



# **GREENRE TECHNICAL** **SEMINAR 02-2021 (ONLINE)**

- **OVERVIEW OF GREENRE BUILDING & TOWNSHIP DESIGN SIMULATIONS**
- **OVERVIEW OF GREENRE WATER EFFICIENCY & CARBON CALCULATIONS**

**25 & 26**  
**AUGUST 2021**

CPD: GREENRE (5), LPPEH & ST (tbc).

## **COURSE FEES**

- RM 399 (GREENREAP & REHDA member)
- RM 499 (non-member)

## **COURSE SCHEDULE**

### **DAY 1 (25 August 2021)**

- Introduction to GreenRE Building Simulations (9.30 am - 12.30pm)
- Introduction to GreenRE Township Simulations (2.30 pm - 5.30 pm)

### **DAY 2 (26 August 2021)**

- BIM for green simulations (9.30 am - 11.30 am)
- GreenRE Water Efficiency & Carbon calculations (11.30 am - 1.00 pm)

**REGISTER ON OUR WEBSITE, [WWW.GREENRE.ORG](http://WWW.GREENRE.ORG)  
FOR ANY ENQUIRIES, CONTACT MS. NARIEMAH AT  
[TRAINING@GREENRE.ORG](mailto:TRAINING@GREENRE.ORG) / 019-6339514**

# OVERVIEW OF GREENRE BUILDING & TOWNSHIP DESIGN SIMULATIONS

**SPEAKERS: MR KEN PO & MR  
SAKET SARUPRIA (BUILDING  
SYSTEM & DIAGNOSTICS PTE. LTD.)**

- This topic will be divided in two parts. Part one will focus on the building scale covering GreenRE requirements for building performance simulations. How parametric approaches can be used for optimizing building envelope thermal performance and creating energy efficient building design? It will also include various case studies including computational fluid dynamics (CFD) simulations, daylighting studies, ROI calculation and energy modelling simulations.
- Part two will focus on the masterplan or township scale where we will look at large-scale urban simulations and various sustainability strategies for optimizing energy, water and waste. It will touch upon optimizing building massing to improve outdoor thermal comfort and pedestrian wind comfort. How we can leverage on parametric studies for optimizing shading design in order to minimize solar heat gain from the façade and finding the most optimum areas for the placement of photovoltaics for maximum energy yield.
- Mr. KEN PO is an Associate Director at Building System & Diagnostics Pte Ltd. He graduated from University of Kansas and practiced as a CFD Engineer in USA for more than 5 years before returning to Southeast Asia. He is now specialized in 3 dimensional CFD analysis for the simulation of airflow inside and outside buildings for the prediction of thermal comfort, air quality and contaminant distribution. He also successfully used CFD to evaluate effectiveness of fabric duct ventilation system for a large aircraft hanger in Singapore.
- Mr. SAKET SARUPRIA is an architect by training. As a sustainability consultant in a built environment, Saket's expertise lies in environmental performance analysis, multi objective design optimization and computational fluid dynamics simulations. He is actively leveraging on new tools and technology to automate workflows and improve design efficiency.

# OVERVIEW OF BIM FOR GREEN BUILDING SIMULATIONS AND GREENRE WATER EFFICIENCY & CARBON CALCULATIONS

**SPEAKERS: AR. DR. LIM YAIK WAH  
(UTM) & MS. NUR FATEHA  
(GREENRE)**

- This topic is to cover the capabilities of Building Information Modelling (BIM) for green building simulations.
- Meanwhile, the topic of GreenRE Water Efficiency will briefly explains on the simplified version of water usage calculator which includes the calculation of assumptions for baseline and design water consumptions (both indoors and outdoors) of the building. With this calculator, the project will be able to estimate on saving by rainwater harvesting and water efficiency fittings.
- Introduce GreenRE carbon's calculations for Part 6: Carbon Emission of Development that covers operational and embodied carbon. Embodied carbon covers the main construction materials such as glass, concrete, steel etc for a project.
- Ar. Dr. LIM YAIK WAH is currently an Associate Professor of Architecture at the Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia (UTM). He obtained B.Arch in 2008 and PhD in Architecture in 2011. His areas of expertise are sustainable architecture, building information modelling (BIM), building performance simulation and daylighting. He has experience of conducting and leading more than 30 interdisciplinary research and consultancy projects related to sustainable architecture and BIM. Besides, he has authored more than 100 publications in leading journals and conferences in the relevant fields which accumulated more than 600 citations. Furthermore, he is a professional Architect, green building consultant, certified BIM instructor and member of LAM, PAM and MGBC.
- Ms. NUR FATEHA JAMALUDDIN is an Assistant Manager from GreenRE who has more than 7 years experience in green building's field. She graduated from MARA University of Technology (UiTM) Shah Alam in Bachelor of Engineering (Hons.) Mechanical and Master's Degree in the same course at University Technology Malaysia (UTM). She is responsible in managing the GreenRE Project Assessment.