MIE498H1: Research Thesis 2025-2026

Supervisor	Alison Olechowski / Elisa Kwon
Supervisor email	olechowski@mie.utoronto.ca and elisa.kwon@utoronto.ca
Number of Positions	1-2
Open to	Mechanical and Industrial Engineering Students
Term Offered	Full-year
Research Area	Mechanics & Design
Research Topic	Human-AI collaboration in early-stage engineering design

Project Description

We are seeking 1-2 motivated students to join our research team. In this project, we will explore the impact of generative AI (e.g., LLMs, text-to-image models, etc.) on conceptual design processes in computer-aided design. We aim to conduct human subject studies to gain insight into designer behavior related to how generative AI inspires and influences designers during concept generation.

Additional Information	Desired experience: Human subjects research, statistical analysis/modeling, UI development for data collection, experience with LLMs or other machine learning models. Candidates will be hardworking critical thinkers who are self-motivated and have great communication skills.
Application Instructions	To apply, please describe your interest in the project and send your unofficial transcript and CV/resume to Prof. Alison Olechowski (olechowski@mie.utoronto.ca) and Dr. Elisa Kwon (elisa.kwon@utoronto.ca).

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