## Use of Travel Time Data in Transport Planning

S. P. Kumarage<sup>1</sup>, G. L. D. I. De Silva<sup>2</sup>, J. M. S. J. Bandara<sup>3</sup>

## Abstract

Urban traffic congestion is one of the most severe problems of everyday life in Metropolitan areas. In an effort to deal with this problem, intelligent transportation systems (ITS) technologies have concentrated in recent years on dealing with urban congestion. One of the most critical aspects of ITS success is the provision of accurate real-time information and short-term predictions of traffic parameters such as traffic volumes, travel speeds and occupancies.

Predicting car travel times along road segments is an increasingly important component of today's car navigation systems. Use of floating car data geospatial inference method. The main objective of the paper is to identify the use of Google travel time data in planning and management of traffic in urban road networks.

On this regard, the possibility of using Google travel time data in identifying spatio-temporal variation of travel on an urban road network was studied. Data mining for travel time data was supported by the Google distance matrix API. Use of travel time data to analyse the efficiency of utilizing traffic management plans was discussed with reference to the pilot project on implementing bus priority lanes for public buses of the Colombo metropolitan area.

Use of travel time data to analyse the efficiency of utilizing traffic management plans was discussed with reference to pilot project on implementing bus priority lanes for public buses of the Colombo metropolitan area and pilot project on reducing traffic congestion in Dehiwala MC which are two pilot projects implemented in the Colombo metropolitan area.

Keywords: Travel-time, Data-mining, Traffic planning, Floating Car Data

- Senior Lecturer, Department of Civil Engineering, University of Moratuwa, Sri Lanka, dimanthads@uom.lk
- Senior Professor, Department of Civil Engineering, University of Moratuwa, Sri Lanka, bandara@uom.lk

Research Assistant, Department of Civil Engineering, University of Moratuwa, Sri Lanka, 120322h@uom.lk