

“Case Study of Traffic Congestion”

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Abstract -Traffic congestion has been a worldwide issue which results into wastage of time, energy and causes environmental pollution. Identification of congestion is the initial step for selecting appropriate method to avoid this situation. To understand congestion in simple way it is classified into different categories. There are number of reasons for the congestion problem. There are numerous potential congestion administration procedures. The suggested two related measures are for traffic management are; Regularity measures and Economic measures. Regularity measures are access management and parking management and pricing policies are economic measures. This paper introduces an outline and possible ways for the identification of traffic congestion problem. The review covers various aspects like definition, congestion categories, characterization and traffic congestion management. This paper reviews different sensor frameworks by encircling the advantages and disadvantages of each in terms of cost, reliability, accuracy, efficiency and maintenance overhead

Key Words: Congestion Problems, Regularity Measures, Economic Measures, Reliability, Accuracy, Efficiency

1. INTRODUCTION

Traffic congestion is a normal phenomenon associated with transportation, especially in urban areas. Congestion is one of the problems involving road. Normally, network congestion occurs on land transport on roads.

As demand approaches the capacity of a road or of the intersections along the road, extreme traffic congestion will set in. When vehicles are fully stopped for periods of time, this is colloquially known as a traffic jam or traffic snarl-up. Traffic congestion can lead to drivers becoming frustrated and engaging in road rage.

Congestion is a phenomenon in which long lines of vehicles moving slowly or stopped at the highway city, suburban highways or city streets. Congestion can occur every day at the same time at a specific location that is referred to as recurrent congestion or accidents during road maintenance or availability of any non-recurring congestion. Normally, congestion occurs when the road system cannot accommodate the volume of traffic at a reasonable speed, there is a conflict between the various types of traffic such as cars, trucks, buses or pedestrians and traffic control are not used efficiently. Convergence path, decreasing the capacity of a sudden, that movement

is stuck or increased friction also led to increased traffic congestion.

2. WHAT ARE THE IMPACTS OF CONGESTION?

Congestion involves queuing, slower speeds and increased travel times, which impose costs on the economy and generate multiple impacts on urban regions and their inhabitants. Congestion also has a range of indirect impacts including the marginal environmental and resource impacts of congestion, impacts on quality of life, stress, safety as well as impacts on non-vehicular road space users such as the users of sidewalks and road frontage properties

3. REASONS FOR TRAFFIC CONGESTION

This research tries to focus on the real causes of the congestion in peak hours. Traffic congestion is a local problem not generic the reasons differ from one case to another and is directly related to the road under study. The causes may vary from place to another even in the same city or the same country, therefore, not all the reasons and solutions can be generalized. In fact, all causes of the traffic congestion mentioned below affect each other.

4. REASONS BEHIND TRAFFIC CONGESTION

4.1 Improper planning of city development

Development Plan has its long term city development planning. But that planning is not proper. Most of the time it is seen that some illegally ceased roadside land, but due to the vague development plan these kinds of movements are going in vain

4.2 Inadequacy of traffic police

Traffic police is inadequate in numbers compared to other mega cities in Maharashtra. All the cross roads need at least four traffic police at a time whereas in Yavatmal it is seen that the number of traffic police are always short and due to the lacking of proper instruction the vehicles are getting trapped in traffic. Only two traffic police are working in the city which is inadequate.

4.3 Illegal Parking

The main cause of illegal parking is insufficient parking space available for parking of vehicles. Illegal parking is one of the main causes of traffic congestion in Yavatmal. Illegal parking's are mostly done in front of bus stop, petrol pumps and footpaths etc. Due to this traffic flow is interrupted and slows down the speed of vehicle until the wrongly parked vehicles are removed.

4.4 Festival and Occasional congestion

Another cause for congestion is during festival seasons due to heavy traffic the traffic is diverted through narrow roads and cause traffic congestion

4.5 Passage of heavy vehicle on narrow roads

Traffic congestion is also caused due to passage of heavy vehicle through narrow road in most of the cases huge traffic is stuck for a longer duration. Generally this happens due to the diversion of traffic.

4.6 Improper lane management

Lane management is an important fact in managing the traffic in Talegaon. Many types of the vehicles try to overtake the vehicles even in the single undivided road. This is the main reason that the city roads are unequipped with the lane dividers which divide the lane into incoming and outing traffic.

4.7 Accidents

A major cause for traffic congestion is accidents, generally accidents are caused due to many reasons such as signal jump, over speed, drink and drive etc., mostly 2-wheelers and pedestrians are injured sometimes found death in road accidents. Until the victims are moved from the spot traffic flow is minimized and cause congestion



Fig -1: Road accident

5. SOME MAJOR PROBLEMS THAT ARISE DUE TO HIGH TRAFFIC

- Traffic is one of the major problems in cities and has made the lives of people really difficult. Obviously, it results in non-productive activity.
- People experience delays for their important work. This may even result in personal as well as professional losses.
- It is also the main cause of wastage of fuels and air pollution.
- It increases stress and frustration among motorists and passengers.
- Unsafe driving is the main impact of traffic jam which may lead to road mishaps and hence injuries.
- Traffic jams can also have a negative impact on the mind of a person. The traffic congestion and constant blowing of horns create excessive noise pollution.

6. SUGGESTIONS TO SOLVE THE TRAFFIC JAM PROBLEMS

- People should use public transport as much as possible.
- The government must increase the facilities of public transport as per the need of the population.
- Everyone should avoid the unnecessary collection of vehicles.
- People should use carpool and vehicle sharing to decrease the vehicles on the road.
- Conditions of the road in India is not good. Authorities must improve this situation.
- Vehicle registration and motor driving license policy must be strictly implemented.
- People must be aware of traffic rules and also be motivated to follow strictly.
- Mixed traffic on the roads is also a big reason for it. So, it must be banned.

7. CONCLUSION

Overall, in india traffic problems are caused by an over-reliance on private transport and a failure to keep up with the rapidly expanding population however, the city has shown it can solve problems in the past, and I am confident that it can reduce traffic congestion in the future. Overall, too many cars for too few road have lead to severe congestion in the city. However, if the municipal authorities encourage residents to use public transport., I am sure indian will continue to be a pleasant city to live in future.

8. REFERENCES

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