

Traffic forecast and its Methods

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Abstract – The Frequency of Traffic collision in India is amongst the highest in the world . Sustainability of the Transportation System is very important for Overall Development of the city . therefore Assessment of Sustainability is Vital issue. National crime petrol bureau (NCPU) report reveals that every year more than 135000 traffic collision related dead occurs in India . At NH3 due to increase in traffic flow from Nashik to Mumbai lane addition is necessary to ease the flow of Traffic .for purpose of lane addition classified traffic volume count (CTVC) is must . CTVC is the Number of vehicle passing at the particular point on the road stretch in a Unit time . Generally traffic volume is expressed in terms of Vehicle/hr. Indian Traffic is Considered heterogenous traffic . Data of traffic count will be converted into PCU by multiplying it with PCU factor respectively vehicle. Thickness of pavement is determined by PCU's. PCU factor of the vehicle will be taken as per IRC64-1990. Average daily traffic (ADT) , percentage composition of vehicle is also be determined of the highway stretch .distance of Gonde to Vadape is 99km. This total stretch is divided into 3 parts . Classified traffic volume count is carried as per IRC102-1988. Camera is installed at the Chainage 45.5km at Ghoti toll plaza. Sensor is installed at the location for counting two wheelers and other vehicle will be captured in the video by the camera installed at the Ghoti toll plaza. The data is sorted accordingly on hourly basis. Day Night traffic is recorded with the camera and sensors. With the traffic Data thickness of Road is determined This Project Aims to convert the existing four lane NH3 to six lane.

I- INTRODUCTION

Transportation is necessary for the movement of people and goods. The productive adequacy of urban Area is Maintained when Mobility Requirement in the cities are fully met. With the advancement of cities, demand for Transportation Grows with glowing business

and deal all over the growth . Thus urban transportation plan one of the most important component of Urban development . A good Network of road and a profitable transportation system makes the extra ordinary contribution to the working Efficiency of a city . the evolution of industrial development calls for an enlargement of transportation System to procure to the increasing demand .

In India, as the growth of urbanization is taking place and travel demand with post economic growth Corresponding the vehicle ownership is increasing day by day causing dilemma like population , delay congestion at intersection and road stream growth at private vehicle like two wheeler, car lead to increase in capacity of National Highway.

According to 2015 statistical year book in india there are 46 cities with population more than one million in 2011 and out of this 8 cities have population more than 2 million . National Highway connect Mumbai and Agra through Nashik . Sizeable amount of interstate Traffic is carried by NH3 . Gonde Vadape is the section between Mumbai and nashik. Total distance from Mumbai to nashik is 158km in which the distance of the project is 99km which is divided into three parts . Gonde to igatpuri , igatpuri to shahpur and shahpur to vadape. Classified traffic volume country is conducted on these three location . one each on the homogenous section of the project corridor. Traffic forecast location for carrying traffic survey were selected after site reconnaissance. Classified traffic volume count is carried out at that location by using sensor for counting two wheeler and camera for recording video for 24 hours 7 days . Data will be sorted using excel sheet and the total of each type of vehicle is counted and multiplied with the PCU factor of the respected vehicle . If the PCU exceed 25000 six lane road is provided .

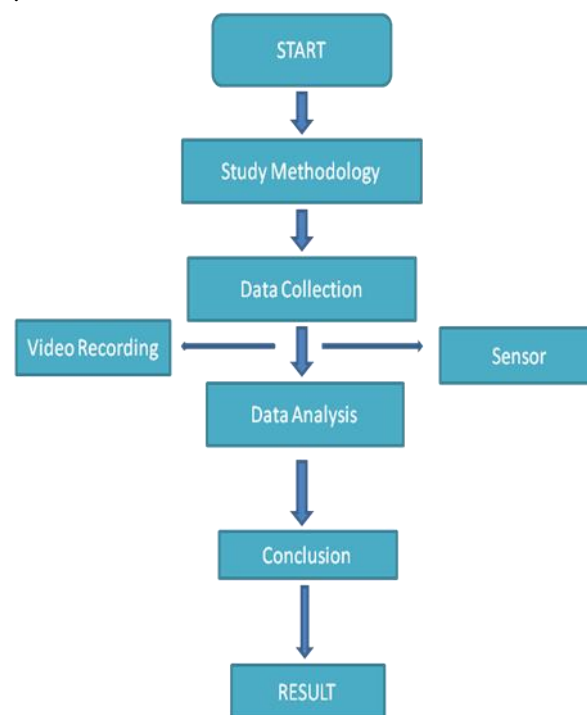
II- LITERATURE REVIEW

It is an analytic report of the information connected to the particular topic literature review offer description , summary and analysis of journal paper referred for the study. Literature review include actual finding , as well as Theoretical and Methodological explanation about particular topic .

1. Shreya pahuja : Capacity of four lane hill road was estimated by comparing the modal such as greensberg ,greenfield with micro simulation model and the result is sorted accordingly.The conclusion from the result is if the traffic moves from the straight path to curved portion capacity decreases by 15% .
2. AN Dehury et al (2013) in there work on NH55 between Angul and Bushan plant in Orissa Divided the total Stretch in Four stretches and Plotted Annual Variation of total fatal major and minor accident . Using Traffic data they use Accident Prediction Model .It shows that accident increases with increase in density of number of trees on Shoulder and Number of Curves .Road Site clearance and provision of hump near accident spot is suggested .
3. Kund and Meshram in there study at NH3 Between Indore to Dhamnod Analysed ADT , total number of accident in year 2009 , 2010 and 2011 is due to High Speed and more Traffic . the Accident Mainly occurs between 6 pm to 8 pm as more number of buses travel at that time .
4. S.Darbam Khales Find consider the mean of sustainable Development then it explain the role Transportation in Three section Society , Enviroment and Economy . At the end it evalutes the strategies such as advertising , Public transportation , demand management , improving road management ,Vehicle technologies Improving and transportation planning for sustainable transport .
5. Dr Ashish verma (2013) described the sustainable transportation system for the Indian cities , in this article author described the problem in existing transportation system in india then by taking key factor of sustainable transportation author proposed some methodology of sustainable transportation system for Indian scenario. Author proposed parameter like public transit ,mobility management ,residential development ,parking system and transportation management .

III- METHODOLOGY

Given below is the methodology of the process involved



IV- CONCLUSIONS

1. On NH3 due to increase in the traffic Volume the increased of Lane of Existing NH.
2. Average Daily Traffic Count and Peak hour of the selected Highway stretch.
3. Able to find the Percentage of Vehicle composition.
4. The Difference between Manual Counting Vs Automatic Sensor Counting and its tolerance.
5. we will able to suggest the client for the mode of Tender (eg – BOT , EPC, HAM etc)

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