MIE498H1: Research Thesis 2024-2025

Supervisor	Birsen Donmez
Supervisor email	donmez@mie.utoronto.ca
Number of Positions	2
Open to	Undergraduate Mechanical and Industrial Engineering Students
Term Offered	Full-Year (Y)
Research Area	Human Factors
Research Topic	Driver interaction with driving automation systems

Project Description

Advanced driver assistance systems (ADAS) that can control the vehicles longitudinally and laterally have been implemented with the hope of improving driving comfort and safety. This project aims to understand and improve driver's interactions with ADAS to facilitate these benefits. The students will clean data collected through a driving simulator and eye tracker and analyze drivers' takeover performance, distraction intention, visual scanning, cognitive workload, etc.

Additional Information	Desired student skills: • Interest in driver-ADAS teaming research • Resilience and capability working with large amounts of data • Stats and data analysis knowledge, and tools to conduct statistical analysis and/or advanced modelling (preferred) • Detail-oriented, well-organized • Driving skills (preferred) • Good communication and academic writing skills (preferred)
Application Instructions	Please submit CV, unofficial transcript, and a paragraph describing your qualification and interest to Prof. Birsen Donmez (donmez@mie.utoronto.ca) and Mark Wei (mwei@mie.utoronto.ca)

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