

UNIVERSITI TEKNOLOGI MARA

**PEDESTRIAN SPEED
CHARACTERISTIC AT STAIRCASE
IN RAIL TRANSIT TERMINAL**

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ABSTRACT

In Approaching Malaysia's Vision of 2020, Kuala Lumpur is eager on constructing a better public transportation system for passenger's convenience and widening the reachable for public transportation especially the public train system. A proper understanding of pedestrian movement becomes important in transportation policies in order to achieve satisfaction of pedestrian while using public transportations together with increasing the usage of public transportation by citizens. Therefore, the environmental problem of private transportation can be reduced. This study was focused on walking speeds of pedestrians at a staircase in rail terminal according to gender, age and loading condition by collecting data during peak hour and non-peak hour. Data analysis was completed by using the Semi-Automatic Video Analyze (SAVA). To use SAVA, video of pedestrian behavior has to be recorded, thus Masjid Jamek LRT Station was chosen as the spot of recording. Real data analysis obtained from SAVA will be validated through the statistical data by using Statistical Package for the Social Science (SPSS) software. The results on the route of choices and walking speeds were previously various within gender, loading capacity and also peak and non-peak hour consideration. While in this research, gender and peak hour again become the factors that affect Malaysian's walking speeds when using a staircase. Interestingly, the attire worn has also become another factor in this case study. However, it is also found that loading capacity was not a factor that influences Malaysians speed while using a staircase.

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CHAPTER ONE

INTRODUCTION

1.1 GENERAL

Walking is usually considered as a transportation mode where it is the most effective and efficient mode of transportation in order to reach a short destination directly or after using other modes of transportation. Walking is the traditional mode of movement between places, irrespective of cities and countries. People walk with different purposes and in large numbers especially in developing countries (Wittink R., 2001).

Today, there are a lot of large urban space and complicated architectural have been built around the world. In general, within the last 40 years, a wide variety of tools aimed and sophisticated methods in understanding urban mobility. However, only a few of them were designed to deal with pedestrian movement (Arnaud et al., 2012). Eleonara et al. (2013) concluded that, pedestrian behavior is better to understand if knowledge about pedestrian behavior, perceptions and behaviors are discovered and learned. Besides, it is important to improve pedestrian safety. There are many pedestrian patterns that we can see, such as walking speed, pedestrian attitudes, perceptions, behavior, injuries and others.

Walking is our most basic form of transportation. Every trip we make, even by car, we begin and end as pedestrians. In case of mass transit to be effective, passengers must be able to walk between transit stops and multiple destinations of interest. Many people do not have access to automobiles or even bicycles, and must walk to reach important destinations. Walking can also be a pleasant way to exercise, relax, and socially interact with others in the community. The safety and convenience of pedestrian travel are an important factor in our quality of life (Arnaud et al., 2012).

In the mechanized world nowadays, intermodal transportation and short trips in cities depend on the how important movement, walking, which is impossible to duplicate. In addition, the constantly growing urban population, urbanization and air pollution, along with the constraints on the percentage increase of vehicles on the road, have served to commercialize the natural mode of transportation. In least