MODELING OF TRAFFIC MOVEMENTS IN SEBERANG PERAI UTARA, PENANG, MALAYSIA USING OmniTRANS

By

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DECLARATION BY THE CANDIDATE

I am Muhamad Fairul Bin Samsudin, UiTM no.2002611712 declared that this thesis is the result of my own work, except the ideas and summaries which I have clarified their sources. The appropriate credit has been given where reference has been made to the work of others. The work has not been accepted for any degree and is not currently submitted in candidature of any degree.

Signed: .....
Date: .....

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ABSTRACT

Transportation planning uses the term 'models' broadly. This term is used to refer to a series of mathematical equations that are used to represent how choices are made when people travel. Travel demand occurs as a result of thousands of individual travelers making individual decisions on how, where and when to travel. Models require a series of assumptions in order to work and are limited by the data available to make forecasts. This research focuses on analyzing OmniTRANS to model the traffic movement. Based in area Seberang Perai Utara, Penang, the traffic movement is simulated according to the historical data, pre-2004 road system and compares the results with the published data, to determine which methodology better replicated actual volume. Then, result from the analysis is used to forecast near-future traffic in 2010. Finally, comparison between both simulations of traffic movement was made to identify the changes of traffic flow in the study area.

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