

**METHOD TO FILL PARTIALLY FILLED ORIGIN  
DESTINATION MATRIX IN SRI LANKAN CONTEXT**

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## DECLARATION

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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## **CERTIFICATION**

I certify herewith that L. Anuja Mendis, Index Number: 169182J of the Master of Spatial Planning Management & Design 2016/2018 Group has prepared this research project under my supervision.

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Signature of the Principal  
Supervisor

.....

Signature of the Head of the Department  
of Town & Country Planning

Date: .....

Date: .....

## **ABSTRACT**

An Origin – Destination matrix is a vital aspect in the process of traffic planning. OD matrix table shows the trip production and trip attraction of the each zones. This zones should be identified with the certain physical boundaries. These zones will be called as Traffic Analysis Zones (TAZs) in a transport network.

The values of the origin destination matrix will be obtained by the surveys of the travel data. This will be empirical surveys and real observations. Since these data were obtained by the surveys, the result of the OD matrix may close to the reality. However if the number of TAZs is high, then it is not practical to carried out the surveys to obtain the data. These surveys are very costly and time consuming. Also since it is time consuming obtained survey data will be obsolete. Therefore, developing a partly filled OD matrix is only possible in this situation.

However, we cannot use partly filled OD matrix for decision making purposes in traffic planning. Then partly filled OD matrix is not essential. Then there is an essential requirement to fill the balance unfilled cells in the OD matrix before using it to the travel demand estimation.

In Sri Lankan context, there are 331 divisional secretariats with clear physical boundaries. Therefore divisional secretariat division can be identified as one traffic analysis zone. As a result, there are 109,561 OD pairs in OD matrix for whole Sri Lanka.

There are studies in the world context to solve these types of problem. Therefore it is usable to study those techniques which are used to solve this type of issues in the world wide by various scholars.

This study to find the relevant method to develop fully filled OD matrix with using partially filled OD matrix for entire Sri Lanka.

Finally intention of this research is to fill the trip generation and trip attraction for entire traffic analysis zones (i.e. all divisional secretariats) and find entire 109,951 trip interchange values for the origin destination matrix.

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