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CHALLENGES CAUSED BY TRAFFIC CONGESTION IN URBAN CITIES

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ABSTRACT

It is challenge of traffic congestion has become recurrent problems in urban cities. A rapid growing economy, the complexity is effectively is in more or less all main urban cities*. This is mostly since transportation growth is slow compared to increase in number of vehicles, due to gap and expenditure constraint. Traffic being non-lane based and disordered, is mainly unusual with different types of vehicles. Urban city roads are under mixed traffic conditions. The road user physiological performance also causes delay and congestion. In this paper, the traffic congestion problems and challenging proposals have been studied.*

Keywords: Traffic, delay, overcrowding, road, vehicle, quantity

I. INTRODUCTION

Mostly, road transport is the major approach of transport which connects the villages, towns, cities, urban areas, states and whole country in to the structure establishing an innovative communication. It looks up the entire nation growth, atmosphere surroundings and socio economic culture developments. Additionally the special advantages of the urban transport individuals have been facing unusual troubles owing to the need of its suitable organization, renovate & maintenance. With the unusual jam of road transport, traffic congestion is the rising troubles in the urban area. Various authentic problems and solutions of traffic congestion have been discussed in this paper.

II. TRAFFIC CONGESTION

Traffic congestion is the existence of delays by the side of a considerable lane due to the existence of additional road users. This is the most significant trouble of transportation in urban area. Because of this, each cause is delaying: road user artificiality attain to the intention, be short of services on the era public require, be short of services listed the routes public demand. Owing to the traffic congestion the extraordinary intersections the liberated stream of the vehicles speed is low compare to the design speed. This will effect socioeconomic development of the country. Environmental pollution increases due to traffic congestion. The inequity of physiological performance of the road user may leads to the risk generation further it may leads to accident.

Fig : Traffic congestion under mixed traffic conditions

III. STUDY OF TRAFFIC CONGESTION

All traffic congestion is caused by overindulgence organize. When the ability of road exceeds, a stay in line will form. The stay in line is comparatively sensitive to the magnitude of excess order. Pro illustration, if it has needed off on a four-lane throughway is 7,300 vehicles / hr and the ability in a jam is also 7,300 vehicles/hr, it is anticipated - surplus delay of vehicles within the intersections. Busy streets and amplified effluence caused by individual vehicle. Irregular parking and mixed traffic conditions will lead congestion. Mixed traffic conditions are challenge problem in urban area. Slow moving vehicles like cycles, cycle rickshaws, Autos, bullock carts, heavy transport vehicles will also cause congestion of traffic in urban area. Apart from these political processions, dharnas, strikes, religion processions will effect traffic movement. Religion small temples, mosques, churches some of them are recently created by neighbor land owners (because land value will be more as compared to government compensation) and politician statues leads to delay and overcrowding in urban area.

Fig : Obstructions to traffic on urban areas

IV. PROPOSALS AND CONCLUSION

A scientific approach is required to study traffic delay and overcrowding contributors/parameters. Application of mathematical models to traffic parameters should be implemented as there is constraint for road criterions and limited funds. Some of the following recommendations have been studied for improving traffic movement and to reduce delay and overcrowding in metropolitan region.

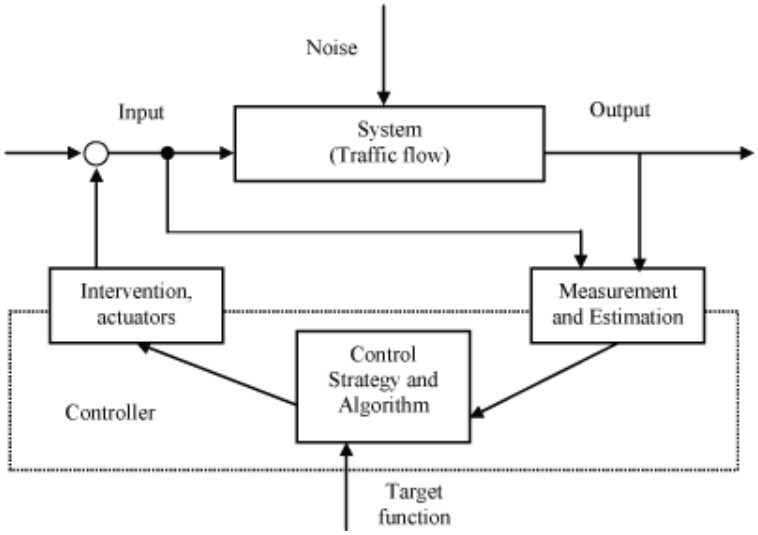
1. Separate traffic lanes should be indentified for comparable sort of vehicles i.e., two wheels vehicles, three wheels and four vehicles, Bus tracks etc.

2. Appropriate parking places should be recognized. Users must park their vehicles at provided regions/bays.

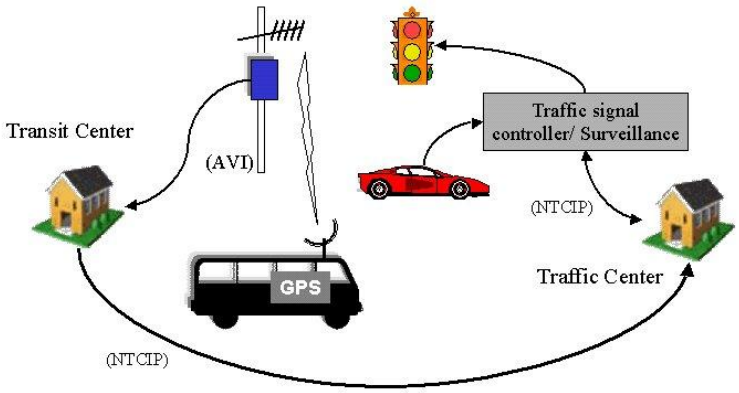
3. Well development shopping malls / commercial building should be allowed in metropolitan region with proper parking area and other facilities.

4. Implementation of Intelligent Transportation System similar to confrontation organization, Corridor administration, sophisticated means of transportation arrangement, sophisticated traffic organize, genuine instance trip corresponding, incorporated passage & reasonable arrangement. The Intelligent Transport System (ITS) holds promise for a sustainable and balanced transportation solution. Intelligent Transport Systems (ITS) is essentially the application of computer and communications technologies coming in aid of the transport

problems. ITS technologies enable gathering of data or intelligence and then providing timely feedback to traffic managers and road-users. ITS results in improved safety to drivers, better traffic efficiency, reduced traffic congestion, improved energy efficiency and environmental quality and enhanced economic productivity. Some examples of ITS include Advanced Traffic Management Systems, Advanced Traveler Information Systems, Advanced Vehicle Control Systems, Electronic Toll Collection Systems, Advanced Public Transportation Systems et al. ITS endeavor for Indian cities is initiated with collaborative projects between the department and research and academic institutions having requisite expertise.



Control architecture of systems



Bus data: (location, schedule, #passengers, priority,...)

5. Improvement of the street/gulley/local roads, use for two wheelers with speed breakers.
6. Proper administration of lighting organization on urban roads.
7. Severely implement of traffic rules, regulations and laws
8. Encouraging sharing vehicles/minibuses/cars /passenger vans
9. Flyovers/Sky Flyovers/Metro rails/Elevated express ways should be constructed.

Fig: Typical flyover

Fig: Typical express way

10. Use side area (occupy the adjacent land owners) for the roads adjacent to religion temples, mosques, churches. New temples, mosques, churches and any type of statues should not be allowed on the city roads.

If everyone believe regarding this difficulty and know how to understand and authentic problem and twist into cautious concerning it, the difficulty will be tends to reduce. Implementation traffic laws & rules and are individual task of the complicated road users. Road users should follow queue in lane. If they will move in proper way there will be less delay and overcrowding in urban area. Alternative routes should be planned for two wheelers as they are driving their vehicles in zigzag manner with different speeds on the major roads on urban region. Implementations and above problems are challengeable and the concern authority/engineer should plan according restricted constraints.

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