

## Development of Driving Cycle for Sri Lanka

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A driving cycle is a speed time profile which represents the driving characteristics of a selected area. This can be of use to legislative and non legislative purposes such as development of emission standard, determination of fuel consumption, etc. Established driving cycles such as European driving cycle and United States driving cycles cannot be used in Sri Lankan context as the traffic constituents, driver behaviour and road conditions vary significantly that from the conditions of those countries. Hence the objective of this research is to develop a standard driving cycle(s) which represent urban and rural conditions in Sri Lanka and to establish emission standards in future based on such cycle(s).

To achieve stated objectives, it is necessary to collect and analyse on road speed-time data on a selected route which will represent the typical driving pattern of an urban or rural condition. Due the restriction of time and resources, this study was limited to development of driving cycle for urban condition and for light duty vehicles. However, this study would facilitate further studies on this area and development of driving cycles for urban, sub urban, rural and express way conditions and this could be of great use for traffic engineering studies, road safety and sustainable development.

A sample driving cycle was developed based on the time series data collected on the Galle Road, section from Katubedda to Fort. Due to the time constraint, on board method was used to collect data using a hand held GPS device. More than 30 samples were collected in this section during different times of the day and different days of the week to represent many prevailing traffic conditions at this urban road section.

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