



Mechanical & Industrial Engineering  
UNIVERSITY OF TORONTO

# Thesis Projects (MIE498 H/Y) 2018–2019

**Title/Topic:** The “Google Docs” of CAD? Fully synchronous collaboration in design

**Description:**

Recent advances in cloud computing infrastructure have enabled the CAD industry to develop fully-synchronous collaborative CAD. Synchronous CAD is unique in that it allows multiple users to manipulate the same CAD file at the same time and saves any changes in real time, much like a “Google docs” document. The use of fully- synchronous tools is touted to be the next leap in CAD development and yet its effect on design process is largely unexplored.

The aim of this project is to better understand the dynamics at play during fully- synchronous collaborative design, and how this design tool might compare to design using traditional single-user CAD software. We seek to establish best practices, and tools for improved quality, speed and innovation of design. The undergrad thesis student will join our team and work closely with a visiting PhD student from MIT.

**Applicant assets:** positive teamwork abilities, independent and creative thinker, CAD experience, statistics and data analysis, design of experiments.

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