UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

OPTIMIZING WAITING TIME AT KTM SYSTEM USING SIMULATION AND QUEUING SYSTEM

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IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

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ABSTRACT

Keretapi Tanah Melayu (KTM) is one of the public transports that people usually used in their routine life because it can save maximum travel cost and also provides plenty of time space to facilitate passengers in managing their journey and fulfilling passengers' needs. During peak hour, the problem faced by KTM is waiting time of passenger at counter, ticket machine and check in counter is much longer than usual time. The objective is to find the average waiting time of passengers at the KTM system using ARENA Simulation model, to develop simulation model to represent service system at KTM and to enhance the current model that use at KTM Seremban. This study will use primary data collection of queuing system and simulation process which will become the procedure of data collection. There are many characteristics and mathematical equation to be used in this study, which is a single-channel model to be built using the characteristics of the queuing system.