

Thesis Title	Study and Modeling of Traffic Noise of Motorway (Bangkok-Chonburi)
Thesis Credits	12
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Abstract

This project was to study the characteristics and develop mathematical simulation model of the uninterrupted flow conditions of traffic noise on the motorway from Bangkok to Chonburi. Data collection consisted of the equivalent sound pressure level (L_{eq}) in dBA of traffic noise, traffic volume and traffic combination, average spot speed and geometric dimension of motorway sections. Traffic noise, traffic volume and spot speed were collected in simultaneous basis for 1 hour period. Traffic noise data was also included the equivalent sound pressure level in the period of 10 seconds (L_{eq} 10 sec) of each group of vehicles that used for the reference energy mean emission level. This collected data was then used to generate the mathematical model for the prediction of traffic noise level of motorway and similar highway in Thailand. The prediction of mathematical model was then tested with field measurement by using statistical methods and compared to the prediction of the U.S.'s FHWA model.

Keywords : Motorway Traffic Noise Model / Uninterrupted Flow Traffic Noise / Free Flow Traffic Noise / Traffic Noise Prediction