

Abstract

This research is part of an effort to help alleviate traffic congestion in Bangkok by proposing a method for estimating travel times from the available road traffic congestion data provided by “Intelligent Traffic Signs”. Congestion data from the Traffic Signs on selected road segments in downtown Bangkok area were field-collected. Actual travel time on the same road segments were collected using GPS. The two data sets were then used to build an estimation model using Linear Regression Analysis (LRA) method and Artificial Neural Network (ANN) method. The mean absolute percentage error of estimated travel time is 27.5% with confidence interval 95% is ± 4.95 (LRA) and $23.0\% \pm 4.36$ (ANN). The results show that congestion levels have the potential to be used as data for estimating travel times.