

# SOLUTION FOR ACCIDENT PRONE AND ROAD CONGESTION

## LOCATION IN AMRAVATI CITY

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**Abstract** - It would be expected that the hottest region of viharbha which is situated in the middle of eastern boundary side having densely populated states. It is to be considering as a noisy and crowded polluted city. This city which is located and connectivity is more to the villages. The road is highly connected by using various transportation systems with the rapid growth of the population the vehicular population is increases day- by -day. Due to that it results in traffic congestion. The main is to improve the traffic congestion that is to study and to solve the traffic congestion problem.

There are various networks to perform and to determine the solution various junction that is T-junction. It is very difficult to handle and to handle and to solve complexity of the traffic solution. To detection and analysis of traffic congestion is important. It is very rare to smoothen down the traffic by using the performance of traffic police. Through the various square the traffic control can be done by using the signals. Due to highly overweight of the vehicular the traffic congestion is to be occurred. The congestion is occurred due to the crucial and the performance of the vehicles. There is various intersection which is occurred due to the road patterns. Due to the flow of the vehicles the cities gets migrates from one places to other. The other reasons of migration that is the flow of vehicles due to the economical activities. The accident is also one of the main and important reasons for the traffic congestion.

The priority is depending on the length of the road, width of the road, S.S.D etc .Other factors that is speed of the vehicles. The conflicts are occurred of the vehicles due to intersection. Traffic congestion is waste of time, waste of fuel and also causes the air pollution. As rapidly increases growth of vehicles it is delay of speed, time travel to reach at same time. Due to the improper alignments of the roads and the road condition the vehicles is unable to get the safe side distance. There are various points where the people doing overtaking of the vehicles is unable this is also reason of traffic congestion. As per the guidelines of Indian Road Congress it is to be followed for the various construction of road. The insufficient and inefficient public transportation, low -price parking policies the traffic may get affected. The traffic volume is to calculate as per the peak hours .The vehicles is running from one point to other point it is calculated during peak hours at morning and evening. The

counting is to be calculated. This counting of data is to calculate to be used for future generation for the 20 th year increasing roads. The urban city is getting destroyed and the rural country is to be calculated and collected easier. There is a very less combined and the limited supply of services.

An Amravati lies on NH-6, which is one of the country where over all development is going on. The encroachment of roads and lanes, inadequate traffic management etc exaggerated to contribution level of automobile exhausted the pollution.

Major problem of Amravati city is delays in time and congestion due to longest queues during signal. Due to the increase in land width and the pedestrians is to be removed and solving is to be carried out. The separated parking for autorickshaws is to be provided. The number of grade separators has to be constructed and being constructed for the located in the developed part of the city and causing a tigger of congestion at adjacent junction.

**Key Words:** Road Intersection, Traffic Volume Study , Road safety , Satellite Images .

### 1. INTRODUCTION

Most of the area which is situated in the Amravati region which is densely populated. Due to the rapid growth in the urbanization .The shifting of the vehicles in carried out. The urban congestion which is broadly divided into excession of the urban and rural economics. As day-by-day the parking policies is not proper. With the increasing liability the mixed traffic is occurred. The street parking which is on the road it is to be transferred on the separated parking is to be provided. The sight distance is to be kept as far as possible.

There are various types of reasons they are as follows:-

- 1) Improper poor driving of the vehicles.
- 2) Lack of the connectivity between the modes of the transports.
- 3) With the less number of transport planning in the systems.
- 4) There is the not providing the intelligent transportation systems.
- 5) In the urban and rural cities there is a centre of theatures, galleries, shops, restaurants etc, the traffic is also placed on the road it is to be kept in a proper way or manner.
- 6) Due to the new infrastructure alone it will not solve the problem of road congestion.

With the town planning the separated area is to be provided. This project is based on the Amravati cities. Some places have been selected through Amravati city that is Rajapeth, Sainagar, Navathenagar. These three places is a network on which the road is connected. The road which is connected to the Badnera as well as Rajapeth is connected which is future attached to the straight forward connected by the Nagpur Road. The locally the signals and highly vehicular road is Rajkamal, Rajapeth, Panchavati, Sainagar. This junction is attracts a lot of traffic especially during peak hours. It is consider two peak hours that is morning and evening hours. It traffic volume is to be calculated. Traffic congestion refers to the way in which the moment of vehicles is late or delayed one by other due to the road capacity.

Traffic signals control is used to maintain the traffic flow there are networks through which of the traffic flow is carried out. There are various types vehicles cars, buses, two wheelers, four wheelers, autorickshaw, trucks, tractors, bicycles. Signal time is more there is a effect of this there is a large number of queuing, pollution, fuel consumption, continuous traffic, combined. Pedestrains is also of one in which effect on traffic vehicle speed.

## AIM

The Aim of this project is to make a statistic flow of traffic at various places in city and finding a cause of traffic jam and accident and also giving economical and doable solution to the municipal co-operation of Amravati.

### 1.1 METHODOLOGY:-

A methodology based on technically sound information will have to be formulated before collecting the data and its analysis. The various stages are presented below.

Stage 1 Reconnaissance survey

Stage 2 Road inventory survey

Stage 3 Study of traffic volume

Stage 4 Turning of movement of vehicles study at junction.

Stage 5 Time of delay of vehicles survey.

In this study it is based on the paper Amravati city on traffic flow there is a wide spread of city through commercial, industrially, government, private, and other activities. Rajakamal square is one of the most densely populated area in Amravati city. There is a network and linking connectivity of the roads.

### Data Collection:-

Data survey is important while collecting the data we study the types of vehicles which is running on the road. There are various types of vehicles which is running on the run they

such as cars, buses, four wheeler, tractors, autorickshaw, bicycles etc.

Traffic Volume Study contain the study of vehicles through two peak hours. There are two types of peak hours they are as follows:-1) Morning Peak Hours 2) Evening Peak Hours. The incoming and outgoing of the vehicles can be calculated. This calculated by using manually with the help of the tally sheet. Satellite images is taken with the help of camera.

### 1.2 What is mean by congestion?

The traffic congestion is define as the condition which is placed on the road networks that can be cause or occur due to the increases of vehicles and can be characterized due to the slower in the speed of the vehicles, and increase in the queue of the line of the vehicles.

### What are various types of traffic congestion?

There are various types of traffic congestion they are as follows:-

1)Enivronmental

2)Mechanical

3)Human and infrastructure related

#### 1)Enivronmental:-

As per the study of Dr. Jean Andrey and Daniel Unran it is found that the maxmium traffic collisions is increases due to the snow and rain. To the extreme snowstorm the stops drivers in their tracks it can be due to the weather and extremely effect of mudslide and snowstorm. The mudslide sometime may be more serious thats why collision can be occured.The compounding effect on traffic by creating bad situations,or by making already bad traffic.Due to the weather the uncontrollable affect the tracks.

#### 2)Mechanical:-

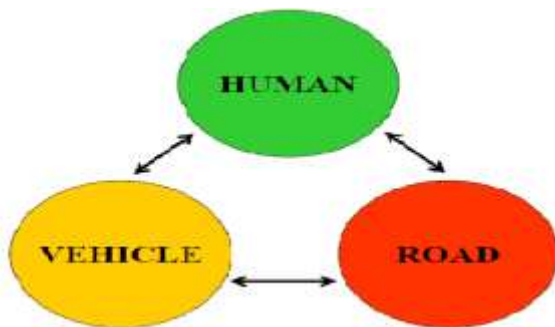
The congestion can be occured mechanical.While we are running on the road the human caused is occured due to the external factors such as a sharp object on the road, and the vehicles is getting harmed.Human can prevent and decrease mechanical damages. Before gonig anywhere please check the vehicle.The vehicle should be checked and maintained. Preventive maintenance cycles are to be followed. While running on the road the preventive maintenances is to be carried out.The cycles should be followed if any issues occured the vehicles is to stopped aside and the drivers run asides. The person should be vehicle aside and let them stop the vehicle aside to the shoulder.

#### 3)Human and Infrastructure related:-

There are too much causes which is occured by the human.Human are himself is the responsible for the traffic

congestion. For the distracted or drunk driving the emotional driving can be occurred. Overtaking of the vehicle is also one of the cause of the traffic congestion. As per the record of 2016 from the National Highway Traffic Safety Administration there are various decisions can be cause on the road. Not giving the license, to the drivers who must not understand the rules of the road. It must be safety for the teaching or coaching guidelines is to be provided. Below the age of 18 strickly to not be permitted of the vehicles.

**IMAGE OF TRAFFIC CONGESTION THROUGH G.P.S**



**INDEPENT CYCLE ON WHICH PEOPLE EFFECTED**



**IMAGE THROUGH G.P.S**

**HUMAN FACTOR**

Physical condition  
fitness  
age  
motor function  
visual abilities

Mental condition  
Experience  
Skills  
Intelligence  
Attitude  
Notions/Beliefs  
Culture

**ROAD USERS**

**DRIVER**

+



DEPEND ON FACTOR THE VEHICLE CYCLE AND FLOW WITH HUMAN RESOURCES

**CONCLUSION**

With the growth in the population and growth in the vehicles the improvement in the good service of level is to be provided. As day by the condition of the vehicle road condition is getting worst. With the improvement of the road by the good quality of the riding and which is to be inadequate to the enhancement to the driving comfort and safety. The road inventory and survey is to be carried out future that it may be concluded that the development of the road is to carried out. The further it may be developed that compulsory road is to provided for special incoming and outgoing road is to be given. The other research is also done on this project.

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Real time data collected from volunteers.

Dr. L.R. Kadiyali "TRAFFIC ENGINEERING AND TRANSPORT PLANNING", KHANNA PUBLISHERS.

Khanna and Justeona "HIGHWAY ENGINEERING" R.T.O. office Amravati Municipal Corporation Amravati City.