Ajjima Soathong, PhD Candidate, The University of Auckland, asoa236@aucklanduni.ac.nz

Douglas Wilson, Senior Lecturer, The University of Auckland, dj.wilson@auckland.ac.nz

Subeh Chowdhury, Senior Lecturer, The University of Auckland, s.chowdhury@auckland.ac.nz

Prakash Ranjitkar, Senior Lecturer, The University of Auckland, p.ranjitkar@auckland.ac.nz

# Pedestrian Route Choice at Road Crossings

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| Walking is a cost effective, healthy, and environmentally friendly mode of transport. The large majority of transport journeys have walking as a key component from origin to destination, but it is often less prioritized or planned in the vehicular-dominant urban road system. An increased exposure of pedestrian crash risk also occurs at road crossings. Globally, pedestrians account for 22% of all road deaths (WHO, 2015). In New Zealand, this group makes up for 8% of all road crashes, and 89% of these crashes occur at mid-block sections (CAS 2012-2016).  Currently, NZ policies emphasize the protection of pedestrians as the most vulnerable road users through the standard design guideline, including the criteria on where to install pedestrian facilities. However, an effort to improve pedestrian safety is hampered by a lack of understanding of pedestrian crossing behaviour. Few studies investigate pedestrians’ route choices at road crossings particularly within the vicinity of bus stops. It is evident that the likelihood of crashes increases if appropriate pedestrian facilities do not exist. Crossings at unmarked mid-block sections close to bus stops to avoid missing transit connections is seen to be relatively common, despite the provision of signalized crossings nearby. Intentions to cross is often a trade-off between the risk and benefits of saving time or reducing walking distance. A case study is conducted in Auckland CBD to examine pedestrian movements at road crossings nearby to bus stops in an urban environment. The specific objectives of this paper are to investigate pedestrian trajectories to determine pedestrians’ desire lines and to compare repetitive pedestrian tracks between unmarked mid-block and signalized crossings using video recording. The result is expected to provide transport authorities with increased understanding to enable more effective and safe pedestrian facilities and countermeasures to improve the safety of all road users.  |