

Thesis title:

Development of a Daily Activity Pattern Model for Individuals in Sri Lanka Using Time Use Data

Abstract:

The Transport demand models have been used widely in transport planning to identify the feasibility of Transport infrastructure and the sensitivities to the transport policies. The traditional approach has been to use a 4-step model approach which is an aggregate level modelling technique which has its limitation due to the aggregation. Over the years, activity-based modelling, which is a disaggregate modelling approach, has become popular, where an individual's daily activity pattern is modelled to understand the travel behaviour. Therefore, identifying a daily activity pattern for each individual in the study area is a prerequisite for any activity-based model. Daily activities take place in space and when the location of the activity change, a travel is generated. An activity pattern is a sequence of activities undertaken by an individual which has both geographical and temporal dimensions. A daily activity pattern of a person is identified using Time Use data and a comprehensive Time Use survey was conducted in 2017 which has socio-economic data as well as activities defined for 15-minute intervals for all 24 hours that can be used to generate daily activity patterns for individuals.