

**EVALUATION OF TRAFFIC FORECASTING
ACCURACY IN ROAD PROJECTS IN SRI LANKA**

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DECLARATION OF THE CANDIDATE AND SUPERVISOR

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Evaluation of traffic forecasting accuracy in road projects in Sri Lanka

Traffic forecasting is a significant process carried out in early stage of many transport development projects. To implement such project, it is inevitable to have benefits whilst been a feasible option. As this traffic forecast directly dealt with benefit calculations, the accuracy of forecast needs to be in high standard.

There are various method and tools to forecast traffic according to past studies. Growth factors, Trend line and Time series analysis, Traffic demand Models and Simulation models are some of them. Even though models and other methods are calibrated in the design stage, very few studies carried out to evaluate the accuracy of forecast in post construction stages.

In this research traffic forecast accuracy of some national highways and Three Expressways in Sri Lanka are evaluated. Southern Expressway, Outer Circular Expressway and Colombo-Katunayake Expressway are the three expressways and those are analyzed separately. Difference between forecast traffic and actual traffic is calculated w.r.t actual traffic and inaccuracy for each road sections was obtained. Forecasted traffic data was obtained by feasibility reports of highways and expressways which are gathered from Road Development Authority and University of Moratuwa. Actual traffic data was found from traffic counts done by University of Moratuwa and available data in RDA.

Furthermore, factors that influence mostly on forecast accuracy are discussed. In Sri Lanka the utmost reason for Over/Under estimation is difference between estimated and actual road network considered in forecast method. Change of forecast accuracy with respect to forecast method and forecast years were plotted.

Key words: Traffic forecast, Forecast accuracy, Models, Expressways

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LIST OF ABBREVIATIONS

AADT	- Annual Average Daily Traffic
RDA	- Road Development Authority
ARIMV	- Auto-Regressive Integrated Moving Average
JICA	- Japan International Cooperation Agency
STRADA	- System for Traffic Demand Analysis
DTA	- Dynamic Traffic Assignment