

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

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

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 <i>W.P.M. Silva, Sachie Gunatilake and M.F.F. Fasna</i> |
| 09.15 am – 09.30 am | S13080: Enhancing value engineering application in the Sri Lankan building construction industry: A framework <i>A.V.P.U. Sandupama, T. Ramachandra and U.G.D. Madushika</i> |
| 09.30 am – 09.45 am | S13020: Assuring sustainable construction at project feasibility stage in Sri Lanka <i>G.P.D.P. Senanayake and H. Chandanie</i> |
| 09.45 am – 10.00 am | S13072: Significant financial and economic risk factors in coastal land reclamation projects <i>H.A.H.P. Perera, B.A.K.S. Perera and Archchana Shandraseharan</i> |
| 10.00 am – 10.30 am | Q&A |

Session Coordinator: Mr. Sasanka Gallage

Saturday, 10 July 2021

Session 2C

Theme Climate Change Adaptation and Disaster Resilience

Session Chair Ch. QS. Indunil Seneviratne

Time 09.00 am – 10.30 am

Time Paper ID, Title and Author(s)

09.00 am – 09.15 am **S13082: Towards long-term sustainable performance of post-disaster housing reconstruction: Second life for temporary housing**

Akila Rathnasinghe, Diani Sirimewan, Archchana Shandraseharan, Niraj Thurairajah, Menaha Thayaparan and K.G.A.S. Waidyasekara

09.15 am – 09.30 am **S13005: Development of a framework for flood mitigation in Fiji**

Mingyuan Guo, Argaw Gurmud and Linda Tivendale

09.30 am – 09.45 am **S13049: Climate change challenges facing Sri Lanka: A literature review**

S.P.M. Dasandara, U. Kulatunga, M.J.B. Ingirige and T. Fernando

09.45 am – 10.00 am **S13056: Impact of spatial planning for the cost and value optimization in built environment against natural hazards**

J.A.C.D. Jayalath, P.A.P.V.D.S. Disaratna and K.T. Withanage

10.00 am – 10.30 am **Q&A**

Session Coordinator: Ms. Kalindu Mendis

Saturday, 10 July 2021

Session 3A

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

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

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 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

Theme Occupational Health and Safety in Built Environment

Session Chair Dr. Nayanthara De Silva

Time 01.30 pm – 02.45 pm

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

01.30 pm – 01.45 pm **S13024: Ensuring health and safety in petroleum built environment: The case of Sri Lanka**

T.M.A.S. Thennakoon, Harshini Mallawaarachchi, R.M.D.I.M. Rathnayake and Lalith De Silva

01.45 pm – 02.00 pm **S13010: A new safety climate assessment tool for Gulf construction**

Tariq Umar and Nnedinma Umeokafor

02.00 pm – 02.15 pm **S13048: Psychosocial hazards and risks in the construction industry in New South Wales, Australia**

Negar Rezaeian, Liyaning Tang and Mary Hardie

02.15 pm – 02.45 pm **Q&A**

Session Coordinator: Ms. Shanika Vidanagamage

Saturday, 10 July 2021

Session 4C

Theme Sustainable Construction Methods and Process Improvement

Session Chair Prof. Lalith De Silva

Time 01.30 pm – 02.45 pm

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

01.30 pm – 01.45 pm **S13054: Comparison between the terms constructability and buildability: A systematic literature review**

P.L.I. Wimalaratne, U. Kulathunga and T. Gajendran

01.45 pm – 02.00 pm **S13067: Applicability of polymer building materials for productivity enhancement and cost reduction in Sri Lankan building industry**

S.D. Wijeratne, K.A.K. Devapriya and S.D. Gallage

02.00 pm – 02.15 pm **S13068: Barriers in implementing sustainable piling construction practices in Sri Lanka**

H.P.S.G.S. Kumara, N. Zainudeen, T.A.D.K. Jayasanka and K.G.A.S. Waidyasekara

02.15 pm – 02.45 pm **Q&A**

Session Coordinator: Ms. Kalindu Mendis