

STUDY OF ACCIDENTS AT MID-BLOCK PEDESTRIAN CROSSINGS IN SRI LANKA

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Declaration of the candidate and supervisor

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other university or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

Pedestrian involved accidents in Sri Lanka in the last four years from 2010 to 2013 vary between 17% and 21%. Among these pedestrian involved accidents, 17.9%, 15.2%, 17.9% and 18.2% accidents have been occurred on pedestrian crossing in years 2010, 2011, 2012 and 2013 respectively. Out of the accidents occurred on pedestrian crossings, mid-block pedestrian crossing accidents are 81.9%, 79.6%, 81.2% and 77.1% for the period 2010-2013. Thus, mid-block pedestrian crossings have contributed to more than 75% of the pedestrian crossing accidents. Hence, this study focus on identifying factors that have contributed to the higher percentage of pedestrian crossing related accidents at mid – block pedestrian crossings. The method used to evaluate this is quantitative, which analyses mid-block pedestrian crossing accidents for 400 kilometres off our main trunk roads (A03, A12, A09 and A20) and personal interviews of 100 drivers and pedestrians.

At present 40% of the ‘A’ Class roads in Sri Lanka have standard two lane asphalted pavements. Maximum allowed speed in these roads is 70 km/h. Speed control mechanisms are not strictly followed in Sri Lanka compared to developed countries. Thus, 70% of the interviewed drivers have accepted that they have driven over the speed limit during the trip for which they were interviewed. Drivers admit that they face difficulties to control speed at pedestrian crossing especially at mid-block sections unless proper prior warning is received.

Survey revealed that 100% of the pedestrian crossing constructions are not designed for handicapped people and 65% do not have proper studs and material. Based on interviewed data, 50% of the drivers and 45% of pedestrians do not use pedestrian crossing in the appropriate manner. Due to the Head and Dim light illumination of vehicles, visibility of a pedestrian crossing is affected. Some of the vehicles such as three wheelers head light brightness is higher than that of other vehicles. This also affects the visibility of a pedestrian crossing. Along these road stretches, 10% sign boards have been found to be not at the proper location. Visibility of these signboards is affected by obstacles such as trees and poles. Crossing visibility is affected by sag, crest and super elevation at of the 15% pedestrian crossings. It is observed through night time field observation that at white colour road markings visibility is higher at night than the yellow colour markings used for pedestrian markings.

The results indicate that mid-block pedestrian crossings accidents are mainly influenced by combination of design of road and vehicles and factors affecting visibility of pedestrian crossings. Further, attitude of pedestrian and drivers has also contributed towards high numbers to a certain extent.

Keywords

Accidents, pedestrians, mid-block crossings, road safety

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