

SEMINAR

Xiaomeng LI

from CARRS-Q (QUT – Brisbane)

24 June 2024 – 10:00 to 11:30

University Gustave Eiffel, Building Bienvenüe
14-20 Boulevard Newton, 77420 Champs-sur-Marne
room B15

Also you can attend this seminar via Zoom:

Link Zoom: <https://univ-eiffel.zoom.us/j/87986579442> , Password: ICCAM2024

The advent of Automated Vehicles: Are drivers and vulnerable road users ready?

Abstract: Automated Vehicles (AVs) are developing rapidly worldwide with the promise to improve road safety and reduce congestion and emissions. Despite the promised benefits, their introduction to roads confronts many challenges, including the change of a driver's role and the public readiness to share roads with them. The first part of the presentation focuses on the human factor challenges in semi-automated vehicles in which human drivers may still be required to take over control whenever needed. Our research proposed an innovative application of using a head-up-display for AV drivers to engage in non-driving-related tasks and facilitate their attention management and take-over control from the vehicle. The second part of the presentation focuses on the external road users' (e.g. pedestrians, cyclists and traditional drivers) perception of AVs when they interact on roads. The road users' current behaviours on the road, their risk profile and their attitudes toward AVs will help understand and predict the future interaction patterns when they interact with AVs.

Biography

Xiaomeng Li is a Senior Research Fellow at the Centre for Accident Research and Road Safety-Queensland (CARRS-Q) at the Queensland University of Technology (QUT) in Brisbane, Australia.

Dr Li was awarded her PhD in Traffic and Transportation Planning and Management at Beijing Jiaotong University in 2017 and joined CARRS-Q as a post-doc Research Fellow since then. Her research interests include road safety, human factors, Automated Vehicles and Human-Machine-Interaction/Interface.

Dr Li has extensive experience in experimental design using driving simulators, virtual reality setup, eye-tracking and physiological data acquisition systems as critical research tools for driving performance assessment.

Her previous research mostly focused on risky driving behaviours (e.g. driver distraction), adverse driving environments (e.g., foggy weather, inappropriate road design) and pre-crash behavioural pattern analysis.

In recent years, she has conducted several projects addressing human factor issues related to the use of Automated Vehicles through both simulator experiments and field observations. Level crossing safety and interventions to raise road users' awareness of the approaching trains have been another focus of her research recently. Dr Li has over 70 publications to date in the field of transportation, with a Google Scholar h-index of 20.

Dr Li is currently supervising/has supervised 9 PhD students (5 as the principal supervisor). Two of her students have completed their final thesis defence seminar, with titles below:

- Xiaoyuan Zhao. 2023. Assessing Pedestrian Decision Making in the Presence of Automated Vehicles. (Associate supervisor)
- Sandra Cuentas-Hernandez. 2023. Contextual Determinants of Mobile Phone Use while Driving. (Principal supervisor)

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