



Singapore Institute  
of Building Limited

# SUSTAINABILITY IN BUILT ENVIRONMENT

This seminar is for you!

---

You are in a management  
role or leadership position  
and want to lead the  
sustainability transition  
within your team and  
organisation.

**Date** : 16 September 2023

**Time** : 9.00am - 5.00pm

**Venue** : National University of  
Singapore Society Kent Ridge  
Guild House, Right Chamber  
Room 9 Kent Ridge Drive,  
Singapore 119242

## Seminar Fees

- SIBL/BEMA/CIJC Members : \$100
- Non-Members : \$150

## CPD Points

- SGBC-GMAP CPD Points - 4
- PEB PDU CPD Points - 4



Singapore Institute  
of Building Limited

## PROGRAMME DETAILS

- 8.30am** Registration
- 9.00am** Opening remarks
- 9.10am** Driving Innovation through Impactful Solutions. Discover the connection between sustainability and innovation.  
- **Dr Sussie Ketit**
- 10.10am** Tea break
- 10.40am** Reducing Embodied Carbon using Low-Carbon Concrete Technologies - **Dr Wang Su**
- 11.40am** Q & A
- 12.00pm** Lunch
- 2.00pm** Carbon Footprint and Net ZERO journey in Built Environment - **Dr Parvathy Subhadra**
- 3.00pm** Tea break
- 3.30pm** Built Environment and Decarbonization - A lifecycle approach. - **Mr Gavin Chan**
- 4.30pm** Q & A and end of the seminar



Singapore Institute  
of Building Limited

# REGISTRATION



SCAN AND  
REGISTER NOW!

# Topic Synopsis

**Speaker : Dr Sussie Ketit**

**Topic : Driving Innovation through Impactful Solutions. Discover the connection between sustainability and innovation.**

**Synopsis :** Sustainability has become a top priority among decision-makers in our current global economic, political and business environment.

This session of the seminar has been designed to help professionals apply innovative business case for sustainable solutions and what the future of business looks like with sustainability in mind.

Participants will also learn how to manage and lead a sustainable business by incorporating circular economy principles strategies to support sustainable growth.

**Speaker :Dr Wang Su**

**Topic : Reducing Embodied Carbon using Low-Carbon Concrete Technologies.**

**Synopsis :** Embodied carbon refers to the carbon emissions associated with raw materials used in the construction of a building. It cannot be mitigated once a building is completed. Without targeted actions, embodied carbon will likely surpass the operating emissions of buildings in the coming decades. The market is going through a green transition with the adoption of CCU technology, which traps waste CO2 within concrete, to produce CO2 mineralized concrete with the same levels of durability, workability, and performance. The urgent need to reduce embodied carbon starts in the design and selection of low-carbon building materials which has a great impact in the building's whole life carbon.

**Speaker : Dr Parvathy Subhadra**

**Topic : Carbon Footprint and Net ZERO Journey in Built Environment**

**Synopsis :** Our built environment contributes to a large share of carbon emissions. With all countries talking about climate change and sustainable solutions it becomes important to first know what is the importance of carbon foot printing, how to calculate carbon footprint, the different standards of the ISO 1460 family, why and how to address embodied and operational carbon, life cycle assessment and its importance.

With the 2030 breakthrough upon us, Net ZERO has become a goal and we have to aim for targeted actions and initiatives for the built sector. We need to figure out how to effectively apply circular economy principles towards this to ultimately make Net ZERO part of the common man's day-to-day activities in Singapore.

**Speaker : Mr Gavin Chan**

**Topic : Built Environment and Decarbonization - A lifecycle approach.**

**Synopsis :** The built environment contributes to 40% of the global carbon emissions. In this session we examine the concepts of embodied and operational carbon that forms the carbon footprint of a building over its lifecycle and examine key strategies to mitigating the carbon resulting from the building and operation of buildings from both embodied and operational carbon perspectives to help meet the green building and sustainability goals of building developers and owners.

# Speakers' Profile

## **Dr. Sussie Ketit**

**Founder, SGP Farmtechnology Pte Ltd**

**President, SIBL**

Dr Sussie Ketit holds a PHD in Problem-Based Learning, Master of Engineering (Electrical), MSC in Health Administration and MSc in Sustainability.

She has served as Regional Director for Danish Companies completing multi-million dollars project for High Technology Livestock and Agri facilities in South East Asia, bringing more than 17 years of experience at the highest level in international relations, specialising in climate change, global governance, sustainable development and protection of animal welfare.

Being an active member for over 10 years in SIBL, seated on board for 3 terms, she is elected as the President of the Singapore Institute of Building Limited (SIBL) in 2020, The Professional Institute incorporated since 1981 in Singapore for Qualified Professionals engaged in Building practices in a managerial, technical, or administrative capacity in the development, construction, and maintenance of buildings, including those who are engaged in academic research and teaching.

## **Dr. Wang Su**

**Senior Scientist, Pan United**

Dr Wang has over a decade of experience conducting research on concrete and cementitious materials. At Pan-United, Dr Wang utilises the latest technology to innovate and develop specialised low-carbon concrete for the built environment. Currently, Dr Wang is a Co-Principal Investigator of a project sponsored by Singapore's national water agency, PUB, on the applications of carbon-negative minerals recovered from waste streams in concrete.

Dr Wang has published many high-quality Science Citation Index (SCI) research papers, on topics such as lightweight concrete, ultra-high performance concrete, the application of nano-materials in concrete, the thermal properties of concrete, the long-term durability of concrete, the structural performance and numerical modelling of concrete structures, carbon curing technology for concrete and the effect of temperature on concrete.

Dr Wang holds a PhD and a Master of Science from the School of Civil and Environmental Engineering at the Nanyang Technological University in Singapore.

# Speakers' Profile

## **Dr. Parvathy Subhadra**

**Founder and Managing Director, Green in Future Pte Ltd**

**Fellow, SIBL**

Dr. Parvathy is the Founder and Managing Director of Green In Future Pte Ltd, a media business consultancy providing awareness on Sustainability and Climate change issues. A sustainability pioneer with almost two decades of experience in the sustainability domain, she is a fellow of the Singapore Institute of Building Limited and a member of the Sustainability Committee. She specialises in advising start-ups on Circular economy projects.

## **Mr Gavin Chan**

**Head(Sustainability Office), CPG Corporation**

Gavin joined CPG Consultants in 2013 as a Geotechnical Engineer and eventually managed large-scale design projects before setting up the Group Sustainability Office. In design practice, Gavin places an emphasis on the decarbonization of design and construction. Gavin worked closely with the Building and Construction Authority (BCA) in formulating and executing the Industry Transformation Map (ITM) where he championed the merits of Design for Manufacturing and Assembly (DfMA), a construction and design philosophy that reduces site work. This improves efficiency and brings down the embodied and operational carbon of the built environment. Today, he is responsible for the Sustainability practices of the CPG group and coordinates the multi-disciplinary sustainability business capabilities.

Gavin actively promotes the industry and lectures at BCA Academy, delivering programs like the S. Diploma in zBIM, S. Diploma in Underground Construction. In his personal time, Gavin is a grassroots leader and spearheads the Green Action for Communities for East Coast GRC, and Marine Parade Division which promotes and encourages residents to live sustainably. In this capacity, Gavin bridges government policies on sustainability to the ground. He is also a citizen scientist interested in butterflies and cycles everywhere.

Gavin graduated from NTU with a B.Eng (Hons) Civil and holds a specialist Diploma in DfMA. He was nominated as BCA Young Leader in 2017, a recipient of the Young Consulting Engineer of the Year in 2019, and NTUC Model Worker in 2020.