

The 13th World Construction Symposium - 2025

Sustainable Futures: Shaping a Regenerative Built Environment for Future Generations



S Y M P O S I U M

PROCEEDINGS



15th - 16th August
2025



COLOMBO
SRI LANKA

Organized by



CEYLON INSTITUTE OF BUILDERS
(CIOB) SRI LANKA



DEPARTMENT OF BUILDING ECONOMICS
UNIVERSITY OF MORATUWA

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FOR WOMEN, PUNE

PROCEEDINGS

of

THE 13TH WORLD CONSTRUCTION SYMPOSIUM
2025

ON

**SUSTAINABLE FUTURES: SHAPING A
REGENERATIVE BUILT ENVIRONMENT
FOR FUTURE GENERATIONS**

15-16 August 2025

EDITORS

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The Ceylon Institute of Builders (CIOB), Sri Lanka



Established in 1961, the Ceylon Institute of Builders (CIOB) is the premier institute for Building Professionals in Sri Lanka with a strong network of Engineers, Architects, Surveyors and similar allied professions who work to inspire, encourage, educate and train students, builders, and professionals in the country. The institute welcomes young entrants and mature professionals with or without a background in construction to achieve professional level careers in the country. They are provided with a well-structured development programme that eventually leading to gaining corporate membership of the institute.

<http://www.ciob.lk/>

Department of Building Economics University of Moratuwa, Sri Lanka



The Department of Building Economics, University of Moratuwa, Sri Lanka was founded in 1983. It is currently the pioneer Sri Lankan institution to offer programmes in Quantity Surveying, Facilities Management, Project Management, Construction Law and Dispute Resolution and Occupational Safety and Health Management. Building Economics and Management Research Unit (BEMRU) is the research arm of the Department of Building Economics, which specialises in research in Building Economics and Management in the country as well as internationally.

<https://uom.lk/becon>

ASSOCIATE PARTNERS

Centre for Smart Modern Construction, Western Sydney University, Australia



Western Sydney University is a world-class university with a growing international reach and reputation for academic excellence and impact-driven research. It is ranked amongst the top three percent of universities in the world, globally focused, research-led and committed to making a positive impact – at a regional, national and international level. It was established as a modern university in 1989 from its predecessors dating back to 1891. The WSU currently has over 40,000 students in a sprawling series of campuses across the Western Sydney region.

<https://www.westernsydney.edu.au/>

The University of Newcastle, Australia



The University of Newcastle, Australia, established in 1965, is a leading public university with campuses across Newcastle, the Central Coast, Port Macquarie, and Sydney. Offering a wide range of undergraduate, postgraduate, and research programs spanning diverse disciplines such as Arts, Business, Engineering, Health Sciences, and Environmental Studies, the university is committed to academic excellence, research innovation, and community engagement, preparing students for successful careers and meaningful contributions to society. With a strong emphasis on interdisciplinary collaboration and industry partnerships, the University of Newcastle ensures students gain practical experience and skills relevant to today's workforce.

<https://www.newcastle.edu.au/>

Built Environment Project and Asset Management (BEPAM)

Journal, Published by Emerald Group Publishing



BEPAM provides, a unique one-stop forum that publishes peer-reviewed research and innovative developments in both project management and asset / facilities management of building and civil engineering infrastructure. The journal also targets important interface issues between the planning, design and construction activities on the one hand, and the management of the resulting built assets / facilities on the other. Launched in 2011, BEPAM is well established internationally, e.g., being encouraged by CIB, recognised by the Australian Business Deans Council and indexed in SCOPUS, EBSCO, INSPEC and the Emerging Sources Citation Index (ESCI) of Thomas Reuters.

<http://www.emeraldinsight.com/bepam.htm>

ASSOCIATE PARTNERS

Colombo School of Construction Technology (CSCT), Sri Lanka



Colombo School of
Construction Technology

The CSCT was established in 2008, with the motto ‘Sapientia et Doctrina’, which is Latin for Wisdom and Learning. It strives to create a learning environment to nurture the development of critical thinking skills; support innovation; and develop knowledge and expertise of our students. CSCT faculty have expertise in a broad range of specialties and have developed curriculums in each of the programs that meet the needs of the construction industry.

<https://csct.edu.lk/>

Deakin University, Australia



Deakin University is a public university in Australia, with multiple campuses across Victoria and New South Wales. It was founded in 1974 and is named after Alfred Deakin, Australia’s second Prime Minister. Deakin University offers undergraduate, postgraduate, and research courses across a wide range of disciplines, including Arts, Business and Law, Education, Engineering, Health, Information Technology, Science, and Sport.

<https://www.deakin.edu.au/>

Massey University, New Zealand



SCHOOL
OF BUILT
ENVIRONMENT

Massey University is a reputable institution of higher learning located in New Zealand that prides itself on academic leadership, research excellence, and innovative teaching grounded in real-world issues. The university offers a range of academic programs and services to support the academic and personal development of its students. The university offers postgraduate degrees that you can complete fully online and is the leading university in New Zealand for online and borderless education.

<https://www.massey.ac.nz/>

The University of Adelaide, Australia



The University of Adelaide is a well-regarded institution of higher learning and innovation located in Adelaide, Australia. It is a member of the prestigious Group of Eight, which consists of Australia’s top research-intensive universities. The University of Adelaide has consistently received high ratings from respected international assessments, which is a testament to its commitment to academic excellence. It offers a range of undergraduate and graduate degree programs and has a strong emphasis on research. Students can choose from a variety of areas of study, including accounting and finance, agriculture, food and wine, allied health, animal and veterinary sciences, architecture, arts, biomedical science and biotechnology, and business. The university prides itself on being a future-maker for its state, nation, and the world. It has a strong commitment to creating meaningful change through contemporary educational and research excellence. The institution aims to meet the evolving needs of its local and global communities while applying proven values that celebrate its proud history.

<https://www.adelaide.edu.au/>

ASSOCIATE PARTNERS

Indian Institute of Technology Madras (IIT Madras), India



Indian Institute of Technology Madras is one among the foremost institutes of national importance in higher technological education, basic and applied research. The institute has sixteen academic departments and a few advanced research centres in various disciplines of engineering and pure sciences, with nearly 100 laboratories organized in unique pattern of functioning.

<http://www.iitm.ac.in>

Dr. Bhanuben Nanavati College of Architecture, India



Dr. Bhanuben Nanavati College of Architecture for Women (BNCA), located in Karve Nagar, Pune, is a premier institute affiliated with Savitribai Phule Pune University and part of the Maharshi Karve Stree Shikshan Sanstha. It offers undergraduate and postgraduate programs in architecture exclusively for women. The campus features advanced facilities, including India's first Fab-Lab in Digital Architecture with 3D printing, CNC machines, and robotic arms. BNCA also provides a well-stocked digital library, paperless LMS, modern studios, and fully equipped workshops. Hostel accommodation is available for over 1,200 students, with amenities like a gym, dining halls, and solar water heating. As a United Nations Academic Impact (UNAI) Hub, BNCA promotes global collaborations and holistic education, nurturing future-ready architects.

<https://bnca.ac.in/>

ACKNOWLEDGEMENT

We extend our sincere appreciation to the Ceylon Institute of Builders (CIOB) for inviting the Building Economics and Management Research Unit (BEMRU) of the Department of Building Economics, University of Moratuwa, to jointly organise the 13th World Construction Symposium (WCS) under the theme “*Sustainable Futures: Shaping a Regenerative Built Environment for Future Generations.*” This symposium marks the 13th milestone in the WCS series, which commenced in 2012 and has since been continued through the generous contributions and support of numerous individuals and organisations.

We gratefully acknowledge our Associate Partners: Western Sydney University, Australia; The University of Newcastle, Australia; Built Environment Project and Asset Management (BEPAM) Journal, published by Emerald Group Publishing; Colombo School of Construction Technology (CSCT), Sri Lanka; Deakin University, Australia; Massey University, New Zealand; The University of Adelaide, Australia; Indian Institute of Technology Madras (IIT Madras), India; and Dr. Bhanuben Nanavati College of Architecture, India.

We are especially thankful to all the authors who chose the 13th WCS as a platform to disseminate their research. Our heartfelt gratitude is also extended to the international and local scientific committee members for their rigorous reviews and constructive feedback, which ensured the high standard of accepted papers. We would like to further extend our gratitude to the chief guest, keynote speakers, panellists, session chairs, session coordinators, paper presenters, and other invitees, whose commitment and active participation greatly enriched the symposium. Their support enabled us to maintain the momentum of the annual WCS series, leading to its successful 13th iteration this year.

We also express our appreciation to the Editor-in-Chief of BEPAM and the team at Emerald Group Publishing for their collaboration, as well as to our sponsors, whose generous contributions made this year’s event possible. Our gratitude is further extended to government and other institutions and all other supporting partners who provided assistance in various forms to make this symposium a success.

A special note of thanks goes to the panellists and moderators of the panel discussion on the theme “*2030 Step Ahead: Strategic Foresight for the Sri Lankan Construction Industry.*” The session brought together distinguished academics and industry leaders to discuss on sustainability-related challenges facing the Sri Lankan construction sector. The discussion emphasised the importance of strengthening collaboration between academia and industry, with key insights distilled into ten thematic summary areas that will guide the focus of the next World Construction Symposium.

Finally, we extend our heartfelt appreciation to our colleagues in the Organising Committee, the Symposium Secretariat, and the Department of Building Economics for their dedication and tireless efforts in ensuring the success of the 13th World Construction Symposium 2025.

Editors

The 13th World Construction Symposium
Colombo, Sri Lanka
August 2025

PREFACE

The 13th World Construction Symposium (WCS 2025), jointly organised by the Ceylon Institute of Builders (CIOB) and the Building Economics and Management Research Unit (BEMRU) of the Department of Building Economics, University of Moratuwa, was held on the 15th and 16th of August 2025. The symposium was organised in partnership with the Western Sydney University, Australia; The University of Newcastle, Australia; Built Environment Project and Asset Management (BEPAM) Journal, published by Emerald Group Publishing; Colombo School of Construction Technology (CSCT), Sri Lanka; Deakin University, Australia; Massey University, New Zealand; The University of Adelaide, Australia; Indian Institute of Technology Madras (IIT Madras), India; and Dr. Bhanuben Nanavati College of Architecture, India.

This year marks the 13th milestone in the WCS series, which has been held annually since its inception in 2012. Through its past iterations, the symposium has grown steadily, earning recognition among academics and industry professionals, both local and foreign, as a multi-stakeholder platform to share research, practical insights, and experiences within the built environment and construction domain. This year's symposium was convened under the theme *"Sustainable Futures: Shaping a Regenerative Built Environment for Future Generations,"* envisioning a path towards sustainability and resilience for the industry.

The symposium attracted over 120 full paper submissions, each undergoing a rigorous peer-review process as outlined below:

- All submitted full papers were reviewed by at least two independent reviewers from the symposium scientific committee through a double-blind process. Reviewers evaluated papers based on originality, significance, reliability, presentation quality, and relevance to the symposium's scope. Final decisions on acceptance or rejection were made by the Scientific Committee Co-chairs, who also serve as editors of the proceedings.
- At least one of the authors of all the accepted papers were required to register and orally present the paper in the symposium.

Following this process, 108 papers were accepted for publication. Notably, authors of the selected papers represented countries including Australia, India, Indonesia, Sri Lanka, South Africa, the United Kingdom, and the UAE. Collectively, the papers address a broad spectrum of topics across ten subthemes: sustainable construction methods and processes for future generations; sustainable, resilient, and regenerative buildings; products and materials for a circular and sustainable future; socio-economic and cultural dimensions of built environment sustainability; innovation and smart technologies for sustainable futures; decision-support systems and assessment frameworks for a sustainable built environment; retrofitting and reuse of buildings for sustainable futures; solutions for modernizing and refurbishing existing buildings and adaptive reuse of buildings; awareness, education, training, and policy interventions for sustainable futures; and Artificial Intelligence (AI) for a sustainable built environment.

As Scientific Committee Co-chairs, we are committed to upholding the highest standards of publication ethics and scholarly quality. Accordingly, the emphasis was placed on the rigour and relevance of accepted papers rather than their quantity. The proceedings presented here reflect the dedicated efforts of authors, reviewers, the organising committee, associate partners, and sponsors. It is our sincere hope that this body of work will contribute to advancing knowledge and inspire further dialogue as we collectively strive towards shaping a regenerative built environment for future generations.

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University of Moratuwa, Sri Lanka

SYMPOSIUM INFORMATION

IMPORTANT: To ensure the proper execution of WCS 2025 hybrid symposium, please pay special attention to the instructions below. If you have any questions or difficulties following the guidelines, please contact the WCS 2025 Secretariat (info@ciobwcs.com) who will be happy to help.

• How will WCS 2025 Hybrid Symposium Work?

The conference is delivered physically at Sir Lanka Foundation Institute, Colombo and virtually over a professional platform, Zoom, and is managed by a competent and experienced technical team.

All virtual paper presentations must be pre-recorded to improve the quality of the delivery, avoid going over time and avoid any technical issue. However, speakers **should be virtually present for their entire session** in order to answer questions and participate in the discussion.

The virtual conference is similar to any in-person conference. Presentations are assembled in parallel sessions according to themes. Participants can access the session of their choice by entering the WCS 2025 main meeting using the meeting ID and passcode and then selecting the breakout room for the parallel session of their choice. All registered attendees can attend all parallel sessions and switch from session to session at will.

The symposium inauguration, panel discussion and the sum-up are held in the WCS 2025 main meeting room.

As with in-person conferences, there will also be a dedicated period for questions and discussion after the presentations. Participants are able to use the chat or verbally ask questions during the Q&A session. The session chairperson may select a few questions, depending on the time allocated for the discussion, and read them to the presenter, who can answer verbally.

All sessions are fully recorded. Please note that we automatically assume that presenters accept their recorded presentation to be made available to participants for post-conference streaming. In case of refusal, presenters need to notify us at info@ciobwcs.com before 14 August 2025 and the secretariat will manage the requests.

• Preparing for your Virtual Session - Instructions for Virtual Presenters:

Follow the instructions below when presenting your paper at WCS 2025 virtual symposium.

Before the symposium starts:

- Make sure that you have uploaded your pre-recorded presentation following the given instructions and have completed the registration process.
- Refer the Symposium Programme and the Session Plan to find your presentation in the symposium programme as scheduled.
- Make sure to install Zoom on your computer and update it to the latest version (version 5.3.0 or higher).
- In preparation for the meeting, you can join a test meeting via

<https://support.zoom.us/hc/en-us/articles/115002262083-Joining-a-test-meeting>. For the best experience, please use your webcam and test your audio.

- Test your internet speed, we recommend an Internet connection download speed of at least 1.5Mbps. You can test your download speed [here](#).
- A microphone is recommended as well as a quiet place cut off from ambient noise for better interactions.

Before your session starts:

- Please make sure to join your assigned virtual session **10 minutes prior to the session start time** in case there are any issues that need to be worked out. Each session is conducted in a breakout room within the main Zoom meeting.
- When entering the session, make sure to identify yourself with your **name as it appears on your paper** to help the technical staff and the session chair to find you easily.
- Test your audio and video as you join; Mute your microphone when not speaking; Position your webcam at eye level and make eye contact as much as possible.

During the session:

- As with a physical meeting, each session will proceed in the order identified and maintain the schedule.
- Each parallel session comprises of the paper presentations (via playback of pre-recorded presentations) and a subsequent Q&A session.
- **Speakers should be virtually present for their entire session** in order to answer questions and participate in the discussion.
- A session chair is assigned to each session to introduce the presenters, facilitate and oversee time, and the Q&A period. A session coordinator is also assigned to each parallel session to manage the order of the presentations, initiate playback of the pre-recorded presentations and ensure smooth transitions between presentations.
- Pre-recorded presentations are managed by the session coordinator according to the established schedule (see Session Plan).
- A common Q&A session will follow the presentations in each session. The session chair will lead the Q&A period and time allotted.
- Please ensure that your **webcam is on during the Q&A session** so that attendees can view you.
- The participants may submit their questions verbally (You can use the **Raise your hand** tool to inform the session chair if you want to raise a question verbally) or via **Chat**. The session chair will choose the most relevant ones to read for presenters to answer during the Q&A period.
- The **Chat** tool can also be used by session chair and session coordinator to privately contact the presenters if needed. If you need technical assistance, you can inform the session coordinator using this tool.

- **To Access WCS 2025 Hybrid Symposium**

To access the symposium virtually:

Join the 13th World Construction Symposium

<https://us05web.zoom.us/j/86918470014?pwd=OySQC8AVtfr3GmQXVRqVFalccEXaEi.1>

Meeting ID: 869 1847 0014

Passcode: wcs2025

- Make sure to install Zoom on your computer or update it to the latest version (version 5.3.0 or higher).
- Use the Meeting ID and passcode provided by the Symposium Secretariat to log on to the Main Meeting Room of the symposium. (The symposium inauguration, panel discussion and the sum-up are held in the WCS2023 main meeting room).
- Parallel paper presentation sessions are held in breakout rooms within the main meeting room. Once, the breakout rooms are open, you will be able to select and enter a breakout room of your choice. All registered attendees can attend all parallel sessions and switch from session to session at will. [Note: Participants not joined with the desktop or mobile app (version 5.3.0 or higher) may not be able to self-select a breakout room and will need to be assigned by the Host].
- To join the parallel session of your choice:
 - Click **Breakout Rooms**  in your meeting controls.
This will display the list of open breakout rooms (i.e. parallel sessions) created by the host.
 - Hover your pointer over the number to the right of breakout room you wish to join, click **Join**, then confirm by clicking Join.
 - Repeat as necessary to join other breakout rooms.
 - You can leave the breakout room and return to the main meeting room at any time, or you can leave the meeting entirely from the breakout room.
 - To leave the breakout room click **Leave Breakout Room** and choose if you want to leave the breakout room or the entire meeting (if you want to switch to a different parallel session, make sure to use the ‘Leave Room’ option to re-enter the main meeting room and join a different parallel session).
 - When the host ends the breakout rooms, you will be notified and given the option to return to the main room immediately, or in 60 seconds.

- **Virtual Background for Zoom**

- You can use an optional virtual background with your university/company logo to hide or standardise your backstage during your parallel session and/or symposium group photo (refer Symposium Agenda).
- We recommend that you do a test beforehand to see which background works better for you, depending on your environment.
- Please click [here](#) for instructions on enabling virtual backgrounds on Zoom.

- **Some other Useful Links**

If you need more information on how to use Zoom:

[How to join a Zoom meeting](#)

[How to configure your audio and video Participating in breakout rooms](#)

- **Language**

The official language of the symposium is English. There will be no simultaneous translations.

- **Dress Code**

For the symposium: business, lounge or national attire

For the fellowship and awards night: formal attire

- **Awards**

- CIOB Best Paper Award
- CIOB - Highly Commended Paper Award
- BEPAM Best Paper award – with a certificate and a prize of free access to Emerald Insight for a period of 90 days and 40 free downloads for the author(s) of this Best paper
- Two (02) BEPAM Highly Commended Paper awards – with a certificate for the author(s) of each Highly Commended Paper

- **Certificate of Attendance**

- A certificate of attendance will be issued to all authors, after the respective parallel sessions. The authors who participated the symposium virtually will receive the e-certificates in due course.

Disclaimer

Whilst every attempt be made to ensure that all aspects of the symposium mentioned in this announcement will take place as scheduled, the Organising Committee reserves the prerogative to make last minute changes should the need arise without prior notice.

MESSAGE FROM THE SYMPOSIUM CHAIRPERSON

Prof. Chitra Weddikkara

Chairperson

The 13th World Construction Symposium 2025



It is my honour and privilege to welcome you to the 13th World Construction Symposium, a flagship event in Sri Lanka's academic and professional calendar. Over the past thirteen years, this symposium has evolved into a leading platform that unites scholars, practitioners, and industry leaders to exchange ideas, share innovations, and explore pathways to address the challenges and opportunities in the construction sector. Organized under the patronage of the Ceylon Institute of Builders (CIOB) and the Building Economics and Management Research Unit (BEMRU) of the Department of Building Economics, University of Moratuwa, it serves as a unique forum for reflection, engagement, and collaboration.

This year's theme, "*Sustainable Futures: Shaping a Regenerative Built Environment for Future Generations*," highlights the crucial role of the construction industry in steering global efforts towards sustainability. Our responsibility extends beyond meeting immediate infrastructural needs. It is about shaping a regenerative future that ensures resilience, inclusivity, and prosperity for generations to come.

I extend my sincere appreciation to our sponsors, partners, and the organising committee, whose commitment and dedication have been instrumental in making this event a success. Their efforts ensure that the symposium continues to foster meaningful conversations that inspire actionable outcomes.

As we embark on this year's sessions, let us seize the opportunity to exchange knowledge, challenge conventional thinking, and co-create solutions that will shape a more sustainable and regenerative built environment. Thank you for joining us at the 13th World Construction Symposium and I look forward to the stimulating discussions and fruitful collaborations to follow.

MESSAGE FROM THE PRESIDENT, CIOB

Dr. Rohan Karunaratne

President

The Ceylon Institute of Builders (CIOB)



I take great pleasure in welcoming you to the 13th World Construction Symposium (WCS) 2025 on the theme “*Sustainable Futures: Shaping a regenerative Built Environment for future generations*” to be held on the 15th and 16th August 2025 in Colombo. CIOB’s WCS is an exciting annual venture organized jointly with the Building Economics and Management Research Unit (BEMRU) of the Department of Building Economics of the University of Moratuwa, Sri Lanka.

The purpose and vision of this symposium is the promotion of academic and research activities in the field of Sustainable Construction. The Symposium will bring all like-minded individuals on a single platform to discuss new trends and challenges in the field of Sustainable Construction. During its proceedings, Sri Lankan academics, research scholars and practitioners will get the opportunity to interact with renowned experts from overseas on sustainable construction and new trends in global built environment.

The CIOB is honoured to have a distinguished team of academics and researchers to serve on the scientific committee, providing comprehensive reviews to the submissions. The extensive technical programme developed by the scientific committee, includes five concurrent sessions/presentation tracks. The event gives an opportunity for the professionals in the construction industry to achieve targets on their Continued Professional Development.

I wish the symposium to be a great success with your continued participation and the commitment of the University of Moratuwa and the generous support of all from the Sri Lankan Construction Industry.

MESSAGE FROM THE HON. SECRETARY, CIOB

Eng. Saliya Kaluarachchi

**Hon. Secretary
The Ceylon Institute of Builders (CIOB)**



I am pleased to welcome all the delegates to the 13th World Construction Symposium, 2025 held during the period 15th and 16th August 2025 in Colombo. It is with great pleasure I apprise you that our institute, the Ceylon Institute of Builders has been able to host the World Construction Symposium annually since 2012. The Symposium has become a popular event for both the academics and professionals in the Construction industry in Sri Lanka. I am sure that this Symposium will live up to their expectations and enable the participants to gain knowledge from the presentations and the discussion during its two-day proceedings.

The Building Economics and Management Research Unit (BEMRU) of the Department of Building Economics of the University of Moratuwa, Sri Lanka is the joint organizer of this Symposium along with the CIOB. I would like to express gratitude to them for their firm commitment and backing in making this a continued reality. I am also thankful to the Associate Partners of the Symposium which include leading academic and research institutions from a number of countries.

As in the previous years, this year also the Symposium has been greatly supported by the Construction industry stakeholders and professional institutions in organizing the event. I wish to record my special thanks to all of our Sponsors and well-wishers for their generous contribution to make this symposium a success.

My best wishes to all those who have joined this year's conference for gaining and spreading knowledge on sustainable built environment for sustainable futures.

MESSAGE FROM THE SYMPOSIUM CO-CHAIRPERSONS

Eng. Sagara Gunawardena

Dr. Kalana Alwis

Mr. Ranji Hewage



Co-Chairpersons

Organizing Committee

The 13th World Construction Symposium

We are pleased to welcome all distinguished delegates to the 13th World Construction Symposium 2025 (WCS 2025) to be held during 15th and 16th August 2025 in Colombo. This annual symposium has been jointly organized by the Ceylon Institute of Builders (CIOB) and the Department of Building Economics of the University of Moratuwa since the year 2012. The theme for this year's symposium is "*Sustainable Futures: Shaping a Regenerative Built Environment for Future Generations*" which is timely in the context of the growing need to keep in line with the global trends and the sustainable goals in the construction industry.

During the past decade, the CIOB has taken a number of initiatives with the University of Moratuwa through this highly acknowledged event to play a leading role in the sustainable development process for the construction industry both in Sri Lanka and globally. This has further strengthened integrated multidisciplinary teams to develop a number of appropriate technologies in the field of research and development.

Recognition of such outstanding research achievements among the researchers is a great motivating factor. Achievements by academic and professional bodies together are also a great encouragement for the industry and for further research.

We congratulate and appreciate the collective work done by all those stakeholders for the Construction Industry over the years and recognize the achievement of the Scopus indexed accomplishment as a significant achievement for the WCS by the University of Moratuwa.

We wish the WCS 2025 every success in its proceedings.

MESSAGE FROM HEAD, DEPARTMENT OF BUILDING ECONOMICS, UNIVERSITY OF MORATUWA

Prof. Anuradha Waidyasekara

**Head of the Department
Department of Building Economics
University of Moratuwa**



I extend my warmest wishes for the 13th World Construction Symposium 2025. This international event is jointly organized by the Building Economics and Management Research Unit (BEMRU) of the Department of Building Economics, University of Moratuwa, Sri Lanka and the Ceylon Institute of Builders (CIOB). The symposium brings together several esteemed national and international partners, including Western Sydney University, Australia; The University of Newcastle, Australia; Deakin University, Australia; Massey University, New Zealand; the University of Adelaide, Australia; Indian Institute of Technology Madras (IIT Madras), India; Dr. Bhanuben Nanavati College of Architecture, India; Built Environment Project and Asset Management (BEPAM) Journal, published by Emerald Group Publishing; Colombo School of Construction Technology (CSCT), Sri Lanka.

The global construction industries are transforming with sustainable futures, navigating through economic pressures, resource constraints, climate change, and trade wars. The 13th World Construction Symposium is themed "*Sustainable Futures: Shaping a Regenerative Built Environment for Future Generations*", reflecting its forward-looking and action-oriented approach.

This year's symposium provides an excellent platform for local and international delegates to share knowledge, exchange experiences, and present sustainable solutions and research findings that address contemporary challenges in the construction industry. I encourage all participants to make the most of this opportunity to engage in meaningful discussions, build networks, and contribute to the collective advancement of our industry.

I wish the 13th World Construction Symposium 2025 every success and look forward to its continued contribution towards shaping a sustainable and innovative construction future.

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SYMPOSIUM PROGRAMME

FRIDAY, 15 AUGUST 2025 – DAY ONE	
08.30 am	Symposium Registration
09.00 am	Symposium Inauguration
09.10 am - 09.20 am	Welcome address by President, CIOB Dr. Rohan Karunaratne
09.20 am - 09.30 am	Address by Conference Chairperson Prof. Chitra Weddikkara
09.30 am - 09.40 am	Address by Deputy Vice Chancellor Prof. D. P. Chandrasekara
09.40 am - 10.00 am	Address by the Chief Guest Prof. Malik Ranasinghe
10.00 am - 10.30am	Keynote Address 1 <i>“Building Resilient Communities: Lessons from the UK Flood and Coastal Resilience Innovation Programme (FCRIP)”</i> Prof. David Proverbs
10.30 am- 10.35 am	Sponsors Video
10.35 am- 10.55 am	Refreshments
10.55 am – 11.10 am	Address by Editor-in-Chief, Journal of Built Environment Project and Asset Management (BEPAM) Prof. Mohan Kumaraswamy
11.10 am – 11.40 am	Keynote Address 2 <i>“Sustainability and Circularity through Digitalisation”</i> Prof. Srinath Perera
11.40 am – 11. 50 am	Sponsors Video
11.50 am – 12.00 noon	Vote of Thanks by Hony. Secretary, CIOB Eng. Saliya Kaluarachchi
12.00 noon - 01.00 pm	Lunch Break
0 1.00 pm - 03.00 pm	Parallel Sessions 1
03.00 pm - 03.30 pm	Refreshments
03.30 pm - 05.30 pm	Parallel Sessions 2
05.30 pm	End of Day 1

SATURDAY, 16 AUGUST 2025 – DAY TWO	
08.00 am	Symposium Registration
08.30 am - 10.00 am	Parallel Sessions 3
10.00 am - 10.30 am	Refreshments
10.30 am - 12.00 noon	Parallel Sessions 4
12.00 noon - 01.30 pm	Lunch Break
01.30 pm - 03.15 pm	Panel Discussion on: “2030 Step Ahead: Strategic Foresight for the Sri Lankan Construction Industry” Panel Members: Prof. David Proverbs Prof. Srinath Perera Prof. Chitra Weddikkara Dr. Rohan Karunaratne Dr. Kalana Alwis Panel Moderator: Ch.QS. Lalith Ratnayake Thematic Summary Contributor: Dr. Suranga Jayasena
03.15 pm - 03.25 pm	Announcing the Award Winners Prof. Mohan Kumaraswamy Prof. Anuradha Waidyasekara
03.25 pm - 03.35 pm	Vote of Thanks by Scientific Committee Co-Chairperson Dr. Indrani Wimalaratne
03.35 pm - 04.00 pm	Refreshments
04.00 pm	End of Programme
06.30 pm Onwards	Awards Ceremony & Symposium Dinner at Hilton Colombo

SYMPOSIUM SESSION PLAN AT-A-GLANCE

Friday, 15 th August 2025 – Day One					
08.30 am	Symposium Registration				
09.00 am - 12.00 noon	Symposium Inauguration				
12.00 noon - 01.00 pm	Lunch Break				
01.00 pm - 03.00 pm	Session 1A	Session 1B	Session 1C	Session 1D	Session 1E
	S17045	S17011	S17048	S17033	S17032
	S17052	S17129	S17068	S17034	S17056
	S17062	S17130	S17092	S17054	S17063
	S17074	S17131	S17105	S17110	S17100
	S17075	S17134	S17109	T17122	S17104
	T17125	Q&A	S17115	Q&A	S17107
	Q&A		Q&A		Q&A
03.00 pm - 03.30 pm	Break				
03.30 pm - 05.30 pm	Session 2A	Session 2B	Session 2C	Session 2D	Session 2E
	S17025	S17006	S17058	S17013	S17037
	S17072	S17007	S17023	S17039	S17042
	S17088	S17085	S17031	S17061	S17049
	S17097	S17090	S17043	S17098	S17071
	S17108	S17103	S17050	S17111	S17073
	S17132	Q&A	S17059	S17126	S17079
	Q&A		Q&A	Q&A	Q&A
05.30 pm	End of Day 1				
08.00 am	Symposium Registration				
Saturday, 16 th August 2025 – Day Two					
08.30 am - 10.00 am	Session 3A	Session 3B	Session 3C	Session 3D	Session 3E
	S17080	S17004	S17001	S17028	S17027
	S17081	S17087	S17005	S17044	S17021
	S17089	S17113	T17008	S17095	S17076
	S17101	T17118	S17036	S17117	S17124
	S17102	S17135	S17128	S17136	S17047
	Q&A	Q&A	Q&A	Q&A	Q&A
10.00 am - 10.30 am	Break				
10.30 am - 12.00 noon	Session 4A	Session 4B	Session 4C	Session 4D	Session 4E
	S17012	S17010	S17009	S17041	S17026
	S17077	S17064	S17051	S17070	S17065
	S17086	S17067	S17055	S17091	S17066
	S17099	S17116	S17057	S17119	S17093
	S17120	S17123	S17096	S17121	T17106
	S17019	Q&A	Q&A	Q&A	Q&A
	Q&A				
12.00 noon - 01.30 pm	Lunch Break				
01.30 pm - 03.15 pm	Panel Discussion				
03.15 pm – 03.35 pm	Symposium Sum-Up				
03.35 pm - 04.00 pm	Break				
04.00 pm	End of Programme				
06.30 pm onwards	Fellowship and Awards Night at Hilton, Colombo				

DETAILED SESSION PLAN

FRIDAY, 15 AUGUST 2025

SESSION 1A

Theme	Carbon Assessment in the Built Environment
Session Chair	A/Prof. Sepani Senaratne
Venue/Time	Room A - 01.00 PM - 03.00 PM
Virtual	Breakout Room - Session A

Time	Paper ID, Title and Author(s)
01.00 PM - 01.15 PM	S17045: Global Research Trends in Carbon Capture and Utilization Technologies for Cement Production: A Bibliometric Analysis <i>H.H.A.P Hemantha, R.A.B.U.N. Perera, D.N.L.S. Uduwage</i>
01.15 PM - 01.30 PM	S17052: Embodied Carbon Variability in Indian High-Rise Residential Buildings: A Case-Based Assessment <i>K.G. Akshatha, Sivakumar Palaniappan, M.K. Pradeep Kumar Rao</i>
01.30 PM - 01.45 PM	S17062: Carbon Financing in Construction: Review of Benefits and Barriers <i>D.S.I. Wijayawardena, K.A.T.O. Ranadewa</i>
01.45 PM - 02.00 PM	S17074: Learning from Nature: Biomimicry-Inspired Building Design for Carbon Reduction in Urban Living <i>R.V.A.D. Rahubadda, Udayangani Kulatunga, A.P. Rathnasinghe</i>
02.00 PM - 02.15 PM	S17075: Project Data Responsibilities for Carbon Assessment in Sri Lankan Construction Industry <i>R.M.T.D. Rajapaksha, S.D. Gallage</i>
02.15 PM - 02.30 PM	T17125: The Applicability of Carbon Emission Estimation with BIM Environment: Sri Lankan Context <i>D.A.M.V. Perera, C. Allis, B.K.C. Perera, A. Lokuge</i>
02.30 PM - 03.00 PM	Q&A

Session Coordinator: Ch. QS Dilshan Akalanka

FRIDAY, 15 AUGUST 2025

SESSION 1B (Hybrid)

Theme	Circular Economy Integration in Construction
Session Chair	Dr. Gayani Karunasena
Venue/Time	Room B - 01.00 PM - 03.00 PM
Virtual	Breakout Room - Session B

Time	Paper ID, Title and Author(s)
01.00 PM - 01.15 PM	S17011: Buildings Designed for Systemic Circularity: A Comprehensive Review of Methodological Taxonomies <i>Prince Antwi-Afari, Daniel Oteng, S. Thomas Ng, Frank Ato Ghansah, Zhikang Bao</i>
01.15 PM - 01.30 PM	S17129: Exploring Circular Building Material: Transforming Industrial and Agricultural Waste into 3D Printable Construction Material <i>T. Takale, V. Anagal</i>
01.30 PM - 01.45 PM	S17130: Mapping Circularity Parameters: A Literature Review of Policy Planning in the Built Environment <i>R. Deshmukh, A. Garud, V. Anagal, S. Karve, M. Siriwardena, A. Manewa</i>
01.45 PM - 02.00 PM	S17131: Investigating Business Models for Circular Economy Integration in Construction Sector <i>S. Shah, A. Garud, V. Anagal, S. Karve, M. Siriwardena, A. Manewa</i>
02.00 PM - 02.15 PM	S17134: From Policy Presence to Enforceability: Evaluating Water Circularity in the Indian Construction Frameworks <i>N. Sakhardande, S. Karve, V. Anagal, A. Garud, A. Manewa, M. Siriwardena</i>
02.15 PM - 02.45 PM	Q&A

Session Coordinator: Mr. Lakshitha Bandaranayake

FRIDAY, 15 AUGUST 2025

SESSION 1C

Theme	Enabling Digital Transformation in Sri Lankan Construction
Session Chair	Ch. QS Indunil Senevirathne
Venue/Time	Room C - 01.00 PM - 03.00 PM
Virtual	Breakout Room - Session C

Time	Paper ID, Title and Author(s)
01.00 PM - 01.15 PM	S17048: Addressing Data Management Challenges in Sri Lankan Construction Industry through Blockchain Integration <i>W.M.N.D. Wijesundara, M. Thayaparan, M.D.D. Costa</i>
01.15 PM - 01.30 PM	S17068: Exploring The Potential of Blockchain Technology Adoption in the Sri Lankan Construction Industry: Opportunities and Barriers to Implementation <i>D.W.J.W. Bandara, P.L.I. Wimalaratne, Udayangani Kulathunga, A. Wijayasiri</i>
01.30 PM - 01.45 PM	S17092: Integrating BIM into Business Models of Consultancy Firms: Barriers and Enablers <i>R.L. Samaraweera, D.N. Abeynayake, S. Sivanraj</i>
01.45 PM - 02.00 PM	S17105: Barriers to Adopting Digital Twin Technology for Contract Administration in Sri Lankan Construction Sector <i>M.K.L.I.C. Fernando, V. Lingasabeshan, P.L.I. Wimalaratne</i>
02.00 PM - 02.15 PM	S17109: Applicability of Artificial Intelligence Models for Selection of ADR Methods to the Settlement of Contractor-Related Variation Disputes in Building Construction Projects in Sri Lanka <i>Y.M.W.H.M.R.R.L.J.B. Kiridana, M.D.T.E. Abenayake</i>
02.15 PM - 02.30 PM	S17115: Barriers and Solutions to Adopting Digital Twin in Sri Lankan Construction <i>H.T.T.A. Indunil, R.P.H.S. Bandara, P.H.Y. Buddhini</i>
02.30 PM - 03.00 PM	Q&A

Session Coordinator: Ms. Dasuni Kodithuwakku

FRIDAY, 15 AUGUST 2025

SESSION 1D

Theme	Technology-Driven Innovations for Safety and Productivity in Construction
Session Chair	Prof. Nayanthara De Silva
Venue/Time	Room D - 01.00 PM - 03.00 PM
Virtual	Breakout Room - Session D

Time	Paper ID, Title and Author(s)
01.00 PM - 01.15 PM	S17033: Detection of Mobile Phone Use by Labourers on Construction Sites using YOLOv11-s <i>D.N.L.S. Uduwage, S. Sivanraj, K.G.A.S. Waidyasekara, R.K. Shiwakoti, M.Tripathi</i>
01.15 PM - 01.30 PM	S17034: Comparison of Yolo Algorithms for PPE Compliance Monitoring at Construction Sites <i>S. Sivanraj, D.N.L.S. Uduwage, M. Tripathi</i>
01.30 PM - 01.45 PM	S17054: Examining Health and Safety Management among Foreign Contractors in Sri Lanka: Gaps, Barriers, and Improvement Strategies <i>B.G. Wijayarathna, C. Allis, Y.K. Delpachitra</i>
01.45 PM - 02.00 PM	S17110: Enhancing Labour Productivity in the Sri Lankan Construction Industry through Computer Vision <i>E.M.K.K. Ekanayaka, B.A.I. Eranga</i>
02.00 PM - 02.15 PM	T17122: IOT-Based Real-Time Monitoring Systems to Enhance Workers' Safety in High-Rise Construction Projects in Sri Lanka <i>S.S. Jayasundara, B.A.I. Eranga</i>
02.15 PM - 02.45 PM	Q&A

Session Coordinator: Ms. Piumi Tennakoon

FRIDAY, 15 AUGUST 2025

SESSION 1E

Theme	Lean Integration for Sustainable Construction
Session Chair	Dr. Mohan Siriwardena
Venue/Time	Room E - 01.00 PM - 03.00 PM
Virtual	Breakout Room - Session E

Time	Paper ID, Title and Author(s)
01.00 PM - 01.15 PM	S17032: BIM Implementation by Integrating Lean Construction and IDT (LCIDT) <i>Rhijul Sood, Nandini Sharma, Boeing Laishram</i>
01.15 PM - 01.30 PM	S17056: Client Satisfaction Model for Lean Implemented Construction SMEs: A Review <i>K.G.P.N. Munasingha, K.A.T.O. Ranadewa, M.R.D.P. Wijerathna</i>
01.30 PM - 01.45 PM	S17063: Lean Thinking for Green Building: Barriers for Lean Integrated Sustainable Construction <i>S.J.L. Madhushani, K.A.T.O. Ranadewa, L.D.I.P. Seneviratne</i>
01.45 PM - 02.00 PM	S17100: Lean Integrated Business Model for Construction - A Systematic Review on Current Practices and Future Directions <i>P.W.A.H. Lawanga, Y.G. Sandanayake, K.A.T.O. Ranadewa</i>
02.00 PM - 02.15 PM	S17104: Lean Integrated Circular Economy in the Sri Lankan Construction Industry: A Qualitative Delphi Study <i>Hariis Vijayakumar, K.A.T.O. Ranadewa, Panchali Weerakoon, Agana Parameswaran, J.K.D.D.T. Jayanetti</i>
02.15 PM - 02.30 PM	S17107: Integration of Lean Kaizen Model to Enhance Material Efficiency in Construction Projects: A Literature Review <i>Sathursiya Selasteen, B.A.K.S. Perera, Anuki S. Kavirathna</i>
02.30 PM - 03.00 PM	Q&A

Session Coordinator: Ms. Dewmini Wijerathne

FRIDAY, 15 AUGUST 2025

SESSION 2A

Theme	Advancing Circular Economy Practices and Policy in the Built Environment
Session Chair	Dr. Dilani Abeynayake
Venue/Time	Room A - 03.30 PM - 05.30 PM
Virtual	Breakout Room - Session A

Time	Paper ID, Title and Author(s)
03.30 PM - 03.45 PM	S17025: Private Sector Role as a Key Stakeholder Towards the Circular Economy in the Construction Industry in Sri Lanka <i>N.V.J. Chathurya, K.A.N. Gunarathna, Kavini Guruge</i>
03.45 PM - 04.00 PM	S17072: Moving from Linear to Circular Apparel Economy in Sri Lanka: PRISMA-Based Analysis of Circular Economy and Supply Chain Interactions <i>C.H. Kumara, Harshini Mallawaarachchi, J.A.D.K.S. Jayakodi</i>
04.00 PM - 04.15 PM	S17088: Competencies of Construction Professionals to Perform Circular Economy Practices: A Systematic Review <i>D.S.I. Wijayawardena, Iresha Gamage, Sepani Senaratne, B.A.K.S. Perera</i>
04.15 PM - 04.30 PM	S17097: A Review on Circular Economy and its Synergy with Industrial Symbiosis <i>Angel Lokuge, Gihan Anuradha Tennakoon, Udayangani Kulatunga</i>
04.30 PM - 04.45 PM	S17108: Comparison of Legislation of UK and Sri Lanka for Better Implementation of Circular Economy in Sri Lankan Construction Industry <i>M.D.T.E. Abeynayake, B.A.K.S. Perera</i>
04.45 PM – 05.00 PM	S17132: Review of Circularity Assessment Tools in the Built Environment <i>S. Shende, V. Anagal, A. Manewa, S. Karve, A. Garud, M. Siriwardena</i>
05.00 PM - 05.30 PM	Q&A

Session Coordinator: Ms. Nimaya Perera

FRIDAY, 15 AUGUST 2025

SESSION 2B (Hybrid)

Theme	Digital Transformation and Technology Adoption in Construction
Session Chair	Dr. Navodana Rodrigo
Venue/Time	Room B - 03.30 PM - 05.15 PM
Virtual	Breakout Room - Session B

Time	Paper ID, Title and Author(s)
03.30 PM - 03.45 PM	S17006: Assessing Organisational Readiness for Digital Transformation: Key Attributes for Indigenous South African Construction Firms <i>Mayowa Adedapo Ogungbe, Matthew Ikuabe, Clinton Ohis Aigbavboa</i>
03.45 PM - 04.00 PM	S17007: Defining Green Building Criteria for Building Information Modeling-Based Rating Systems <i>Mustika Sari, Mohammed Ali Berawi, Rahmadi Surya, Gunawan Saroji, Nunik Madyaningarum, Siti Rahma Utami, Rafly Muzady</i>
04.00 PM - 04.15 PM	S17085: Towards a Computerised Maintenance Management System for Healthcare Facilities in South Africa <i>Matthew Ikuabe, Clinton Aigbavboa, Bankole Awuzie, Mayowa Ogungbe</i>
04.15 PM - 04.30 PM	S17090: Barriers to Adoption of Automation in Indian Construction Projects <i>Mohammed Akberuddin Adnan, Santhosh Loganathan</i>
04.30 PM - 04.45 PM	S17103: A Review of Procurement and Management of Building Services Systems: Complexities and Technology Adoption <i>Sachindra Hewavitharana, Srinath Perera, Xiaohua Jin, Krisanthi Seneviratne, Keivan Bamdad</i>
04.45 PM – 05.15 PM	Q&A

Session Coordinator: Mr. Lakshitha Bandaranayake

FRIDAY, 15 AUGUST 2025

SESSION 2C

Theme	Sustainable Construction and Circular Economy Strategies
Session Chair	Prof. Lalith De Silva
Venue/Time	Room C - 03.30 PM - 05.30 PM
Virtual	Breakout Room - Session C

Time	Paper ID, Title and Author(s)
03.30 PM - 03.45 PM	S17058: Towards Successful Implementation of Offsite Construction in Sri Lanka: Barriers and Strategies <i>L.P.T. Manodya, R.P.H.S. Bandara, P.H.Y. Buddhini</i>
03.45 PM - 04.00 PM	S17023: Unlocking Efficiency in Timber Frame Construction: A Comparative Study of On-Site vs. Off-Site Approaches in Scotland <i>Georgia Fraser, Nirodha Fernando, Deeksha Sharma</i>
04.00 PM - 04.15 PM	S17031: Potential Use of Plastic Waste as a Sustainable Construction Material in Sri Lanka <i>S. Geerthanan, S. Sivanraj</i>
04.15 PM - 04.30 PM	S17043: Optimising Material Selection for Design for Deconstruction: A Kano Model-Based Evaluation of Doors and Windows <i>P.H.G.M.A. Ranasinghe, K.G.A.S. Waidyasekara, D.N.L.S. Nuwantha</i>
04.30 PM - 04.45 PM	S17050: Green Adaptive Re-Use of Buildings in Sri Lanka <i>H.G.S. Dushmantha, Udayangani Kulatunga, N.B. Nanayakkara, W.S.D Perera</i>
04.45 PM – 05.00 PM	S17059: Towards a Circular Economy: Evaluating Effective Implementation Strategies for Recycling and Reuse Programmes in Sri Lanka’s Construction Industry <i>S.D.V. Lakshan, W.M.C.L.K. Wijekoon, P.H.Y. Buddhini</i>
05.00 PM - 05.30 PM	Q&A

Session Coordinator: Ms. Anuki Kavirathna

FRIDAY, 15 AUGUST 2025

SESSION 2D

Theme	Human-Centered and Technological Approaches to Urban Disaster Resilience
Session Chair	Dr. Sachie Gunathilake
Venue/Time	Room D - 03.30 PM - 05.30 PM
Virtual	Breakout Room - Session D

Time	Paper ID, Title and Author(s)
03.30 PM - 03.45 PM	S17013: Disaster-Resilient Cities: Temporal Analysis of Urban Land Use Land Cover Changes and Urban Floods from 1999 To 2022: Case Study of Colombo, Sri Lanka <i>U. Abeysinghe, H.U.C.P. Hewawasam, J. Manatunga</i>
03.45 PM - 04.00 PM	S17039: Sustainable Urban Mobility in Sri Lanka: The Imperative for an Inherent Human-Centered Approach for Holistic Development <i>J.A.C.D. Jayalath, Udayangani Kulatunga</i>
04.00 PM - 04.15 PM	S17061: Review on Technological Interventions to Enhance Flood Resilience in the Built Environment <i>R.P.T. Nayanathara, M. Thayaparan</i>
04.15 PM - 04.30 PM	S17098: Serious Games for Disaster Risk Reduction: Enhancing Community Preparedness for Sustainable Futures <i>Udayangani Kulatunga, H. Tariq</i>
04.30 PM - 04.45 PM	S17111: Crowdfunding for Post-Disaster Reconstruction Projects: A Conceptual Framework <i>M.R.M. Riskan, K.D. Sepalage, D. Weerasooriya, K.A.T.O. Ranadewa</i>
04.45 PM – 05.00 PM	S17126: A Human Centred Approach to Post Disaster Resettlement Housing: Case Study on Walk-Up Apartments in Sri Lanka <i>M.S.N. de Zoysa, S.B.A. Coorey, M. Thayaparan, L. de Silva</i>
05.00 PM - 05.30 PM	Q&A

Session Coordinator: Mr. Yasith Sandaruwan

FRIDAY, 15 AUGUST 2025

SESSION 2E

Theme	Digital Innovations and Strategies for Energy Management in Built Environments
Session Chairs	Dr. Chandanie Hediwattage
Venue/Time	Room E - 03.30 PM - 05.30 PM
Virtual	Breakout Room - Session E

Time	Paper ID, Title and Author(s)
03.30 PM - 03.45 PM	S17037: Developing a Satellite-Enabled Digital Twin Ecosystem Framework for Energy Monitoring in Smart Cities in Sri Lanka: A Literature Review <i>Rusin Thathsara, Harshini Mallawaarachchi</i>
03.45 PM - 04.00 PM	S17042: Short-Term Electricity Demand Forecasting in Sri Lanka Using Statistical and Deep Learning Models <i>Ranju Kumari Shiwakoti, Piya Limcharoen, D.N.L.S. Uduwage</i>
04.00 PM - 04.15 PM	S17049: IOT Implementation for Energy Management within Residential Buildings in Sri Lanka: Drivers and Barriers <i>P. Theiventhralingam, S. Sivanraj, K.H.K Dharmadasa, Udayangani Kulathunga</i>
04.15 PM - 04.30 PM	S17071: The Effect of Vertical Greenery Systems on Building Energy Performance: Overall Thermal Transfer Value-Based Comparative Analysis <i>R.A.A. Munsif, Harshini Mallawarachchi, Dimuthu Vijerathne</i>
04.30 PM - 04.45 PM	S17073: Building Energy Data Management Systems in the World: A Review <i>S.D.R.Y. Silva, H.W.N. Madhusanka, K.A.R.V.D. Kahandawa</i>
04.45 PM – 05.00 PM	S17079: An Investigation into Effective Energy Behavior Control Strategies in the Apparel Manufacturing Sector <i>N. Premananth, S.D.A. Soorige</i>
05.00 PM - 05.30 PM	Q&A

Session Coordinator: Ms. Nawanjana Manapperuma

SATURDAY, 16 AUGUST 2025

SESSION 3A

Theme	Innovations in Sustainable Facilities and Maintenance Management
Session Chair	Dr. Tharusha Ranadewa
Venue/Time	Room A - 08.30 AM - 10.00 AM
Virtual	Breakout Room - Session A

Time	Paper ID, Title and Author(s)
08.30 AM - 08.45 AM	S17080: Rainwater Harvesting Systems as a Sustainable Water Management Strategy: Addressing Water Security Challenges in Sri Lankan Buildings <i>W.M.S.D. Wijerathna, G.A.K. Dulshan, K.A.S.H. Wjaysenarathne, R.M.A. Dilini</i>
08.45 AM - 09.00 AM	S17081: Applicability of Lean Maintenance Practices to Mitigate Maintenance Management Issues in Sri Lankan High-Rise Residential Buildings <i>U.H.M.S. Samaranayaka, U. Rathnayake, A.S.W Karunarathna</i>
09.00 AM - 09.15 AM	S17089: Shaping Regenerative Stormwater Management: A Conceptual Framework for Blue-Green Infrastructure <i>H. Nethmini, C. Hadiwattage, S. Sivanraj, M.M.N. Mannapperuma</i>
09.15 AM - 09.30 AM	S17101: Assessing the Impact of Organisational Culture on Digital Transformation in the Sri Lankan Facilities Management Industry <i>A.S.W. Karunarathna, Jayantha Wadu Mesthrige</i>
09.30 AM - 09.45 AM	S17102: Identifying Maintenance Training Needs in Sri Lanka's Apparel Industry and Augmented Reality as a Strategic Solution <i>W.M.I.H. Wijesundara, P. Sridarran, P.A.P.Y. Gajaba</i>
09.45 AM – 10.00 AM	Q&A

Session Coordinator: Mr. Kawshalya Sepalage

SATURDAY, 16 AUGUST 2025

SESSION 3B (Hybrid)

Theme	Sustainability, Social Impact, and Workforce in Global Construction
Session Chair	A/Prof. Gajendran Thayaparan
Venue/Time	Room B - 08.30 AM - 10.00 AM
Virtual	Breakout Room - Session B

Time	Paper ID, Title and Author(s)
08.30 AM - 08.45 AM	S17004: Coping Strategies Adopted by Inhabitants with Asbestos Cement Roof Houses in South African Legacy Township <i>Nonhlanhla Maphoso, Christopher Amoah</i>
08.45 AM - 09.00 AM	S17087: Assessing Key Risk Factors for Workers During Nighttime in the Indian Construction Industry <i>Naman Srivastava, Rohit Sahu, Sparsh Johari</i>
09.00 AM - 09.15 AM	S17113: Community Benefit and Engagement Frameworks in Australian Renewable Energy Transition: A Thematic Analysis <i>Umesha Weerapperuma, Navodana Rodrigo, M.K.C.S. Wijewickrama, George Zillante</i>
09.15 AM - 09.30 AM	T17118: Assessing Factors Influencing Worker Retention in the Indian Construction Industry <i>Akumoni Pegu, Rohit Sahu, Sparsh Johari</i>
09.30 AM - 09.45 AM	S17135: Sustainable Solar: Addressing the Growing Need for PV Panel Recycling <i>Tariq Umar, Sa'id Ahmed, Muhammad Qasim Rana</i>
09.45 AM – 10.00 AM	Q&A

Session Coordinator: Ms. Piumi Tennakoon

SATURDAY, 16 AUGUST 2025

SESSION 3C

Theme	Innovative Data-Driven Approaches for Cost and Quality Optimization in Construction
Session Chair	Senior Prof. Kanchana Perera
Venue/Time	Room C - 08.30 AM - 10.00 AM
Virtual	Breakout Room - Session C

Time	Paper ID, Title and Author(s)
08.30 AM - 08.45 AM	S17001: Perceived and Expected Cost Optimization Affordances of Building Information Modelling in Sri Lankan Construction Projects <i>J. Logendran, S. Sivanraj, V. Lingasabesan, Himal Suranga Jayasena, B.A.I. Eranga</i>
08.45 AM - 09.00 AM	S17005: A Study Assessing the Application of Artificial Neural Network for Preliminary Estimation in Sri Lankan Building Projects <i>U.P. Wijerathne, Udayangani Kulatunga, M.L.S.S. Fernando</i>
09.00 AM - 09.15 AM	T17008: Predicting Cost Elements of Construction Projects Using Supervised Machine Learning Techniques <i>K.A.M. Rasila, I. Mahakalanda, M.W. Edirisooriya</i>
09.15 AM - 09.30 AM	S17036: Optimizing Quality Management in the Construction Industry: A COQ-Based Predictive Analysis <i>Nandini Sharma, Rhijul Sood, Boeing Laishram</i>
09.30 AM - 09.45 AM	S17128: Exploring Perceptual Mapping Technique as an Innovative Method of Representing Construction Cost Information <i>D.N.L.S. Uduwage, Himal Suranga Jayasena, S. Piranavan</i>
09.45 AM – 10.00 AM	Q&A

Session Coordinator: Mr. Yasith Sandaruwan

SATURDAY, 16 AUGUST 2025

SESSION 3D

Theme	Policy, Education, and Sustainability Challenges
Session Chairs	Prof. Menaha Thayaparan
Venue/Time	Room D - 08.30 AM - 10.00 AM
Virtual	Breakout Room - Session D

Time	Paper ID, Title and Author(s)
08.30 AM - 08.45 AM	S17028: Constructing National Policy for Future Generations: A Design Approach to Children's Books <i>S. Samarawickrama</i>
08.45 AM - 09.00 AM	S17044: Decent Work Enforcement Gaps: Adapting Global Lessons into Sri Lankan Construction Industry <i>Sathyami Dissanayake, D.N.L.S. Uduwage, R.A.B.U.N. Perera</i>
09.00 AM - 09.15 AM	S17095: Evaluating the Effectiveness of Approved Document in Mitigating Overheating in Buildings: A Focus on Modern Methods of Construction <i>Patience Isaac, Roshani Palliyaguru, R.A.B.U.N. Perera</i>
09.15 AM - 09.30 AM	S17117: Impact of the Sri Lankan Government Economic Reform Programmes on the Construction Industry since Year 2022 <i>B. Gheethanjali, Y.G. Sandanayake, D.M.L.N. Bandaranayake</i>
09.30 AM - 09.45 AM	S17136: Present Realities and Future Directions of AI Integration within Built Environment Higher Education <i>L. Jones, A. Manewa, M. Siriwardena, V. Anagal, S. Karve, A. Guard</i>
09.45 AM – 10.00 AM	Q&A

Session Coordinator: Ms. Anuki Kavirathna

SATURDAY, 16 AUGUST 2025

SESSION 3E

Theme	Sustainable Waste Management and Material Innovation in Construction
Session Chair	Prof. Udayangani Kulatunga
Venue/Time	Room E - 08.30 AM - 10.00 AM
Virtual	Breakout Room - Session E

Time	Paper ID, Title and Author(s)
08.30 AM - 08.45 AM	S17027: A Bibliometric Analysis of Computer Vision Applications in Construction and Demolition Waste Management <i>A.S.W. Karunarathna, G.G.N. Chandani</i>
08.45 AM - 09.00 AM	S17021: Utilization of Textile Industry By-Products to Develop and Optimize Geopolymerized Mud Concrete for Sustainable Construction <i>K.G.C. Gayashani, R.K.N.P. Piyasena, D.A. Oshadhi, S.M. Young, R.U. Halwatura</i>
09.00 AM - 09.15 AM	S17076: Impact of Material Waste Management on Construction Cost of the Projects in Sri Lankan Construction Industry <i>Malith Jaypadma, Kumari Wijekoon, Hansi Deheragoda</i>
09.15 AM - 09.30 AM	S17124: Bridging the Gap: Enabling a Secondary Material Market for Construction and Demolition Waste <i>A.V.R.S. Kavindi, I.E. Illeperuma, M.D.T.E. Abeynayake</i>
09.30 AM - 09.45 AM	S17047: Urban Symbiosis in Municipal Solid Waste Management and Reduction: Insights from a Bibliometric Review <i>G.G.N. Chandani, A.S.W. Karunarathna</i>
09.45 AM – 10.00 AM	Q&A

Session Coordinator: Ms. Saambavi Sivanraj

SATURDAY, 16 AUGUST 2025

SESSION 4A

Theme	Enhancing Construction Performance through Innovation and Management
Session Chair	Dr. Nuwantha Uduwage
Venue/Time	Room A - 10.30 AM – 12.00 NOON
Virtual	Breakout Room - Session A

Time	Paper ID, Title and Author(s)
10.30 AM - 10.45 AM	S17012: Readiness to Implement Construction 4.0 Applications in Building Construction Projects in Sri Lanka <i>I.H.G.Y.M.W.U. Yaparathne, D.D. Dias, Kavini Guruge</i>
10.45 AM - 11.00 AM	S17077: Barriers for Time, Cost, and Quality Management in Polymer Modified Asphalt Road Construction in Sri Lanka <i>M.M. Nilanka, R.M.T.D. Rajapaksha, S.D. Gallage, D.M.L.N. Bandaranayake</i>
11.00 AM - 11.15 AM	S17086: A Scoping Review of Construction SMEs: Global vs Local <i>M.R.I.U.K. Ratnayake, M.R.D.P. Wijerathna, K.A.T.O. Ranadewa, B.A.K.S. Perera</i>
11.15 AM - 11.30 AM	S17099: Buildability Momentum across Project Stages: Empirical Insights from RIBA Plan of Work towards Sustainable Construction <i>P.L.I. Wimalaratne, Udayangani Kulatunga</i>
11.30 AM - 11.45 AM	S17120: Early Commissioning of MEP Works for Better Building Performance <i>Chathuranga Jayasinghe, Sachie Gunatilake, Dasuni Kodituwakku</i>
11.45 AM - 12.00 NOON	S17019: Artificial Intelligence-Driven Systems for Enhancing Worker Safety Monitoring in Construction Environments: A Comprehensive Review <i>J.A.U.S. Jayakody, P.R.H.N.G. Thilakarathna</i>
12.00 NOON - 12.15 PM	Q&A

Session Coordinator: Ms. Nimaya Perera

SATURDAY, 16 AUGUST 2025

SESSION 4B (Hybrid)

Theme	Innovative Approaches for Improving Construction Project Performance
Session Chair	A/Prof. Sivakumar Palaniappan
Venue/Time	Room B - 10.30 AM – 12.00 NOON
Virtual	Breakout Room - Session B

Time	Paper ID, Title and Author(s)
10.30 AM - 10.45 AM	S17010: Impact of Constructability Issues in Large-Scale Condominium Projects: A Case Study for Sri Lanka <i>N.H.V.T.N. Nanayakkra, K.P.H. Perera, R.U. Halwatura</i>
10.45 AM - 11.00 AM	S17064: Identifying and Quantifying the Challenges of Sri Lankan Public-Private Partnerships: A Sentiment Analysis Approach <i>Hirusheekesan Selvanesan, Udayangani Kulatunga, M.P.A.P. Wijayasiri</i>
11.00 AM - 11.15 AM	S17067: Unpacking Agile Project Management in Indian Construction: Adoption Barriers, Industry Readiness and Sustainability Viewpoint <i>Ankit Rakshit, Santhosh Loganathan</i>
11.15 AM - 11.30 AM	S17116: Financial and Socio-Economic Impacts of Implementing Active Design Principles in South African Office Buildings <i>Liezl Le Roux, Tascha Bremer</i>
11.30 AM - 11.45 AM	S17123: Beyond Efficiency: Rethinking Off-Site Construction for Post-Disaster Housing Reconstruction <i>A.P. Rathnasinghe, R.V.A.D. Rahubadda, N. Thurairajah, Udayangani Kulatunga</i>
11.45 AM - 12.00 NOON	Q&A

Session Coordinator: Ch. QS Dilshan Akalanka

SATURDAY, 16 AUGUST 2025

SESSION 4C

Theme	Building Performance and Resilience through Defect Analysis and Evaluation
Session Chair	Dr. Anupa Manewa
Venue/Time	Room C - 10.30 AM – 12.00 NOON
Virtual	Breakout Room - Session C

Time	Paper ID, Title and Author(s)
10.30 AM - 10.45 AM	S17009: Causes, Detection and Remediation of Water-Induced Building Defects: A Systematic Review <i>Argaw Gurmu, Dulani Denipitiya, Pabasara Upalakshi Wijeratne</i>
10.45 AM - 11.00 AM	S17051: The Impact of Incremental Vertical Housing Development on Quality of Space and Residential Environmental Satisfaction: A Case Study of Swarna Place, Colombo, Sri Lanka <i>M.S.M. Senarathna, A.A. Hettiarachchi</i>
11.00 AM - 11.15 AM	S17055: Post Occupancy Evaluation (POE) in Government Office Buildings: A Literature Review <i>H.D. Subhasingha, P.A.P.V.D.S. Disaratna, M.R.D.P. Wijerathna</i>
11.15 AM - 11.30 AM	S17057: Improving Insulation in Sri Lankan High-Rise Buildings: Defects, Causes, and Selection Criteria <i>M.P.G.I. Priyanjith, H.W.N. Madhusanka, K.A.D.M. Natasha</i>
11.30 AM - 11.45 AM	S17096: A Conceptual Framework for Capacity Building in Physical Asset Resilience <i>S.P. Koralage, P.A.D. Rajini, W.K.U.R.M.K.P.K. Samarakoon</i>
11.45 AM - 12.00 NOON	Q&A

Session Coordinator: Mr. Kawshalya Sepalage

SATURDAY, 16 AUGUST 2025

SESSION 4D

Theme	Sustainability Performance and Practices in the Built Environment
Session Chairs	A/Prof. Nirodha Fernando
Venue/Time	Room D - 10.30 AM – 12.00 NOON
Virtual	Breakout Room - Session D

Time	Paper ID, Title and Author(s)
10.30 AM - 10.45 AM	S17041: Assessing SDG 7 Performance: Identifying Relevant KPIs for the Sri Lankan Construction Industry <i>K. Thiruchelvam, D.N.L.S. Uduwage</i>
10.45 AM - 11.00 AM	S17070: Strategic Approach for Overcoming Barriers to Sustainable Entrepreneurship in Sri Lankan Construction Industry <i>R.P.S. Ranaweera, P. Sridarran, M.N.U Maddakandage</i>
11.00 AM - 11.15 AM	S17091: Systematic Literature Review for Re-Defining ‘Green’ in Hospitality: Typology-Sensitive Interpretations <i>I.R. Wijesuriya, B.A.K.S. Perera, C.C. Abenayake</i>
11.15 AM - 11.30 AM	S17119: Enhancing Sustainability in Renovation Projects: The Roles of the Contractor and Consultant <i>R. Jathurshan, K.G.A.S. Waidyasekara, H.C. Victar, M.M.N. Mannapperuma</i>
11.30 AM - 11.45 AM	S17121: Criteria for Selecting Retrofitting Options for HVAC Systems in Sri Lankan Commercial Buildings <i>G.N.T.J. Bandara, Sachie Gunatilake, Dasuni Kodituwakku</i>
11.45 AM - 12.00 NOON	Q&A

Session Coordinator: Ms. Dewmini Wijerathne

SATURDAY, 16 AUGUST 2025

SESSION 4E

Theme	Optimising Public Procurement through Social Value and Competency
Session Chairs	Ch. QS Vijitha Disaratna
Venue/Time	Room E - 10.30 AM – 12.00 NOON
Virtual	Breakout Room - Session E

Time	Paper ID, Title and Author(s)
10.30 AM - 10.45 AM	S17026: Integration of the Concept of Social Procurement into Construction Procurement in Sri Lanka <i>Malintha H. Fernando, B.A.K.S. Perera</i>
10.45 AM - 11.00 AM	S17065: Shaping Successful Procurement Futures: The Evolving Landscape of Public-Private Partnerships in Sri Lanka <i>G. Fernando, C. Hadiwattege, M. Thayaparan, U. Kulathunga</i>
11.00 AM - 11.15 AM	S17066: Establishing Schedule Quality Parameters for Effective Delay Analysis in Construction Projects <i>Sneha Baskar, Murali Jagannathan, Dheeraj K Ubhayakar, K Hariharan</i>
11.15 AM - 11.30 AM	S17093: Competency Requirement for Professionals Involved in Public Construction Procurement Process: A Review <i>S.S. Weerathunge, K.A.T.O. Ranadewa</i>
11.30 AM - 11.45 AM	T17106: Developing a Knowledge Value Chain Framework for Tendering in Sri Lankan Construction Organizations <i>Lebunu Hewage Udara Willhelm Abeydeera, Jayantha Wadu Mesthrige, A.S.W. Karunarathna</i>
11.45 AM - 12.00 NOON	Q&A

Session Coordinator: Ms. Nishadi Nanayakkara

CHIEF GUEST

Emeritus Prof. Malik Ranasinghe

**Emeritus Professor,
University of Moratuwa, Sri Lanka**



Professor Malik Ranasinghe is an Emeritus Professor at the University of Moratuwa and the Vice President of the National Academy of Sciences Sri Lanka. He is a Chartered Engineer and Fellow of the Institution of Engineers, Sri Lanka, Fellow of the National Academy of Sciences, Sri Lanka, Fellow of the Institute of Project Managers, Sri Lanka and Graduate Member of Sri Lanka Institute of Directors.

Prof. Ranasinghe graduated with BSc Eng, (Hons). in Civil Engineering from the University of Moratuwa and obtained his MSc in 1987 and PhD in 1990 from the University of British Columbia, Vancouver, Canada in Civil Engineering Economics as a Canadian Commonwealth Scholar. He was awarded the DSc (Honoris Causa) by the University of Moratuwa, Sri Lanka in 2024. Prof. Ranasinghe's research focus is to combine civil engineering economics, risk analysis and environmental economics with project management. He has published over 145 research publications, of which 79 are international refereed publications. His Hirsch Index (h-Index) is 19 and he is a Sri Lanka Tier 4* researcher.

Prof. Ranasinghe is the former Vice Chancellor of the University of Moratuwa, and former Chairman of the Information and Communication Technology Agency (ICTA) of Sri Lanka, He is former Chairman of the Committee of Vice-Chancellors and Directors of Sri Lanka, Commission Member of the University Grants Commission, Council Member of the National Research Council, Council Member of the Association of Commonwealth Universities (ACU), former Dean of the Faculty of Engineering, and Chairman, Centre of Excellence in Project Management at the University of Moratuwa. He is a former Fellow of the National University of Singapore. Prof. Ranasinghe has also been involved with the corporate sector in Sri Lanka since 2003. He is an independent non-executive Director of Pan Asia Bank PLC and ACL Cables PLC, former Chairman of Sampath Bank PLC, and former independent non-executive Director of Access Engineering PLC, Resus Energy PLC, Teejay Lanka PLC, United Motors Lanka PLC, Sampath Bank PLC, Hemas Power PLC, Lanka IOC PLC, and the Colombo Stock Exchange.

KEYNOTE SPEAKERS

Prof. David Proverbs

**Associate Pro Vice-Chancellor for Enterprise and Business Innovation,
De Montfort University, United Kingdom**



Keynote on ‘Building Resilient Communities: Lessons from the UK Flood and Coastal Resilience Innovation Programme (FCRIP)’

Professor David Proverbs is Associate Pro Vice-Chancellor for Enterprise and Business Innovation at De Montfort University, responsible for developing the knowledge exchange strategy. He has over 30 years of experience in higher education and held strategic leadership roles in four modern universities. He is passionate about the environment, a great believer in the benefits of working in a global society and committed to creating opportunities for our students to become global, climate aware citizens. He has developed significant regional, national and international research and enterprise collaborations drawing on a range of funding sources to pioneer innovative solutions towards improving resilience to flooding. His research has had significant national and international impact in the development of UK Climate Change Policy; as lead innovation adviser to the Environment Agency’s Trent Regional Flood and Coastal Committee; and through supporting the development of national flood risk strategies, for example in Brazil, China, Nigeria, Peru and the UK. He is Editor in Chief for the International Journal of Building Pathology and Adaptation and the Journal of Flood Risk Management.

KEYNOTE SPEAKERS

Prof. Srinath Perera

**Chair Professor of Built Environment and Construction Management,
Founding Director - Centre for Smart Modern Construction (c4SMC),
Western Sydney University, Australia**



Keynote on ‘Sustainability and Circularity through Digitalisation’

Professor Srinath Perera is the Chair Professor of Built Environment and Construction Management and Founding Director of the Centre for Smart Modern Construction (c4SMC) at Western Sydney University. He is President of AUBEA, Chair of the CIB Future Leaders Committee, and Founding Chair of the CIB Doctoral School. He also serves as Editor-in-Chief of Construction Innovation (Q1) and Specialty Editor-in-Chief of Frontiers Blockchain (Industry). A pioneer in construction informatics, Professor Perera integrates AI, Blockchain, IoT, BIM, Digital Twins, and sustainability into construction and project management. He has authored over 300 peer-reviewed publications and led major research initiatives, including securing over \$700k in industry funding and participating as Chief Investigator in ARC grants exceeding \$30 million. He currently holds a national grant to develop a digitalisation policy for the construction industry. He is a Fellow of the Royal Society of NSW and the Australian Institute of Building, and a Chartered Surveyor affiliated with RICS, AIQS, and AIPM. With over 30 years' experience in academia and industry, he has been recognised with awards such as the AIB Professional Excellence Awards (2019, 2024) and the 2024 Vice Chancellor's Award for Excellence in Postgraduate Supervision. His work continues to shape innovation and leadership in the built environment sector.

PANEL DISCUSSION

Panel Discussion on ‘2030 Step Ahead: Strategic Foresight for the Sri Lankan Construction Industry’

Panel Members : Prof. David Proverbs
Prof. Srinath Perera
Prof. Chithra Weddikkara
Dr. Rohan Karunaratne
Dr. Kalana Alwis

Panel Moderator : Ch.QS. Lalith Ratnayake

Thematic Summary : Dr. Suranga Jayasena
Contributor

Panel Member



Prof. David Proverbs

**BSc (Hons), PG Cert-Ed, PhD, MBA, PFHEA, FCIOB, FRICS
Associate Pro Vice-Chancellor for Enterprise and Business Innovation
De Montfort University, United Kingdom**

Professor David Proverbs is Associate Pro Vice-Chancellor for Enterprise and Business Innovation at De Montfort University, responsible for developing the knowledge exchange strategy. He has over 30 years of experience in higher education and held strategic leadership roles in four modern universities. He is passionate about the environment, a great believer in the benefits of working in a global society and committed to creating opportunities for our students to become global, climate aware citizens. He has developed significant regional, national and international research and enterprise collaborations drawing on a range of funding sources to pioneer innovative solutions towards improving resilience to flooding. His research has had significant national and international impact in the development of UK Climate Change Policy; as lead innovation adviser to the Environment Agency's Trent Regional Flood and Coastal Committee; and through supporting the development of national flood risk strategies, for example in Brazil, China, Nigeria, Peru and the UK. He is Editor in Chief for the International Journal of Building Pathology and Adaptation and the Journal of Flood Risk Management.

Panel Member



Prof. Srinath Perera

**PhD, MSc IT, BSc (Hons) QS, FRSN, FAIB, MRICS, AAIQS, ICECA,
MICCPM, MAIPM**

**Chair Professor of Built Environment and Construction Management,
Director - Centre for Smart Modern Construction (c4SMC),
Western Sydney University, Australia**

Professor Srinath Perera is the Chair Professor of Built Environment and Construction Management and Founding Director of the Centre for Smart Modern Construction (c4SMC) at Western Sydney University. He is President of AUBEA, Chair of the CIB Future Leaders Committee, and Founding Chair of the CIB Doctoral School. He also serves as Editor-in-Chief of Construction Innovation (Q1) and Specialty Editor-in-Chief of Frontiers Blockchain (Industry). A pioneer in construction informatics, Professor Perera integrates AI, Blockchain, IoT, BIM, Digital Twins, and sustainability into construction and project management. He has authored over 300 peer-reviewed publications and led major research initiatives, including securing over \$700k in industry funding and participating as Chief Investigator in ARC grants exceeding \$30 million. He currently holds a national grant to develop a digitalisation policy for the construction industry. He is a Fellow of the Royal Society of NSW and the Australian Institute of Building, and a Chartered Surveyor affiliated with RICS, AIQS, and AIPM. With over 30 years' experience in academia and industry, he has been recognised with awards such as the AIB Professional Excellence Awards (2019, 2024) and the 2024 Vice Chancellor's Award for Excellence in Postgraduate Supervision. His work continues to shape innovation and leadership in the built environment sector.

Panel Member



Prof. Chithra Weddikkara

**BSc (BE), A. Arch. (Aust), B. App. Q.S. (Distent.) (Aus), MSc. Build. (Aus.),
PhD Law (Aus), FRICS, ARAIA, AAIQS FIA (SL), FIQS (SL) IPMSL
Emeritus Professor, Department of Building Economics, University of Moratuwa**

Prof. Chithra Weddikkara is a globally respected authority in building economics and quantity surveying with over three decades of leadership in Sri Lanka's built environment sector. As a former Head of the Department of Building Economics and former Dean of the Faculty of Architecture at the University of Moratuwa, she guided the establishment of undergraduate and postgraduate programmes including Quantity Surveying, Facilities Management, Project Management, and Dispute Resolution and Law. Her influence extends to academia and professional governance: she is a Chartered Quantity Surveyor and Architect, and holds fellowships with RICS, AIQS, IQSSL and FIPMSL. Prof. Weddikkara has served as President of the Institute of Quantity Surveyors Sri Lanka (IQSSL), the Sri Lanka Institute of Architects (SLIA), and Commonwealth Association of Surveyors and Land Economists (CASLE). She has also held leadership roles with CIDA, ICTAD, RICS Sri Lanka, and the Green Building Council Sri Lanka.

Panel Member



Dr. Rohan Karunaratne

**B.E (India), T.Eng. (CEI), MIE (Lon.), MBA (UK), FIIM (HK), FCIQB
(Ceylon), PhD (USA)
President, Ceylon Institute of Builders (CIOB)**

Dr. Rohan Karunaratne is a distinguished engineer, entrepreneur, and industry leader with an exceptional track record in construction, finance, and corporate governance across South Asia. Holding a B.E. from India, an MBA from the UK, and a Ph.D. from the USA, he is also a Chartered Engineer and a Fellow of multiple international professional bodies. He currently advises the Ministry of Justice, Prison Affairs and Constitutional Reforms and the Export Development Board and serves in the SAARC General Assembly. Dr. Karunaratne chairs several initiatives, including Human Resource Development, the Overseas Training Academy, and the South Asian Lean Construction Association, where he is President. His leadership portfolio includes serving as President of the Ceylon Institute of Builders (CIOB) and the Chamber of Construction Industry (Vice President), as well as Past President of the National Construction Association of Sri Lanka. In the corporate sector, he has chaired or directed multiple organisations, from AKK Engineers and Arpico Finance to Hatton National Bank and Sino Lanka Hotels and Spa. Renowned for championing lean construction, sustainable industry practices, and cross-border collaboration, Dr. Karunaratne brings with him a wealth of expertise and vision.

Panel Member



Dr. Kalana Alwis

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Dr. Kalana Alwis, D.Eng. (USA), is a distinguished civil engineer and business leader with over 40 years of experience in Sri Lanka's construction industry. Starting his career at the Department of Irrigation, he joined Nawaloka Construction Company in 1985 and rose to become its Director/Chief Executive Officer. Under his leadership, the company achieved ISO 9001:2015, ISO 14001:2015, and OHSAS 45001:2018 certifications, expanding its presence in high-rise, highway, heavy construction, and design-and-build projects locally and internationally. In recognition of his contributions, the American National Business University, USA, awarded him the title of Doctor of Engineering Management in 2022. He holds key leadership roles in the industry, including Chairman of Engineering & Construction at the National Chamber of Commerce of Sri Lanka, Vice President of the Major Constructors of Sri Lanka, the Ceylon Institute of Builders and Vice Chairman of Major and Specialist Constructors of Sri Lanka. He is also a Council Member of the Chamber of Construction Industry and the Advisory Committee Member of the Sri Lanka Export Development Board. His leadership extends internationally through his role on the Executive Committee of the Consulate of the Republic of Philippines in Colombo. Throughout his career, Dr. Alwis has not only elevated his company's industry standing but also brought pride to his alma mater, Rahula Vidyalaya, Matara.

Panel Moderator



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