

## “A Review Paper on Movable Divider and Cost Efficiency”

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**Abstract** - The Movable Dividers that we provided reduces the one way traffic which is very high during the peak hours in major cities such as Mumbai, Pune, Bangalore etc. And it is also beneficial for the cities which are developing or considered as emerging industrial as well as business centers. We are majorly focusing on one way traffic which is maximum during the peak hours. Since traffic is inherently chaotic and noisy in India. Identification of intensity of traffic congestion is an essential requirement for defining the congestion and appropriate measures. The main focus of this paper is directed towards the recurring traffic congestion, intensity, precautionary measures and an option for the same. The implication of expanding existing road width or building new one will only result in additional traffic that rises. The total available for construction in urban areas is limited. The paper suggests implementation of movable traffic dividers as a remedial strategy for such developing areas instead of traditional old school widening of roads. The movable traffic dividers helps in reconstructing the road capacity to attain maximum benefits of the road which are previously constructed.

**Keywords** :- Moving Divider, Safety, Road Signals, Remedial strategy, Traffic congestion

### INTRODUCTION

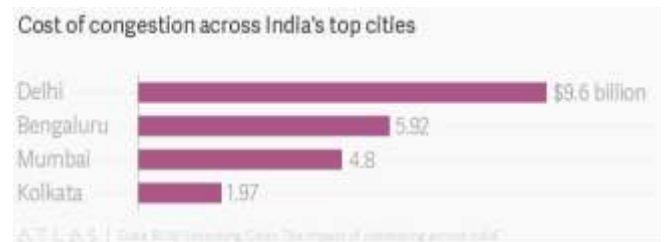
In recent years, with an ever increasing rate of development in metro cities around the world, there has been gradual increase in intensity of vehicles on the roads. The density of vehicles using infrastructure has increased rapidly but the existing infrastructure is unable to withstand issues like congestion, unfortunate travel time delays and road-accidents that are taking a serious shape. Traffic congestion is very concerning issue faced by the metro cities despite of majors taken to reduce it. It has emerged as one of the main challenge for developers in urban areas for planning of sustainable cities.

The main aim of this research is mentioned below

1. This proposed model can be operated automatically.
2. More systematic flow of traffic can be seen, resulting in reduction of traffic jams.
3. Based on the traffic density the time allotted for the passing of traffic is decided automatically.
4. Location Based Services can be done by means of enabled devices.
5. High traffic density can be detected and instant alert messages can be sent through advancements in technology.

The cost of congestion marked on the basis of fuel burned productive loss which includes working hours of a person, the opportunity loss pollution and human loss occurred annually following table 1 shows the data of year 2018.

Table-1 :Cost of congestion in 2018



### LITERATURE REVIEW

**Jos. Jyothirmaye (2018)** - Their research demonstrated an efficient way of controlling traffic through movable dividers. In the proposed model, we are not using a machine and operating it manually rather operating it automatically by using two dividers namely normal and extended dividers. In this paper we place the ultrasonic sensor to one side of the road to detect whether there is any traffic congestion or not, if there is a congestion then the extended divider raises up and normal divider is set to ground level, else the normal divider is raised up and extended divider is set to ground level. And if there is a congestion then a message is sent to the nearby traffic

control police stating that traffic congestion has occurred. So this is simple and can replace the heavy machines.

**Naveen N, Sowmya C N (2019)** - PloT Deployed Automatic Movable Smart Road Divider to Avoid Traffic Problems explains that the Water Road Divider is conventionally utilized for isolating the Road for ongoing and incoming traffic. This helps keeping the stream or flow of traffic. For the most part, there is equivalent number of paths for both ongoing and incoming traffic. For instance, in any city, there is industrial zone or shopping area where the traffic by and large streams in a single direction in the first part of the day or night. The opposite side of Road divider is for the most part either unfilled or under-used. Usually, experienced during peak morning and evening hours. This outcome in loss of time for the vehicle proprietors congested driving conditions just as underutilization of accessible assets. Our thought is to figure a system of smart road divider that can move lanes or paths, with that goal we can have increasingly number of paths toward the hurry. The combined effect of the time and fuel that can be saved by adding even one additional path to the direction of the rush will be significant. With the brilliant smart application proposed, we will likewise dispose of the dependency on manual mediation and manual traffic coordination so we can have a more smarter traffic everywhere throughout the city. An Automated mobile street divider can give an answer for the previously mentioned issue successfully. This is conceivable through IOT.

**Keith K. Knapp (2016)** - Suggested factors for Converting Four-Lane Undivided Roadways to a Three-Lane Cross Section: Factors. The subject material of this paper is limited to the discussion of urban four-lane undivided roadways that have already been identified for a cross section improvement. In other words, the operation and/or safety conditions of the four-lane undivided roadway have degraded enough to require an evaluation of possible cross section improvements. The objective of this paper is to identify and discuss the factors that will help determine the feasibility of a four-lane undivided to three-lane cross section conversion. If the conversion is considered feasible, a more detailed engineering analysis should then be completed.

**H. Hwang (1999)** - The author suggested an Evaluation of the LightGuard(TM) Pedestrian Crosswalk Warning System. In any case, incredibly, a few highlights that may look like to influence, for example, plastered driver or youthful driver, was not the significant issues in accidents. It will most likely create a mark on number of people living in that area and light. To reduce the number of pedestrian accidents, there are few methods which lead driver to back of and look out at the issue. In the first place approach is to

authorize the acknowledgment of crosswalk region utilizing light transmitting asphalt marker, in this manner vehicle driver can be effectively educated where the genuine crosswalk is on the road.

**Paweł Rajczyk (2018)** - Proposed that new technological solutions in improving road safety. The proposed structure helps to reduce the chances of traffic jams and to provide clearance of road for the emergency vehicles to an extent. In these proposed work we are aimed to clear the traffic in accordance to priority. The Blob analysis and the traffic density victimization morphological filtering has discovered in these system. The road with best priority (with very high traffic level) is cleared first. The proposed system mainly focuses on the motor cars. Using the victimization image processing emergency vehicles is detected. Based on these parameters and according to time periods the proposed system works in the traffic congestion.

## CONCLUSION

The above research is conclusive that the above research is very productive and is very useful for controlling the traffic problems which results in loss of time as well as human life as well as loss of loss of property. The proposed structure helps to reduce the chances of traffic jams and to provide clearance of road for the emergency vehicles to an extent. In these proposed work we are aimed to clear the traffic in accordance to priority. The road with best priority (with very high traffic level) is cleared first. The proposed system mainly focuses on the motor cars. Using the imageray data emergency vehicles are detected. Based on these parameters and according to time periods the proposed system works in the traffic congestion.

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