

# **An Observation Study on Un-signalized Marked Midblock Crossings in Colombo Suburban**

Jathurshan Thevarajan<sup>1</sup>, Niranga Amarasingha<sup>2</sup>

## **Abstract**

A pedestrian crossing is a place designated for pedestrians to cross a road where they can cross safely across the flow of vehicular traffic. It also makes the pedestrians easy to be spotted by motorists, by keeping them together, and Mid-block pedestrian crossings are marked crosswalks placed between intersections. Before crossing, pedestrians check the traffic in right side, left side, then again, the right side. Drivers must slow down and stop when a pedestrian steps onto a marked crossing, giving way to him/her. Crossings with poor visibility have zigzag white lines marked in the middle of the road to warn drivers. The aim of this study is to investigate the pedestrian road crossing behaviour at uncontrolled midblock locations in Sri Lanka which operate under a mixed traffic condition.

It was identified that all the unsignalized midblock crossings from Malabe to Kaduwela in B263 roadway of Sri Lanka operate under a mixed different traffic flow. The data on the gender and approximate age of the pedestrian, crossing pattern, mobile phone usage of pedestrians while crossing, the fact whether a weight is carried or not, and the crossing's geometry, were collected. All these data were collected from Malabe end towards Kaduwela end, using a video survey method, covering all the pedestrian crossings. Each and every video footage was recorded during 8:00 am to 9:00 am in weekdays during the months of July and August, 2017. Each and every characteristic of crossing and pedestrians were compared using the statistical inference theory.

The overall average waiting time at the road segment considered was 6.54 seconds. When investing the waiting time by age category, it was observed that waiting time of children is lower than other categories. Elders opposing to children had more waiting time than others. This showed that middle aged people were paying more attention when crossing the road than children or elderly people. Therefore, children need to be given more attention. Most people were willing to cross the road as groups. It may be due to safety reasons. When considering the crossing speed, results showed that crossing speed of children was higher than that of adults. Statistically significant speed differences between males and females were also observed. When a person individually crossed the road, the crossing speed was higher than when crossing as a pair or a group. Straight crosswalks are designed to minimize the pedestrians' crossing distance and pedestrians are expected to walk straight. However, about 48% of pedestrians did not walk straight on the crossing.

This study revealed pedestrian characteristics and differences between pedestrian groups at the uncontrolled midblock locations in Colombo suburban. The results of this study can be used for traffic safety improvement programs. For an example, advanced warning messages and higher sight distance could be suggested in the crosswalks where more children are expected, as children did not pay much attention in crossings. Awareness and education programs could be prepared, encouraging pedestrians to walk straight when crossing as 48% did not walk straight.

**Keywords:** Pedestrian, Mid-block pedestrian crossing

---

1. Research Student, Department of Civil Engineering, Sri Lanka Institute of Information Technology, [jathurshan2012@gmail.com](mailto:jathurshan2012@gmail.com)

2. Senior Lecturer, Department of Civil Engineering, Sri Lanka Institute of Information Technology, New Kandy Road, Malabe, Sri Lanka, [niranga.a@sliit.lk](mailto:niranga.a@sliit.lk)