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SMART PARKING SYSTEM: AWARENESS AND PROBLEMS AMONG SHOPPING MALL'S CUSTOMERS

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ABSTRACT

The issues of insufficient parking are getting worse when the numbers of vehicles keep increasing day by day. Therefore, there are mobile applications such as Smart Parking System (SPS) that are implemented to assist the vehicle owners to get the parking space. SPS give benefits to the users as it can reserve the parking in advance through the mobile apps before they reach the destination. Although there are many benefits of SPS, but not many users are aware of the system. Thus, the aim of this research is to increase the awareness on SPS and the objectives are to determine the level of awareness on SPS, to identify the problems in using SPS and to recommend the methods to improve the usage of SPS in shopping malls. Questionnaire surveys were conducted among 300 customers in the IOI City Mall, Setia Walk Mall and DC Mall in Selangor and the data were analysed by using SPS version 21.0. The findings show that only 50% of respondents aware and another 50% are unaware of SPS. On the other hand, it is found that they have problems in term of price and payment and also mobile network. It is recommended that by improving the SPS policy, parking price and payment, increase number reserved parking, charged with the fined, implement License Plate Recognition (LPR) and provide password or RFID tags, will help to improve the usage of SPS.

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1.0 INTRODUCTION

Transportation is very important in people's lives and it is impossible to avoid a significant role of motorcar in our daily activities. Despite their personal need for vehicles, some people are not aware of the vehicle population's overall growth rate (Baitalmal, 2015). According to the statistic from the Malaysian Automotive Association (refer to table 1.1), the numbers of the motor vehicle keep increase annually. Parking demand is also increasing in proportion to the increased use of vehicle.

Due to many people spend most of their time in their car, travel daily to work, go to the shopping mall at the city centre, these lead to problems of insufficient parking (Hilmani, Maizate and Hassouni, 2018). Therefore, the parking space is not enough and not efficient and these lead to the development of parking services such as the implementation of SPS for simply search for a parking space and avoid unnecessary driving around the city center. SPS are systems that manage the difficulty of public or private parking in the city using a number of modern technologies, including WSNs (wireless sensor networks) and RFID (radio frequency identification) as stated by Kalantary and Taghipour, (2014).