### CHAPTER 1

#### INTRODUCTION

### 1.1 Introduction

Transportation is integral to developed societies. It is responsible for personal mobility which includes access to services, goods, and leisure. Transportation is very important for the human to move from one place to another place daily.

There are two methods of transport that people oftenly used in their daily life either to use public or private transport. The choice of public transport includes trains, buses, coaches, aeroplanes, tubes and trams. Private transport forms can include car, bicycle, motorcycle or scooter. The type that we choose to use will depend on the purpose for travelling, length of the journey and anyone you may be travelling with. Car is the most popular type of transport, most people use cars daily for short and long journeys. The numbers of cyclist for bicycles are fast increasing as it is cheap and environmentally friendly method of transport. Besides, buses and trains are the most popular method of public transport especially in urban areas. Aeroplanes and boats are the type of transport which usually used for the journey across the sea. (Wikipedia n. d)

These type of vehicles have different growth depend on the places. For example it may be different vehicle growth in university campus compare to vehicle growth in town or cities.

## 1.2 Background

Based on the evaluation of sustainability of traffic growth in Malaysia by Akmal, Zaly & Othman (2015) most of the cities in Malaysia have witnessed significant population and economic growth over the past two decades which are increase in the number of registered vehicles. The traffic growth in Malaysia shows an increases in the private cars motorcycles, while the rate of increase for buses is very small. The passenger of cars and motorcycles are increasing while the passengers of buses is slightly dropping down, which is a negative indication regarding the traffic growth in Malaysia. Most of the trends indicate that the current growth trends of traffic in Malaysia are unsustainable. However, for this growth to be sustainable, it has to show a higher rate of growth for public transportation modes when compared to private transportation modes (mainly passenger cars and motorcycles).

Based on the Undergraduate Prospectus (2010/2011), Universiti Malaysia Pahang provides hostel for most of the students from the first year to the final year students. However, two of the hostels are situated far from the academic buildings and other facilities around the campus. They had to walk more than 1 km daily due to far distance from student hostels to lecture buildings and other facilities around the campus. They also need to face unpredictable weather conditions. The hectic daily schedule made the students have to walk back and forth to different block for the entire day. Since then, the growth of the vehicles like cars, bicycles, motorcycles and buses become increase as it would be easier for the student to attend the class or to go anywhere in the university.

### **1.3 Problem Statement**

Malaysia has witnessed a huge rise in the demand for transport vehicles in recent decades in conjunction with its rapid economic growth. For the past decades vehicle ownership has increased tremendously in Malaysia which is partly due to the economic growth, rapid urban development, population growth. (Noresah, 2012) Universiti Malaysia Pahang is well known for its facilities provided for the students. Universiti Malaysia Pahang provides hostel for most of the students from the first year to the final year students. Two of the residence complexes in Gambang Campus are situated far from the academic buildings and other facilities around the campus which about one kilometre distance and for Pekan Campus most of the residence complexes also situated far from the academic buildings which about 15 minutes walk from the residence complexes. A part from that number of intake students from year to year is increasing (UMP Official Web, 2016). Both issue will lead to vehicle growth trends in

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the Universiti Malaysia Pahang in both campuses. In need of that, Universiti Malaysia Pahang should provide and upgrade the facilities which are currently in sufficient.

# 1.4 Objectives of Study

The objectives of this study are:

- To determine trends of vehicle registration and types of mostly used vehicle within Universiti Malaysia Pahang Gambang and Pekan Campus.
- To identify the vehicle circulation within Universiti Malaysia Pahang Gambang and Pekan Campus.
- To evaluate the supply and demand for parking within Gambang Campus

## 1.5 Scope of Study

Scopes of this study include the following procedures:

The study will focusing at Universiti Malaysia Pahang Gambang and Pekan Campus

- Collection of information from students and staff in Gambang and Pekan campus only
  - Data collection will be done based on record of vehicle registration from "Bahagian Keselamatan" Universiti Malaysia Pahang Gambang and Pekan Campus.
  - Data collection by volume counting at entrance points by type ( car, motorcycle, bus and truck)
  - Data collection on capacity of parkingfor supply and demand in Gambang Campus