>	
14.30 - 14.45 hrs	ICSBE_111	WATER QUALITY MODELLING AND IMPROVEMENT OF WATER SAFETY OF RAMBAKAN OYA RESERVOIR CATCHMENT IN MAHA OYA IRRIGATION DIVISION <i>Y.M Saifudeen, A.J.F Mazeera, A.C.A Suja</i>	
14.45 - 15.00 hrs	ICSBE_118	DYNAMIC BEHAVIOR OF SALINITY INTRUSION IN KELANI RIVER, SRI LANKA <i>V.D. Athuraliya, N.G.P.B. Neluwala, K.P.P.Pathirana</i>	
15.00 - 15.15 hrs	ICSBE_121	ORGANIC MEMBRANE FILTERS FOR TEXTILE WASTEWATER TREATMENT: A REVIEW <i>R.P.D.D. Senarathne, C.S. Kalpage</i>	
15.15 - 15.30 hrs	ICSBE_123	DETECTION OF MICROPLASTICS FROM DOMESTIC LAUNDERING USING ATTENUATED TOTAL REFLECTANCE – FOURIER TRANSFORM INFRARED (ATR-FTIR) SPECTROSCOPY <i>Vigneswaran Nitharshan, Sajani Kolambage, Tharanja Gobal Krishnan, Aravinda Nirella, Nimantha Jayanaka, Pradeep Gajanayake, Rohan S. Dassanayake,</i>	
15.30- 15.45 hrs	ICSBE_126	ACCURACY OF CURVE NUMBER METHOD IN ESTIMATING RAINFALL-RUNOFF RELATIONSHIP FOR SUGARCANE LAND USE UNDER TROPICAL CLIMATE IN SRI LANKA: A COMPARATIVE STUDY OF MEASURED AND COMPUTED DATA <i>L. M. J. R. Wijayawardhana, K. D. N. Weerasinghe and C. M. Navaratne</i>	
15.45- 16.00 hrs	ICSBE_95	ASSESSMENT OF THE BEHAVIOUR OF FLOW PATTERNS WITH THE PRESENCE OF R PUMP HOUSE, RAISING OF FLOOD BUNDS USING 2D HYDRAULIC NUMERICAL MODELING <i>S.M.Hewavidana, K. Subasinghe</i>	
16.00 – 16.15 hrs	ICSBE_355	MODELLING STORM WATER MANAGEMENT SYSTEMS IN RESPONSE TO DIFFERENT RAINFALL AND LAND USE PATTERNS <i>Pramudika W.O.H, Ubhayaratna K.M.M, Gunawardana W.C.T.K.</i>	

17th December 2023

Room 3 (Hybrid)/ Session 01

CAS Special Session : Advancements in Eco-Environmental Sciences and Water Treatment: A Multidisciplinary Approach (JRDC Session)

Join Zoom Meeting

<https://zoom.us/j/97717785708?pwd=QU5FMnpUNk44elBhWUhsVGVoZWJ3Zz09>

Meeting ID: 977 1778 5708 Passcode: 182599

Session chair 1	Prof. Rohan Weerasooriya	Session Coordinator 1	Mr. Dilan Danushka
Session chair 1	Prof. Yuansong Wei	Session Coordinator 2	Mr. J A I D Viduranga
Time	Description	Facilitator	Title
9.00 – 9.20 hrs	Keynote	Prof. Yuansong Wei	Resilience of anammox application from sidestream to mainstream: a combined system coupling denitrification, partial nitrification and partial denitrification with anammox
Time	Paper ID	Title	
09.20 – 09.35 hrs	ICSBE_370	DETECTION OF CRYPTOSPORIDIUM AND CORONAVIRUS IN INFLUENT AND EFFLUENT WATER IN SELECTED WATER TREATMENT PLANTS ALONG THE MAHAWELI RIVER IN KANDY DISTRICT <i>P.T.A. Thilakarathna, S. Athukorala, F. Fareed, R.N. Jinadasa, T.N. Premachandra, M. Makehelwela³, B.R. Fernando¹, S.K. Weragoda, Yawei Wang, Zhang Yu, Min Yang and S.H.P.P. Karunaratne</i>	
09.35 -09.50 hrs	ICSBE_371	DIVERSITY AND ANTIBIOTIC RESISTANCE OF HETEROTROPHIC BACTERIA IN DRINKING WATER: A STUDY ALONG THE MAHAWELI RIVER WATER TREATMENT PLANTS FROM KOTAGALA TO BALAGOLLA <i>P.T.A. Thilakarathna, S. Athukorala, F. Fareed, R.N. Jinadasa, T.N. Premachandra, M. Makehelwela, B.R. Fernando, S.K. Weragoda, Yawei Wang, Zhang Yu, Min Yang and S.H.P.P. Karunaratne</i>	
09.50 – 10.05 hrs	ICSBE_372	EXPERIENCES OF CHINESE ECO-INDUSTRIAL PARK DEVELOPMENT	
10.05 – 10.20 hrs	ICSBE_373	EFFECTS OF DRINKING WATER FLUORIDE AND HARDNESS ON BOVINE SERUM BIOCHEMICAL PROPERTIES IN HIGH CKDU PREVALENCE AREAS IN SRI LANKA UNDER ONE HEALTH APPROACH <i>H.M.S.Wasana, G.D.R.K.Perera, I.A.M.P. Ileperuma, H.T.K. Abeyesundara⁶ L. Jayarathne, Youngsong Wei</i>	

10.20 – 10.35 hrs	ICSBE_374	OPTIMIZATION STRATEGY OF GRAVITY-DRIVEN MEMBRANE FILTRATION BASED ON MICROBIAL RISK CONTROL IN PERMEATE <i>Qingke Yuan, Hao Zhao, Yanfeng Liu, Ying Meng, Fubo Luan</i>
10.35 - 10. 50 hrs	ICSBE_375	FLUORESCENCE CHARACTERISTICS OF DISSOLVED ORGANIC MATTER IN GROUNDWATER AND SURFACE WATER IN TANK CASCADE SYSTEMS IN THE DRYZONE OF, SRI LANKA <i>S. Indika, Y.S. We, D.Z. Hu, I. Yapabandara, S. Athauda., T. Cooray, M. Makehelwala, K.B.S.N. Jinadasa, S.K. Weragoda R. Weerasooriya</i>
10.50 - 11.05 hrs	ICSBE_376	IMPACT OF ORGANIC FERTILIZER RATIOS ON MICROBIAL COMMUNITIES IN AGRICULTURAL RUNOFF: A FIELD SIMULATION STUDY <i>WANG Jinshi, HOU Yaojun, WANG Zhirong, WANG Yawei, WEI Yuansong</i>

Tea Break

Time	Paper ID	Title
11.30 - 11.40 hrs	ICSBE_377	TEMPORAL AND SPATIAL DYNAMICS OF WATER QUALITY PARAMETERS IN BEIRA LAKE: SEASONAL VARIATIONS AND ECOLOGICAL IMPLICATIONS
11.40 - 11.50 hrs	ICSBE_378	ANALYSIS OF MEMBRANE FOULING CHARACTERISTICS AND CLEANING STRATEGIES OF NANOFILTRATION PLANT WITH DECENTRALIZED WATER SUPPLY FROM RURAL GROUNDWATER SOURCES <i>HU Da-zhou, SURESH-Indika, WEI Yuan-song</i>
11.50 - 12.00 hrs	ICSBE_379	CHARACTERISTICS OF DISSOLVED ORGANIC MATTERS IN THE TREATMENT OF THE DEWATERING LIQUOR OF ANAEROBIC DIGESTION PRETREATED BY THERMAL HYDROLYSIS <i>YUE Wen-hui, LIU Ji-bao, GUO Jian-ning, WEI Yuan-song, SUI Qian-wen</i>
12.00 - 12.10 hrs	ICSBE_380	POWDERED ACTIVATED CARBON-CATALYZED MN(II) REMOVAL BY FREE CHLORINE FOR CONTROLLING DRINKING WATER DISCOLORATION PROBLEMS <i>G. Li, and B. Shi</i>
12.10 - 12.20 hrs	ICSBE_381	INTEGRATION OF SULFAMMOX AND SULFIDE-DRIVEN AUTOTROPHIC DENITRIFICATION (SDAD) PROCESSES IN ANAEROBIC MBR FOR TREATING RUBBER INDUSTRY WASTEWATER WITH HIGH AMMONIA AND SULFATE <i>T.I.P. Wimalaweera, F. Zuo, Q.Tang, K.B.S.N. Jinadasa, S.K. Weragoda, T. Ritigala, R. Weerasooriya, M. Makehelwala, and Y.S. Wei</i>
12.20 - 12.30 hrs	ICSBE_382	INVESTIGATING THE HYDROCHEMICAL COMPOSITIONS AND EVOLUTION OF GROUNDWATER DUE TO THE INFLUENCE OF SEAWATER INTRUSION IN THE MANNAR DISTRICT, SRI LANKA <i>Samadhi Athauda, Yunwen Wang, Zhineng Hao, Suresh Indika, Isuru Yapabandara, Sujithra K. Weragoda, Jingfu Liu and Yuansong Wei</i>
12.30 12.40 hrs	ICSBE_383	FOULING MECHANISMS AND EFFECTIVE CLEANING STRATEGIES FOR ELECTRODIALYSIS DISTILLATION IN BRACKISH GROUNDWATER TREATMENT <i>Malalagama T.P, Binghui Tian, Gunathilake M.D.D.R, Min Yang</i>
12.40 - 12.50 hrs	ICSBE_384	A COMPREHENSIVE STUDY ON APPLICABILITY AND OPTIMIZED DOMESTIC TREATMENT PLANTS FOR GROUNDWATER REVITALIZATION IN THE CKDU-AFFECTED DRY ZONE OF SRI LANKA <i>M.D.D.R. Gunathilake, Y.D. Kahatapitiya, B.K.R.S. Wanshanatha, R.M.C.P. Rathnayaka, T.P. Malalagama, M. Makehelwala, S.K. Weragoda, Binghui Tian</i>
12.40 - 12.50 hrs	ICSBE_104	IMPORTANCE OF STUDY ON BIOFILM CHARACTERIZATION WITHIN WATER DISTRIBUTION NETWORKS

17th December 2023

Room 3 (Hybrid)/ Session 03

Urban Landscape Ecological Planning Session

Join Zoom Meeting

<https://zoom.us/j/97717785708?pwd=QU5FMnpUNk44elBhWUhsVGVoZWJ3Zz09>

Meeting ID: 977 1778 5708 Passcode: 182599

Session chair 1

Prof. Lalitha Dissanayake

Session Coordinator 1

Mr. Dilan Danushka

Session chair 1

Professor Maros Finka

Session Coordinator 2

Mr. J A I D Viduranga

Time

Description

Facilitator

14.15 - 14.30 hrs

Keynote Lecture 01

Prof. Cristian Loja from the University of Bucharest

Time

Paper ID

Title

14.30 - 14.45 hrs

ICSBE_280

A COMPARATIVE LIFE CYCLE ASSESSMENT OF E-THEIS AND BOUND THESIS USING THE GATE-TO-GATE APPROACH
Y Suwarkka, K Kumareswara, M Atapattu

14.45 - 15.00 hrs

ICSBE_290

ENHANCING URBAN FLOOD RESILIENCE THROUGH PERVIOUS CONCRETE: INNOVATIVE SOLUTIONS FOR SUSTAINABLE URBAN LANDSCAPING
M.N.M Shahmy, D.D Dias and U.B.S Fernando

15.00 - 15.15 hrs

ICSBE_292

ASSESSING THE IMPACT OF WETLAND CONVERSION TO UNREGULATED URBAN DEVELOPMENT ON FLOOD RISK: A GIS-BASED ANALYSIS OF THE MEDA ELA AND PINGA OYA CATCHMENTS IN KANDY DISTRICT
W.M.S.S. Dias, and D.M.L. Dissanayake

15.15 - 15.30 hrs

ICSBE_299

GREEN IMPRESSIONS: UNDERSTANDING URBAN VEGETATION PERCEPTIONS IN UNESCO HERITAGE CITY KANDY

15.30 - 15.45 hrs

ICSBE_301

ASSESSING THE LEVEL OF CONNECTIVITY OF THE RIVERSCAPE STRUCTURE: A SPATIAL GRAPH-BASED APPROACH
D.D. Weerakkody, J.C.P.H. Gamage, E. R. K. Chandrathilaka, Kajanan Selvaranjan

15.45 - 16.00 hrs

ICSBE_249

STUDY ON THE CONTRIBUTION OF ART IN ENHANCING THE PLACE ATTACHMENTS IN URBAN CONTEXT
R.R Samaraturunge, D. De Silva, J. Wijesundara

16.00 - 16.15 hrs

ICSBE_05

THE ROLE OF COMMUNITY PARTICIPATION IN DISASTER RISK REDUCTION INITIATIVES WITH SPECIAL REFERENCE TO THE BATTICALOA CITY
Y. Arthy

Tea Break

16.45 - 17.00 hrs	ICSBE_269	URBAN GOVERNANCE AND POLICY FORMULATION IN URBAN SLUMS AND SHANTY DWELLERS IN SRI LANKA (SPECIAL REFERENCE TO THE 'HAVELOCK' SLUMS IN COLOMBO DISTRICT) <i>H.A.S.U. Geethanjalee, and D.M.Y. Abeywardhana</i>
17.00 - 17.15 hrs	ICSBE_193	THE ROLE OF CULTURAL VALUE IN SUSTAINABLE URBAN DEVELOPMENTS WITH SPECIAL REFERENCE TO THE FLOATING MARKET IN PETTAH <i>R.T.L.S. Rajapaksha , N.L. Rubasin Gamage, H.P. Munasinghe</i>
17.15 - 17.30 hrs	ICSBE_256	MACHINE LEARNING APPROACH FOR MODELING MODE CHOICE DECISIONS OF SRI LANKAN TRAVELLERS <i>W.D Lakmini, I.C.S Jayasena, W.R.S.S Dharmarathna, U. Jayasinghe</i>
17.30 - 17.45 hrs	ICSBE_340	INFLUENCE OF URBAN PARKS ON URBAN THERMAL ENVIRONMENT – A CASE STUDY: INTERMEDIATE ZONE & ARID ZONE IN SRI LANKA <i>W.G.K.D.Jayalath, T.A.N.T.Perera, G.Y.Jayasinghe</i>
17.45 - 18.00 hrs	ICSBE_183	RESUE LEFTOVERS: PERSEPTIONS OF TOURISTS ON ADAPTIVE REUSE OF BUILDINGS AS HOTELS & CAFES <i>K.B Seenapatabendige</i>
18.00 - 18.15 hrs	ICSBE_250	A STUDY ON COMMUNITY HABITS AND LIFESTYLE CHOICES WITH SPECIAL REFERENCE TO NUGEGODA LOCALITY <i>K.A.S. Rathugamage, D. De Silva, J. Wijesundara</i>
18.15 - 18.30 hrs	ICSBE_298	URBAN FOREST ECOSYSTEM SERVICES AND MANAGEMENT: A CASE STUDY OF THE THREE MAIN FOREST PATCHES WITHIN KANDY CITY, SRI LANKA <i>D.M.L. Dissanayake, and G.K.C.R. Kapuge</i>

17th December 2023

Room 4 (Online)/ Session 01

Water Resource Planning and Pollution Control Session

Join Zoom Meeting	https://zoom.us/j/98561175011?pwd=L0JpdVhtay9Dbk40VFMxd3JkZlN6Zz09		
	Meeting ID: 985 6117 5011 Passcode: 979488		
Session chair 1	Prof. Nadeeshani Nanayakkara	Session Coordinator 1	Mr. Anjana Indunil
Session chair 1	Dr. Sujithra Weragoda	Session Coordinator 2	Mr. J A R Kavinda
Time	Paper ID	Title	
09.00 – 09.15 hrs	ICSBE_30	WATER MANAGEMENT OF ROTTAI TANK SCHEME IN POTTUVIL IRRIGATION DIVISION <i>YKMRC Yapapatune, DA Ekanayake, PDS Senevirathne I, Eng.S.Tharshika</i>	
09.15 – 09.30 hrs	ICSBE_78	UNRAVELING CLIMATOLOGICAL TRENDS: 40-YEAR ANALYSIS OF LONG-TERM PARAMETERS IN KIGALI, RWANDA <i>N.R. Josiah, D.P.C. Laknath</i>	
09.30 – 09.45 hrs	ICSBE_344	EFFECT OF IRRIGATION RESERVOIRS ON STREAMFLOW SIMULATION IN DRY ZONE, SRI LANKA <i>Buddhi Suraweera, Kasun De Silva</i>	
09.45- 10.00 hrs	ICSBE_268	AI-BASED MACHINE LEARNING ALGORITHMS FOR WATER QUALITY ANALYSIS: A REVIEW <i>R.M.L.S Rajapaksha, R.P.W.N Karunasiri, T.A.N.T Perera, Kosala Sirisena</i>	
10.00 – 10.15 hrs	ICSBE_349	BIODEGRADABILITY INDEX (BDI) AS AN INDICATOR FOR EFFLUENTS QUALITY MEASUREMENT; A CASE STUDY BASED ON DIFFERENT INDUSTRY SECTORS IN MATARA DISTRICT, SRI LANKA	

17th December 2023

Room 4 (Online)/ Session 02

Geotechnical Engineering Session

Join Zoom Meeting	https://zoom.us/j/98561175011?pwd=L0JpdVhtay9Dbk40VFMxd3JkZIN6Zz09		
	Meeting ID: 985 6117 5011 Passcode : 979488		
Session chair 1	Dr. M. C. M. Nasvi	Session Coordinator 1	Mr. Anjana Indunil
Session chair 1	Dr. Rasika Athapaththu	Session Coordinator 2	Mr. J A R Kavinda
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_13	INVESTIGATION OF GEOTECHNICAL PROPERTIES OF EXPANSIVE SOIL STABILIZED WITH FLY ASH AND QUARRY DUST <i>T.B.C.H. Dissanayake, D. de S. Udakara</i>	
11.45 - 12.00 hrs	ICSBE_44	STABILITY ANALYSIS OF ROAD EMBANKMENT CONSTRUCTED BY TREATING MARGINAL SOILS WITH GEOPOLYMER BASED STABILIZERS <i>Tharshsany, S. Shagiththiya, M.C.M Nasvi , J. Sangeetha</i>	
12.00 - 12.15 hrs	ICSBE_112	PREDICTION OF COLLAPSE POTENTIAL OF SOILS USING ARTIFICIAL NEURAL NETWORK <i>A.K.B.J. Aththanagoda, L.C. Kurukulasuriya</i>	
12.15 - 12.30 hrs	ICSBE_127	COMPARISON OF IN-SITU STATE OF A TAILINGS DEPOSIT WITH RECONSTITUTED LABORATORY SPECIMEN STATES <i>PGN Nayanthara, C Gallage, SSSD Biyanvilage, J Rajapakse, T Rowles, E Tuplin</i>	
12.30 - 12.45 hrs	ICSBE_346	REVIEW OF RELIABILITY EVALUATION OF CROSS-HOLE SONIC LOGGING FOR BORED PILE INTEGRITY <i>Y.A. Naotunna, N.H. Priyankara, D.M.K.N. Seneviratna</i>	
12.45 - 13.00 hrs	ICSBE_19	ANALYSIS OF THE SHEAR BEHAVIOR OF STABILIZED SOIL-CONCRETE INTERFACE IN GEOTECHNICAL STRUCTURES <i>W.A.W. Wijesingha, K.H.S.M. Sampath</i>	
13.00 - 13.15 hrs	ICSBE_06	THE DRIEST END OF THE SOIL WATER CHARACTERISTICS CURVE (SWCC) WAS DEVELOPED FOR DIFFERENT SOIL DEPTHS USING WP4C <i>K.K.A, Shanika, Y.N.S. Wijewardana, H.M.S.K, Herath, L.W. Galagedara</i>	
13.15 - 13.30 hrs	ICSBE_321	INVESTIGATION OF FOUNDATION PROTECTION MORTAR LAYER WITH ABILITY TO WITHSTAND THE BEHAVIOR OF FINE GRAIN SOIL <i>J.A.S.M Jayasinghe, U.B.S Fernando</i>	

17th December 2023

Room 4 (Online)/ Session 03

Sustainable Solutions Session

Join Zoom Meeting	https://zoom.us/j/98561175011?pwd=L0JpdVhtay9Dbk40VFMxd3JkZlN6Zz09		
	Meeting ID: 985 6117 5011 Passcode : 979488		
Session chair 1	Prof. Senani Wijayawardhana	Session Coordinator 1	Mr. Anjana Indunil
Session chair 1	Dr. Udayagee Kumaeasinghe	Session Coordinator 2	Mr. J A R Kavinda
Time	Paper ID	Title	
14.15 - 14.30 hrs	ICSBE_322	SPATIAL DISTRIBUTION OF METEOROLOGICAL DROUGHTS IN THE MADURU OYA BASIN IN THE DRY ZONE OF SRI LANKA: IMPLICATIONS OF CLIMATE CHANGE <i>W.M.R.T.Y. Wijekoon, R.L.H.L. Rajapakse</i>	
14.30 - 14.45 hrs	ICSBE_196	CHANGE DETECTION FROM 2017-2022 OF MANGROVE AREA AROUND THAMPALAGAM BAY AND ESTIMATION OF CARBON DIOXIDE ABSORPTION OF MANGROVES IN A SELECTED AREA USING GIS AND REMOTE SENSING TECHNIQUES <i>Jeyapalu Jathushan, and V.P.A. Weerasinghe</i>	
14.45 - 15.00 hrs	ICSBE_149	THROUGH THE SHADOWS: AN IN-DEPTH STUDY OF INFORMAL WASTE COLLECTORS' PLIGHT AMIDST COVID-19 IN SRI LANKA N. Fernando, Y.M.M De Silva	
15.00 - 15.15 hrs	ICSBE_359	STRENGTHENING TSUNAMI PREPAREDNESS IN SRI LANKA: AN ASSESSMENT OF THE ACTION PLAN OF TSUNAMI READY RECOGNITION PROGRAMME <i>K.K.C.L. Kannangara, C.S.A. Siriwardana, C. Liyanarachchige</i>	
15.15 - 15.30 hrs	ICSBE_41	A REVIEW: DEVELOPMENT TECHNIQUES FOR MUNICIPAL OPEN DUMPSITE IN DEVELOPING COUNTRIES <i>K.G.S. Rukshan and Y.N.S. Wijewardana</i>	
15.30 – 15.45 hrs	ICSBE_261	LONG SHORT-TERM MEMORY (LSTM) & FEEDFORWARD ARTIFICIAL NEURAL NETWORK (ANN) FOR FLOOD PREDICTION <i>G.W.T.I. Madhushanka, M.T.R. Jayasinghe, R.A. Rajapakse</i>	

17th December 2023

Room 5 (Physical)/ Session 01

Geotechnical Engineering Session

Session chair 1	Dr. Chandana Kurukulasuriya	Session Coordinator 1	Mr. Kumudu Prabodya
Session chair 1	Dr. Nawarathnarajah	Session Coordinator 2	Mr. H A S Malshan
Time	Paper ID	Title	
09.00 - 09.15 hrs	ICSBE_42	ASSESSMENT OF SHEAR STRENGTH PROPERTIES OF DREDGED SAND <i>P.L. Punchihewa, R.J.K.B.C. Ranathunga, A.M.R.G. Athapaththu</i>	
09.15 - 09.30 hrs	ICSBE_130	USE OF FIELD MONITORING DATA AND THE FINITE ELEMENT ANALYSIS IN THE OPTIMIZATION OF DEEP EXCAVATION SUPPORT SYSTEMS: A CASE STUDY <i>V.S.S.D. Silva, and L.I.N. de Silva</i>	
09.30 - 09.45 hrs	ICSBE_16	STRENGTH, SWELL AND COST BASED MIX OPTIMIZATION OF CEMENT AND FLY ASH TREATED EXPANSIVE SOILS <i>A.M.S.N. Abeyasinghe, L.C. Kurukulasuriya, M.C.M. Nasvi</i>	
09.45 - 10.00 hrs	ICSBE_360	REVIEW OF LOAD SHARING MECHANISM OF PILED-RAFT FOUNDATION <i>D.A.P.Prasad, and N.H.Priyankara</i>	
10.00 -10.15 hrs	ICSBE_255	EFFECT OF GRID UNDER SLEEPER PAD ON SHEAR RESISTANCE AT SLEEPER-BALLAST INTERFACE <i>H. G. S. Mayuranga, S. K. Navaratnarajah, C. S. Bandara and J. A. S. C. Jayasinghe</i>	

17th December 2023

Room 5 (Physical)/ Session 02

Sustainable Solutions Session

Session chair 1	Dr. Rohan Dassanayake	Session Coordinator 1	Mr. Kumudu Prabodya
Session chair 1	Dr. C. S. Kalpage	Session Coordinator 2	Mr. H A S Malshan
Time	Paper ID	Title	
11.30 - 11.45 hrs	ICSBE_80	OPTIMIZATION AND SCALE-UP OF PREPARING BATTERY-GRADE GRAPHITE FROM SRI LANKAN VEIN GRAPHITE FOR RECHARGEABLE LITHIUM-ION BATTERIES <i>H.M.H.D.K. Naranpanawa, T.H.N.G. Amaraweera, N.W.B. Balasooriya, K.W.S.N. Kumari, H.W.M.A.C. Wijayasinghe</i>	
11.45 - 12.00 hrs	ICSBE_89	ELECTROCHEMICAL PERFORMANCE OF CuO ANODE MATERIAL SYNTHESIZED BY CHEMICAL PRECIPITATION METHOD FOR RECHARGABLE LITHIUM-ION BATTERIES <i>W. T. R. S. Fernando, T. H. N. G. Amaraweera, H. W. M. A. C. Wijayasinghe</i>	
12.00 - 12.15 hrs	ICSBE_146	BIO CHAR DERIVED FROM WASTE BIOMASS SOURCES AS A FILLER FOR NATURAL RUBBER: A REVIEW <i>M.G.D. Sanduranga, R.D.H. Iresha, and C.S. Kalpage</i>	
12.15 - 12.30 hrs	ICSBE_274	DEVELOPMENT OF UV PROTECTIVE COATINGS TO RETAIN THE COLOR OF GARMENTS USING INORGANIC UV ABSORBERS <i>D.P.Lokuwithana, and L.Palliyaguru</i>	
12.30 - 12.45 hrs	ICSBE_252	DETERMINING THE PRECISE PHYSICAL PROPERTIES OF RUBBER AGGREGATE DERIVED FROM DISCARDED TIRES <i>B.G.V. Sanjaya, J.M.R.S. Appuhamy, W.M.K.R.T.W. Bandara, S. Venkatesan, R.J. Gravina</i>	
12.45 - 13.00 hrs	ICSBE_357	EXPLORING PERCEPTIONS OF SERVICE DELIVERY IN A LOCAL MUNICIPALITY IN SOUTH AFRICA <i>E.S. Ngcobo, C. Gerwel Proches , N. Singh</i>	

17th December 2023

Room 6 (Hybrid)/ Session 01

Circular Economy Session

Join Zoom Meeting

<https://zoom.us/j/97241148173?pwd=WGpPY2dXRlZ4RURJWFVhRW5rUWIBQT09>

Meeting ID: 972 4114 8173 Passcode: 123782

Session chair 1

Dr. Ajith De Silva

Session Coordinator 1

Ms. Sajani Kolambage

Session chair 1

Dr. Mayuri Wijayasundara

Session Coordinator 2

Ms. Vishmi Gunathunga

Time

Description

Facilitator

Title

09.00 – 09.20 hrs

Key Lecture 01

Dr. Ajith De Alwis

Net Zero and circularity -
Actioning with Accountability

09.20 – 09.40 hrs

Key Lecture 02

Dr. Mayuri Wijayasundara

Net Zero and circularity - Role
of circular economy
in decarbonization

Time

Paper ID

Title

09.40 – 09.55 hrs

ICSBE_09

EXPLORING CIRCULAR ECONOMY OPPORTUNITIES IN
THE BUILT ENVIRONMENT: INSIGHTS FROM CASE
STUDY ANALYSIS
*Olivia Ho, Usha Iyer-Raniga, Kamani Sylva,
Mahanama Dissanayaka*

09.55 – 10.10 hrs

ICSBE_22

SUSTAINABLE CONSTRUCTION OF TRANSPORT
CONNECTIVITY AND ASSET MANAGEMENT PROJECT, SRI
LANKA
W.M.S.N. Weerasekara, K.K.K. Sylva, S.M. Dissanayaka

10.10 – 10.25 hrs

ICSBE_62

GHG EMISSIONLESS OPEN DUMPSITE: A CIRCULAR
ECONOMY APPROACH
*S. Himanujahn, W.A.K.S. Fonseka, D.H.P. Kaushalya, M.B.T.D. De
Silva, R.A.K.K. Perera, M. Vithanage, B.C.L. Athapattu*

10.25 – 10.40 hrs

ICSBE_278

PRIORITIZING GREEN HUMAN RESOURCE MANAGEMENT
PRACTICES TOWARDS ACHIEVING ORGANIZATIONAL
SUSTAINABILITY FROM EXPERTS' PERSPECTIVES: A
CONCEPTUAL PAPER
Mafruha Hossain, and Mohammad Thoufiqul Islam

10.40 – 10.55 hrs

ICSBE_47

A STUDY ON ADAPTATIONS OF CIRCULAR ECONOMIC
CONCEPTS IN CONSTRUCTION INDUSTRY OF SRI LANKA
J.M.D.S.D. Jayamanna, S.N.C.M Dias, T.D. Denagama

17th December 2023

Room 6 (Hybrid)/ Session 02

Circular Economy Session

Join Zoom Meeting	https://zoom.us/j/97241148173?pwd=WGpPY2dXRlZ4RURJWFVhRW5rUWIBQT09		
	Meeting ID: 972 4114 8173 Passcode : 123782		
Session chair 1	Dr. Ajith De Silva	Session Coordinator 1	
Session chair 1	Dr. Mayuri Wijayasundara	Session Coordinator 2	
Time	Paper ID	Title	
11.45 - 12.00 hrs	ICSBE_18	RESOURCE MANAGEMENT IN IRRIGATION PROJECTS OF SRI LANKA USING PRINCIPLES OF CIRCULAR ECONOMY <i>K.A.G.G.K. Kumarasinghe, and K. K. K. Sylva</i>	
12.00- 12.15 hrs	<i>ICSBE_136</i>	<i>APPLICATION OF CIRCULAR ECONOMIC CONCEPTS AT CONSTRUCTION WASTE MANAGEMENT (COWAM) PROJECT, DADALLA, SRI LANKA</i> <i>B M M I Balasooriya and, K K K Sylva</i>	
12.15- 12.30 hrs	ICSBE_266	MANAGEMENT OF E-WASTE IN URBAN SRI LANKAN HOUSEHOLDS <i>A. S. M. Musharraf, G. P. Jayasiri</i>	
12.30 - 12.45 hrs	ICSBE_138	TRANSITIONS TO PAPERLESS GOVERNMENT OFFICES: AN ANALYSIS OF CHALLENGES AND RECOMMENDATIONS FOR SUPPORTING THE GREEN ECONOMY <i>Tilak De Silva</i>	

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