# Certification Course on Solar Modelling

## **INTRODUCTION**

Solar simulation studies could be carried out to assess the effectiveness of buildings' passive design – achieve optimal building orientation and welcome natural daylighting into buildings, which aims to reduce heat gain and use of artificial lightings respectively. Conversely, it is important to ensure that the amount of daylight reaching the building interior does not cause any discomfort to the occupants. Moreover, solar simulations could help designers analyse and determine optimal placement of solar photovoltaics to harness the maximum yield possible.

#### **LEARNING OUTCOMES**

This course aims to equip industry practitioners with knowledge to conduct solar modelling simulations as well as identify strategies to maximise the use of abundance sunlight available.

At the end of the course, the participants will be able to:

- Perform modelling simulations on various aspects such as sunpath, daylighting, radiation etc.;
- Assess and identify optimised solar photovoltaic locations/areas and calculate potential energy yields; and
- Analyse results and determine strategies to improve the overall comfort for building occupants.

## **TARGET AUDIENCE**

Industry practitioners who are keen to embark on Green Mark journey or play the role of a Green Specialist; e.g. Developers, Building Owners, Architects, Engineers, Consultants, Project Managers, Facility Managers etc.

#### **KEY LECTURER**

**ADELINA JAYA** is an Associate Director of DP Sustainable Design. Her expertise is in environmental and building analysis with emphasis on climatic responsive design, urban heat island effect, passive cooling strategy and wind driven rain simulation. Adelina plays an instrumental role in work related to computational fluid dynamics, daylighting, solar shading design, building simulations and modelling. Throughout her years with DPSD, Adelina has completed numerous building types ranging from master planning, institution, commercial and residential developments in both Singapore and overseas.

#### **ASSESSMENT AND AWARD**

An e-Certificate of Successful Completion (e-CSC) will be issued to participants who:

- Achieve at least 75% class attendance; and
- Pass group project assignment.

For information on the Green Mark Professional Qualification Scheme administered by the Singapore Green Building Council, please visit https:// gmap.sgbc.online/public/about



To register, please log into our Online StoreFront (OSF) at https://eservices.bcaa.edu.sg/registration/#/login or scan QRcode and search for course code 73086

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# BCA ACADEMY



#### **DETAILS**

Date: 17, 18 & 21 Aug 2023 Time: 9.00am to 6.00pm Venue: BCA Braddell Campus Fee (incl of GST): S\$1,250.00

In keeping with our green and sustainable practices, course notes will be available in *e*-format.

#### **CPD POINTS**

BOA-SIA: -PEB: -SCEM: -SGBC-GMAP: -