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Dynamo: Structural Engineers' New Personal Assistant

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Learning Objectives

- Discover repetitive tasks in daily structural engineering workflows that can be assisted by Dynamo
- Learn how to convert engineering codes standards to Dynamo scripts
- Learn about best practices to create Dynamo scripts for engineering calculation
- Discover methods to convince users and increase transparency of the black-box nature of Dynamo player

Description

Everyday structural engineering workflows have repetitive tasks and data interoperability issues that can be resolved with a more parametric approach. Structural engineers and BIM designers can benefit by using Dynamo to develop custom tools to assist them to exchange data between internal and external software platforms, perform engineering calculations, optimize, and generate drawings. But then the question is how can engineers trust the calculations done by a custom Dynamo tool developed by another engineer? This class will demonstrate and discuss how we can make Dynamo assist engineers by presenting both basic and complex workflow examples. Further, the class will discuss some good practices and suggestions to convince your boss and your team to use Dynamo and cover how to get past the "black box" problem.

Speaker(s)

Achintya Bhat
Achintya Bhat is a computational designer at Stantec who works within the Innovative Technology Development team. She has a background in engineering and master's in Project and Construction Management from the University of British Columbia. Achintya specializes in using Business Intelligence(BI) tools, and visual scripting tools like Dynamo to automate workflows for architects, engineers and project managers. Recently, building upon her engineering background, she has been working towards increasing the efficiency in structural engineering by using visual programming and algorithmic thinking to automate structural design calculations. Achintya strives to advance data-driven design across AEC with automation of profession's mundane chores to allow more time for creativity.

Soojung Kim
Soo is a BIM manager in Stantec based out of Edmonton office. She has Masters degree in Project and Construction management in Civil engineering and Bachelor's degree in Architectural Engineering. She has worked for a general contractor as a construction manager on residential and commercial projects and also worked for a provincial government department introducing BIM to their workflow. With her background, she's currently working for engineers and architects, being involved in multiple projects as a BIM manager including healthcare, school, commercial, and residential projects. She also supports the engineers, architects and technologists by developing BIM resources, Dynamo scripts, training employees, and solving daily problems. She highly focuses on improving workflow efficiency, computational design, and data quality control.

The Handout will be made available after the session here:
https://drive.google.com/drive/folders/1jzdH3GT-KQym3PzaqUf6vU9Q4T5kfQzo?usp=sharing