

# DETAILED SESSION PLAN

Friday, 09 July 2021

## Session 1A

**Theme** Energy Efficiency in the Built Environment  
**Session Chair** Associate Professor Thayaparan Gajendran  
**Time** 05.30 pm – 07.00 pm

<b>Time</b>	<b>Paper ID, Title and Author(s)</b>
05.30 pm – 05.45 pm	<b>T13011: The obstacles to energy saving in residential buildings in Nigeria: Stakeholders' perspectives</b> <i>Aisha Tilde Ibrahim and Nirodha Gayani Fernando</i>
05.45 pm – 06.00 pm	<b>S13055: Energy retrofits for improving energy efficiency in buildings: A review of HVAC and lighting systems</b> <i>M.R. Amjath, H. Chandanie and S.D.I.A. Amarasinghe</i>
06.00 pm – 06.15 pm	<b>S13064: Analysing the gap between predicted and actual operational energy consumption in buildings: A review</b> <i>M. Rajithan, D. Soorige and S.D.I.A. Amarasinghe</i>
06.15 pm – 06.30 pm	<b>S13070: Operational energy saving in buildings: A comparison of green vs conventional wall</b> <i>U.G.D. Madushika, T. Ramachandra and N. Zainudeen</i>
06.30 pm – 06.45 pm	<b>T13050: Enhancing the integration of smart features in commercial buildings to conserve energy: A framework</b> <i>R.A.A. Dilogini, P. Sridarran and G. Mahedrarajah</i>
06.45 pm – 07.00 pm	<b>Q&amp;A</b>

Session Coordinator: Mr. Sasanka Gallage

**Friday, 09 July 2021**

**Session 1B**

**Theme** Project Governance and Procurement

**Session Chair** Dr. Thanuja Ramachandra

**Time** 05.30 pm – 07.00 pm

**Time** **Paper ID, Title and Author(s)**

05.30 pm – 05.45 pm **S13019: Dispute avoidance from the perspective of procurement methods: A conceptual focus**

*P.A.N.B. Senarath and Mathusha Francis*

05.45 pm – 06.00 pm **S13015: Problems and related causes of public procurement process to achieve sustainability in developing countries**

*K.A.P. Gunawardana, Y.G. Sandanayake, G.I. Karunasena and T.S. Jayawickrama*

06.00 pm – 06.15 pm **S13063: Identification of significant risk factors of Guaranteed Maximum Price (GMP) contracts**

*A.D. Palihakkara and B.A.K.S. Perera*

06.15 pm – 06.30 pm **T13065: The choice of project governance modes to minimise contractors' opportunistic behaviour**

*B.P. Arsecularatne and Y.G. Sandanayake*

06.30 pm – 06.45 pm **S13016: COVID-19 and informal labour in construction: A narrative analysis of webinar discussions**

*Chandana Jayalath and K.K.G.P Somarathna*

06.45 pm – 07.00 pm **Q&A**

*Session Coordinator: Ms. Shanika Vidanagamage*

# Friday, 09 July 2021

## Session 1C

**Theme** ICT Applications in Construction

**Session Chair** Ch. QS. Suranga Jayasena

**Time** 05.30 pm – 07.00 pm

**Time** **Paper ID, Title and Author(s)**

05.30 pm – 05.45 pm **T13025: Potential of Internet of Things (IOT) in the construction industry**

*S. Dilakshan, A.P. Rathnasinghe and L.D. Indunil P Seneviratne*

05.45 pm – 06.00 pm **S13012: Applicability of blockchain technology to manage financial issues in the Sri Lankan construction industry**

*Himal Kosala, Mathusha Francis and Diani Sirimewan*

06.00 pm – 06.15 pm **S13013: Analysis of feasibility of blockchain technology for international trade related to Sri Lankan construction industry**

*H.D. Weerakoon and H. Chandanie*

06.15 pm – 06.30 pm **S13021: Leaders of tomorrow: Status and outlook of BIM implementation among young quantity surveyors in Nigeria**

*Samuel A. Adekunle, Clinton O. Aigbavboa and Obuks A. Ejohwomu*

06.30 pm – 06.45 pm **S13006: Drivers of adoption of machine learning applications in the construction industry**

*Matthew Ikuabe, Ayodeji Oke, Clinton Aigbavboa, Douglas Aghimien, Wellington Thwala and Joseph Balogun*

06.45 pm – 07.00 pm **Q&A**

*Session Coordinator: Ms. Kalindu Mendis*

# Saturday, 10 July 2021

## Session 2A

**Theme** **Enhancing Value and Sustainability in Construction**

**Session Chair** Ch. QS. Vijitha Disaratne

**Time** 09.00 am – 10.30 am

**Time** **Paper ID, Title and Author(s)**

09.00 am – 09.15 am **S13069: Optimising value during construction schedule acceleration**

*W.P.M. Silva, Sachie Gunatilake and M.F.F. Fasna*

09.15 am – 09.30 am **S13080: Enhancing value engineering application in the Sri Lankan building construction industry: A framework**

*A.V.P.U. Sandupama, T. Ramachandra and U.G.D. Madushika*

09.30 am – 09.45 am **S13020: Assuring sustainable construction at project feasibility stage in Sri Lanka**

*G.P.D.P. Senanayake and H. Chandanie*

09.45 am – 10.00 am **S13072: Significant financial and economic risk factors in coastal land reclamation projects**

*H.A.H.P. Perera, B.A.K.S. Perera and Archchana Shandraseharan*

10.00 am – 10.30 am **Q&A**

*Session Coordinator: Mr. Sasanka Gallage*

# Saturday, 10 July 2021

## **Session 2B**

**Theme** Environmentally and Socially Sustainable Infrastructure

**Session Chair** Dr. Menaha Thayaparan

**Time** 09.00 am – 10.30 am

**Time** **Paper ID, Title and Author(s)**

09.00 am – 09.15 am **S13078: Effect of social and environmental factors on expressway construction in Sri Lanka**

*H.L.P.U. Karunathilaka, K.A.K. Devapriya and V.G. Shanika*

09.15 am – 09.30 am **S13027: Challenges and issues of environmental protection instruments related to infrastructure development projects in Sri Lanka**

*B.V.M.K. Wijerathna and M.D.T.E. Abeynayake*

09.30 am – 09.45 am **S13075: Assessing the carbon emission reduction by grid-tied photovoltaic (PV) technology for buildings in Sri Lanka**

*L.H. Ganegodage, K.G.A.S. Waidyasekara, and Harshini Mallawaarachchi*

09.45 am – 10.00 am **S13007: Initiating Industrial Symbiosis (IS) networks in Sri Lanka: Insights from global projects**

*Harshini Mallawaarachchi, Gayani Karunasena, Y.G. Sandanayake and Chunlu Liu*

10.00 am – 10.30 am **Q&A**

*Session Coordinator: Ms. Shanika Vidanagamage*

# Saturday, 10 July 2021

## Session 2C

<b>Theme</b>	<b>Climate Change Adaptation and Disaster Resilience</b>
<b>Session Chair</b>	Ch. QS. Indunil Seneviratne
<b>Time</b>	09.00 am – 10.30 am

<b>Time</b>	<b>Paper ID, Title and Author(s)</b>
09.00 am – 09.15 am	<b>S13082: Towards long-term sustainable performance of post-disaster housing reconstruction: Second life for temporary housing</b> <i>Akila Rathnasinghe, Diani Sirimewan, Archchana Shandraseharan, Niraj Thurairajah, Menaha Thayaparan and K.G.A.S. Waidyasekara</i>
09.15 am – 09.30 am	<b>S13005: Development of a framework for flood mitigation in Fiji</b> <i>Mingyuan Guo, Argaw Gurmu and Linda Tivendale</i>
09.30 am – 09.45 am	<b>S13049: Climate change challenges facing Sri Lanka: A literature review</b> <i>S.P.M. Dasandara, U. Kulatunga, M.J.B. Ingirige and T. Fernando</i>
09.45 am – 10.00 am	<b>S13056: Impact of spatial planning for the cost and value optimization in built environment against natural hazards</b> <i>J.A.C.D. Jayalath, P.A.P.V.D.S. Disaratna and K.T. Withanage</i>
10.00 am – 10.30 am	<b>Q&amp;A</b>

Session Coordinator: Ms. Kalindu Mendis

# Saturday, 10 July 2021

## Session 3A

<b>Theme</b>	<b>Cost and Scope Management in Construction</b>
<b>Session Chair</b>	Prof. Kanchana Perera
<b>Time</b>	11.00 am – 12.30 pm

<b>Time</b>	<b>Paper ID, Title and Author(s)</b>
11.00 am – 11.15 am	<b>T13052: Suitability of ICTAD formula and CIDA price indices to calculate the amount of price escalated in construction projects</b> <i>J.A.B. Janardana, A. Samaraweera and H.S. Jayasena</i>
11.15 am – 11.30 am	<b>S13076: Accuracy of traditional contingency estimation in the construction industry</b> <i>Nishan Jeyanathan, Archchana Shandraseharan and Udayangani Kulatunga</i>
11.30 am – 11.45 am	<b>S13018: Key performance indicators in upholding scope creep management in road projects</b> <i>Chandana Jayalath and K.K.G.P Somarathna</i>
11.45 am – 12.00 noon	<b>S13083: Life cycle costing in construction: Current trends and emerging directions</b> <i>Anupa Manewa, Mohan Siriwardena and Christaline Wijekoon</i>
12.00 noon – 12.15 pm	<b>S13030: Barriers in practicing life cycle costing techniques experienced by Sri Lankan quantity surveyors</b> <i>I.P. Tharindu Sandaruwan, H. Chandanie and J.A.B. Janardana</i>
12.15 pm – 12.30 pm	<b>Q&amp;A</b>

Session Coordinator: Mr. Sasanka Gallage

# Saturday, 10 July 2021

## Session 3B

**Theme** Stakeholder Engagement and Management

**Session Chair** Dr. Sepani Senaratne

**Time** 11.00 am – 12.30 pm

**Time** **Paper ID, Title and Author(s)**

11.00 am – 11.15 am **S13087: A framework to measure collaboration in a construction project**

*Deepjyoti Nath, Varun Kumar Reja, and Koshy Varghese*

11.15 am – 11.30 am **S13047: Comparison of skills between Sri Lankan and foreign construction labour**

*Kesavan Manoharan, Pujitha Dissanayake, Chintha Pathirana, Dharsana Deegahawature and Renuka Silva*

11.30 am – 11.45 am **T13066: Lean design management practices associated with stakeholder management during pre-construction stage in Sri Lanka**

*P.W.A.H. Lawanga and Y.G. Sandanayake*

11.45 am – 12.00 noon **S13051: A model for human capacity building of large-scale contractors to foster lean construction in Sri Lanka**

*N.M.G. Helamini Sandagomika and Y.G. Sandanayake*

12.00 noon – 12.15 pm **S13062: Dynamic supply chain capability analysis of Hong Kong-Zhuhai-Macao bridge construction: A topic modeling approach**

*E.M.A.C Ekanayake, Geoffrey Qiping Shen, Mohan M. Kumaraswamy and Jin Xue*

12.15 pm – 12.30 pm **Q&A**

*Session Coordinator: Ms. Shanika Vidanagamage*



# Saturday, 10 July 2021

## Session 3C

**Theme** Operation and Maintenance of Built Environment for Sustainability

**Session Chair** Dr. H. Chandanie

**Time** 11.00 am – 12.30 pm

**Time** **Paper ID, Title and Author(s)**

11.00 am – 11.15 am **S13077: Customer loyalty towards sustainable hotels: Case studies in Sri Lanka**  
*Lakeesha Silva, Piumi Dissanayake, Binashi Kumarasiri and Dumindu Soorige*

11.15 am – 11.30 am **S13059: Applicability of LEED requirements to achieve water efficiency in Sri Lankan hotel industry**  
*A.G.U. Damsari, P. Sridarran and F.N. Abdeen*

11.30 am – 11.45 am **S13008: Hydrofluorocarbon (HFC) management framework for low carbon industrial facilities: Milk processing industry in Sri Lanka**  
*R.W.I.S. Karunathilaka, Harshini Mallawarachchi and R.M.D.I.M. Rathnayake*

11.45 am – 12.00 noon **S13057: A model to assess the maintenance leanness of apparel industry buildings in Sri Lanka**  
*P.A.L.P. Perera and Nayanthara De Silva*

12.00 noon – 12.15 pm **S13014: Use of augmented reality for efficient building maintenance in Sri Lanka**  
*M.R.N Rajapaksha, P. Sridarran and R.M.D.I.M Rathnayake*

12.15 pm – 12.30 pm **Q&A**

*Session Coordinator: Ms. Kalindu Mendis*

# Saturday, 10 July 2021

## Session 4A

**Theme** **Waste Management and Circular Economy**

**Session Chair** Prof. Udayangani Kulatunga

**Time** 01.30 pm – 02.45 pm

**Time** **Paper ID, Title and Author(s)**

01.30 pm – 01.45 pm **T13001: Managing concrete wastes by implementing contemporary construction practices in Sri Lanka**

*D.R. Senarathna and B.L.S.H. Perera*

01.45 pm – 02.00 pm **S13023: Promoting stakeholder collaboration in adopting circular economy principles for sustainable construction**

*Sepani Senaratne, K.C. Abhishek, Srinath Perera and Laura Almeida*

02.00 pm – 02.15 pm **S13079: Waste heat generation and potential recovery systems used in Sri Lankan hotels**

*N. Lakshan, T. Ramachandra and U.G.D. Madushika*

02.15 pm – 02.45 pm **Q&A**

*Session Coordinator: Mr. Sasanka Gallage*

# Saturday, 10 July 2021

## **Session 4B**

<b>Theme</b>	<b>Occupational Health and Safety in Built Environment</b>
<b>Session Chair</b>	Dr. Nayanthara De Silva
<b>Time</b>	01.30 pm – 02.45 pm

<b>Time</b>	<b>Paper ID, Title and Author(s)</b>
01.30 pm – 01.45 pm	<b>S13024: Ensuring health and safety in petroleum built environment: The case of Sri Lanka</b> <i>T.M.A.S. Thennakoon, Harshini Mallawaarachchi, R.M.D.I.M. Rathnayake and Lalith De Silva</i>
01.45 pm – 02.00 pm	<b>S13010: A new safety climate assessment tool for Gulf construction</b> <i>Tariq Umar and Nnedinma Umeokafor</i>
02.00 pm – 02.15 pm	<b>S13048: Psychosocial hazards and risks in the construction industry in New South Wales, Australia</b> <i>Negar Rezaeian, Liyaning Tang and Mary Hardie</i>
02.15 pm – 02.45 pm	<b>Q&amp;A</b>

*Session Coordinator: Ms. Shanika Vidanagamage*

# Saturday, 10 July 2021

## Session 4C

<b>Theme</b>	<b>Sustainable Construction Methods and Process Improvement</b>
<b>Session Chair</b>	Prof. Lalith De Silva
<b>Time</b>	01.30 pm – 02.45 pm

<b>Time</b>	<b>Paper ID, Title and Author(s)</b>
01.30 pm – 01.45 pm	<b>S13054: Comparison between the terms constructability and buildability: A systematic literature review</b> <i>P.L.I. Wimalaratne, U. Kulathunga and T. Gajendran</i>
01.45 pm – 02.00 pm	<b>S13067: Applicability of polymer building materials for productivity enhancement and cost reduction in Sri Lankan building industry</b>  <i>S.D. Wijeratne, K.A.K. Devapriya and S.D. Gallage</i>
02.00 pm – 02.15 pm	<b>S13068: Barriers in implementing sustainable piling construction practices in Sri Lanka</b>  <i>H.P.S.G.S. Kumara, N. Zainudeen, T.A.D.K. Jayasanka and K.G.A.S. Waidyasekara</i>
02.15 pm – 02.45 pm	<b>Q&amp;A</b>

*Session Coordinator: Ms. Kalindu Mendis*