



ASSOCIATION OF  
CONSULTING ENGINEERS  
SINGAPORE

## Autodesk-ACES Workshop: Exploring Structural BIM to Analysis Workflows & Model Automation Procedures



**Date:** **31 May 2023 6 July 2023 (Thursday)**  
**Time:** **2.00 pm to 5.30 pm**  
**Mode of Delivery:** Classroom-based  
**Venue:** **Autodesk Office**  
 3 Fusionopolis Way #10-21 Symbiosis  
 Singapore 138633  
**Fee:** Complimentary for ACES Member  
**CPD:** **3 PDU**

Registration link and QR Code  
<https://forms.gle/DGTtTjCrmz4sAP6Q9>



**Note: All participants to bring own laptop**

### LEARNING OBJECTIVES

- ❖ Increasing productivity and enabling collaboration
- ❖ Design & BIM Data Management.
- ❖ BIM & Analysis Interoperability
- ❖ Preparing Structural Building information Models for IFC-SG Submission requirements

### TOPIC & AGENDA

Exploring Structural BIM to Analysis workflows & Model Automation procedures.

- ❖ Hands-on: Revit-Dynamo-Robot
- ❖ Hands-on: Corenet X - IFC-SG Parameters for Revit & Checking Structural Models
- ❖ Showcase: Generative design
- ❖ Showcase: CSIxRevit Interoperability

### Prerequisites to be installed:

- \* Revit 2023
- \* DYNAMO v.2.16.1
- \* Robot Structural analysis 2023
- \* Datasets will be provided 1 week before the session

Time		Agenda
2.00 pm to 2.20 pm	20 mins	Introduction to Dynamo for Revit (Lecture)
2.20 pm to 3.00 pm	40 mins	Dynamo fundamentals and setup (Hands-on)
3.00 pm to 3.10 pm	10 mins	Short Break
3.10 pm to 4.10 pm	60 mins	Integrating Structural Design and Analysis: The Basics of a Revit-Robot Structural Analysis Workflow (Hands-on)
4.10 pm to 4.30 pm	20 mins	Introduction to Generative design in Dynamo-Revit
4.30 pm to 4.50 pm	20 mins	Introduction Rhino Inside Revit - Structural framing from Grasshopper to Revit
4.50 pm to 5.20 pm	30 mins	Introduction to CSIxRevit enables bi-directional data transfer to CSI Software: SAP2000® , ETABS® and SAFE® . Bi-Directional data Transfer plugin for REVIT®
5.20 pm to 5.30 pm	10 mins	Q/A - Session Wrap Up
5.30 pm		End of Workshop

## THE SPEAKERS



**Ir. Sagar Thorat**  
Technical Solutions Executive, AEC

**An Architectural Engineer and BIM Technologist with over 13 years of experience in the AEC Industry ranging from material fabrication technologies, and bespoke building envelopes to Large scale mixed-use Building projects in APAC, EU, and the USA. He has been involved as part of the Design and BIM teams for key Projects in Singapore like Jewel Changi Airport, SJ Campus, Northpoint City, Paya Lebar Quartier. He holds a Master's degree in architectural engineering and Digital design from TU Delft, the Netherlands**



**John Rivas**

John is a Solution Engineer for Architecture Engineering and Construction division in Autodesk. Prior to joining Autodesk back in 2014, John has held various roles in engineering, IT & technical sales. John focuses now in educating the value of BIM to Autodesk customers in APAC region. He is a computational BIM specialist and a python enthusiast.



**June Choo**  
Technical Director at Otte International Pte Ltd

Professional Engineer (Civil), Registered in Singapore. Specialties: Civil & Structural. Numerical Modeling with CSI:SAP2000, ETABS & SAFE; GEO-SLOPE: GeoStudio 2007; Geocentrix: ReWaRD & Repute. Performance Based Nonlinear Dynamic Analysis of Building Structures.