Bus arrival time prediction with limited data set using regression models

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Copyright © 2018 by SCITEPRESS ? Science and Technology Publications, Lda. All rights reserved. The increase of population has intensified everyday rush. Traffic congestions are still a problem in cities and are one of the main cause for public transport delays. City residents and visitors have experienced time loss by using public transport buses, because of waiting at the bus stops and not knowing if the bus is delayed or already serviced the stop. Therefore it is valuable for people to know at what time the bus should arrive (or is it already missed) at specific bus stop. Real-time public bus tracking and management system development has been the focus of many researchers, and many studies have been done in this area. This paper focuses on bus travel time prediction comparison between linear regression and support vector regression models (SVR), when using limited data set. Data were limited in a way that only historical GPS (Global Positioning System) coordinates of bus location (