FLEXIBLE WORK HOURS FOR TRAFFIC MANAGEMENT IN PEAK HOURS: A CASE STUDY OF SRI JAYAWARDENAPURA KOTTE, 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 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 P.M.A Kothalawala, Index number: 169179G of the 2016/2018 batch, has carried out research for the Masters dissertation under my supervision.

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Signature of the Principal Supervisor

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Signature of the Head of the Department,
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ABSTRACTS

Traffic Congestion is one of the most intolerable problems in the most cities due to sudden increase in privacy. Transportation affects urban society, environment and the economy. Flexible Work Hour Implementation (FWH) is one of the important measures of traffic demand management (TDM) which can use to spread out the vehicle volume and traffic congestion during morning and evening peak periods. This study investigates taking different FWH measure can adjust transportation volume on road and alleviate transport stress in peak hour in Sri Jayewardenepura Kotte area. Nowadays it has seen rapid growth in transportation demand and serious road congestion in study area due to concentration of various functions and activities. Therefore, the trip features of employees in study area and transportation status are analyzed to implementing different working hour method as solution to reduce congestion. The traffic applicability of FWH in the selected case study area is analyzed through relevant statistics and social surveys. Finally evaluated the findings to find relationships among selected road segments obvious road demand and road demand after Implementing the FWH. To identified the effect of proposed TDM strategy on study area road segment at AM and PM peak periods through employment trip generations. The t-test analysis from SPSS software was used to derive the analysis outcome of prior and after implementing flexible work shifts of employees on the traffic flow . The result shows that the impact of trips generated due to the employment within the study area and proposed method shows considerable positive result in some time periods to reveal the selected links at peak hours. But synthetically the final output interpret it will as limited effect on FWH implement only in selected area to relieve total congestion on peak hour traffic in considerable level.

Keywords: Flexible working schedule, TDM, Trip generation, Trip attraction, Passenger Car Units, Level of service, Travel duration

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LIST OF ABBREVIATIONS

TDM -	Transport Demand Management
TSM-	Transport Supply Management
LOS –	Level of Service
PCU –	Passenger Car Unit
LRT -	Light Rail Transit
ITE –	Institute of Transport Engineers
TxDOT –	Texas Department of Transportation
MCC –	Manual classified Count
FTE –	Full-Time Equivalent
MNL –	Multinomial Logit Model
IIA -	Independence of Irrelevant Alternatives
AM -	Ante Meridiem
PM -	Post Meridiem
LOS –	Level of Service