

**STUDY OF BEHAVIOR AND IMPACTS OF ON-STREET  
PARKING IN KANDY TOWN**

W.W.P.W.M.R.U.A.Gopallawa

158304V

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Department of Civil Engineering

University of Moratuwa  
Sri Lanka

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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 University or other 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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## **ABSTRACT**

### **Study of Behavior and Impacts of On-Street Parking in Kandy Town**

Parking considered as one of the most vital transport facilities in urban Context. The availability of parking relates with the parking location, parking price, parking regulations and parking space available.

In a city, the parking spaces are required by residents, employees, visitors. With the increase in vehicle ownership, parking is becoming a serious problem of cities, especially the historical cities which were not designed for automobiles. This creates a tremendous pressure on parking which results a greater demand on on-street parking in major arterial roads. Despite local government and regulatory bodies have introduced various initiatives with number of policies and solutions for parking in the city, the problems still exist due to inadequate understanding of the root cause of parking problem.

For this study the historical city Kandy is taken as a case study to examine the major problem of on-street parking and find out the root cause through examine the behavior, impact of the parking and the factors that influence drivers on parking.

As part of the methodology, on-street and off-street parking data together with traffic volume data were collected and analyzed to identify the connection between the on and off-street parking with the traffic volume. Further, GIS tools combining with the statistical analysis used to find the demand for two types of parking at the same time, with determine the on-street parking attraction area and average walking distance to the on-street attractive area from the off-street parking area. Results shows that motorists tend to park their vehicles on-street in the morning hours. Also, results represent that users are attractive to park on- street to reduce the walking distance to their destination without parking their vehicles in off- street car park.

Further, impact for the vehicles travel speeds due to the on-street parking were analyzed using a Google map related program which calculates the travel time in pre-assigned road segments developed by the Planning Division, Road Development Authority. The data were analyzed for three parking categories, based on the width of the road segments as narrow, medium and wide. The result shows that rise in the on-street parking cause to reduce the speed of the traffic flow and this is evident in all parking categories. This will assist policy makers to consider on-street parking as a plan of managing the speed.

The study also presents a discussion on policies of parking regulations and possible solutions for parking in the study area. The study envisaged that this would provide a more logical framework to adopt in decision making and making suitable solutions for traffic problem in similar situations.

**Keywords:** Parking, On-street parking, Off-street parking, Travel speed, Parking management

# **DEDICATION**

To my Parents and Husband

Who always support and encourage me towards the success

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U.A.Gopallawa  
158304V  
Transport Engineering Division  
Department of Civil Engineering  
University of Moratuwa

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