
Register in advance:

https://nus-sg.zoom.us/meeting/register/tZIuduuhpzwiGdUmu-0TOzfYihg9tB-Qm4Vf

After registering, you will receive a confirmation email containing information about joining the meeting.

**Topic 1: Structural Engineering and the Climate Emergency by Will Arnold**

A Climate Emergency that has been declared around the world. This lecture will give an overview of what this means, the understanding of scientists as to what is happening to our climate, and the changes that we expect to see occur in the next decades. Will Arnold will introduce the role of the structural engineer within the Climate Emergency, outlining our responsibility as professional engineers, and discussing some of the methods that we may use to reduce our impact on the planet.

**Speaker Profile: Mr. Will Arnold**

Head of Climate Action, the Institution of Structural Engineers

Will leads the institution's response to the climate emergency, leading activities across the institution to put sustainability at the heart of everything we do as structural engineers. His main focusses are on resetting the requirements for professional engineers, and upskilling the engineering community to respond to the current needs of the world.

Previous to his work with IStructE, Will was a practising structural engineer at Arup for 10 years where he was responsible for key aspects of ambitious architectural projects across the world. In 2021, Will was presented with the President's Award by the Institution, in recognition of his work instigating change in the field of structural sustainability.

**Topic 2: Reducing project's carbon footprint through Green Mark 2021 Whole Life Carbon by Ms. Chan Vun Ching**

Buildings and their construction combined are globally responsible for 40% of energy-related total direct and indirect CO2 emissions. Operating emissions constitute the majority of these emissions at 28%. Over the years, the industry has established multiple pathways and strategies to effectively lower operational carbon emissions, but embodied carbon emissions are often overlooked. As our buildings become more operational carbon efficient with technological improvements, the need to ensure embodied carbon emissions are sufficiently addressed before the project moves beyond the design stage is becoming more crucial. Under the revised framework of Green Mark GM 2021, a "Whole Life Carbon" section has been introduced which takes a holistic view of a project's carbon footprint over its life cycle and how the project can reduce its embodied carbon footprint through sustainable construction practices and low carbon materials.

**Speaker Profile: Ms. Chan Vun Ching**

Principal Manager, Super Low Energy Buildings Department,
Environmental Sustainability Group,

Building and Construction Authority

Ms. Chan Vun Ching's portfolio includes conducting Green Mark assessments and verifications under the BCA Green Mark Scheme which certifies buildings on their energy efficiency and level of environmental sustainability. She is a Green Mark Advanced Accredited Professional (GMAAP) and is involved in the development and implementation of the Whole Life Carbon section, as part of the Green Mark GM 2021 with her team members and industry stakeholders. She is a member of the Singapore Green Building Council (SGBC) Civil and Structural (C&S) Technical Committee. Prior to joining the Environmental Sustainability Group, she was administering the regulatory periodic structural inspection of existing buildings, dangerous buildings and enforcement of unauthorised building works under the Building Control division of BCA.

**Topic 3: How to Reduce Embodied Carbon in Building Projects**

There is currently a lot of discussion on embodied carbon in buildings but how can we reduce it?

This talk will provide practitioners with some insight into various ways to reduce embodied carbon and its associated challenges for building projects. Mr. Joe Lam will also present on timber as a structural material and its sustainability perspective.

**Speaker Profile: Er. Joe Lam**

Associate Principal, Arup Singapore

Joe Lam is Arup Singapore Property Business Leader and experienced in managing high-rise, large-scale, multi-disciplinary projects in East Asia Region with a specialty in structural steelwork design. He is a local expertise having a track record working with international Clients and world-renowned Architects. He is also holding a sustainability portfolio as Construction Declares representative for Arup Singapore promoting reuse of existing building and embodied carbon counting in projects. He has worked in Macau, China, Hong Kong and Singapore in the past 20 years.