

---

# Risk of Automated Driving: Implications on Safety Acceptability and Productivity

Vinayak Dixit<sup>\*1</sup>, Zhitao Xiong<sup>\*1</sup>, Sisi Jian<sup>\*1</sup>, and Neeraj Saxena<sup>\*1</sup>

<sup>1</sup>School of Civil and Environmental Engineering (UNSW) – School of Civil and Environmental Engineering University of New South Wales Sydney 2052, Australia

## Abstract

This research explores the impact of risk attitudes, risk perceptions and demographics on safety, acceptability and productivity in automated vehicles. Safety is measured by the reaction times to take control of the vehicle in the event of an automation failure. Acceptability is measured as the time taken to first engage the automated driving system. Finally, Productivity is measured by the amount of work undertaken during the automated driving. We found that risk attitudes, perception and age has a significant impact on these. In particular, risk attitudes of those who believe they "don't know" the safety impact of automated vehicles had an impact on reaction times and productivity. We believe these findings will help provide guidance to insurance agencies, licensing, vehicle design, and policies around automated vehicles.

---

<sup>\*</sup>Speaker