UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

MODELLING TOLL PLAZA BEHAVIOUR BASED ON SIMULATION MODEL

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TABLE OF CONTENTS

ABSTRACT

Queuing theory is known as waiting lines is an essential element of services and an effective mechanism for the manager who is in operating line. Queuing model is a widely used in the area of operation research in management as well as mathematics. The system that works the best for the related situation and it will help to minimize the customer waiting time in getting any services. Definition for simulation is the imitation of a situation or process and it also defined as the production of a computer model of something, especially for the purpose of study. The purpose of simulation is to gain insight into the operation of a system, developing operating or resource policies to improve system performance, to test new concepts or systems before the implementation begins and to gain information without disturbing the actual system. Services on toll plaza also should be efficient enough to achieve the goals of highway. In order to gain better understanding about queuing mathematical model in toll plaza, the idea must be proposed as it will help on reducing the waiting time of vehicles waiting for services. The objectives of this study are to develop a simulation model to represent the system at the Seremban - Port Dickson toll plaza and also to determine the average waiting time of cars spend at toll plaza using Arena Software.