

A survey on: Traffic Occurrence Situations

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Abstract:

Traffic congestion is a major transport problem. Due to traffic congestion, there is possibility of accidents because of poor traffic management. There may be occurrence of traffic congestion due to many situations involved. In this paper traffic congestion impact and situations occurred during the traffic congestion. It not only explains about the traffic occurrence situations caused and it also explains the concept about the impact on traffic due to bad conditions effects the traffic.

1. Introduction

Traffic Mobbing is a condition on transport networks that occurs as use increases, and is characterized by slower speeds, longer trip times, and increased vehicular queueing. When traffic demand is great enough that the interaction between vehicles slows the speed of the traffic stream, this results in some congestion. While congestion is a possibility for any mode of transportation, as demand approaches the capacity of a road (or of the intersections along the road), extreme traffic congestion sets in. When vehicles are fully stopped for periods of time, this is colloquially known as traffic jam or traffic snarl-up. Traffic can lead to drivers frustrated and engaging in road rage.

2. Impact on traffic

If u live in a large city or any area where there are lots of travellers on the road, then

you are probably familiar with the effects of traffic congestion. This can have a tremendous impact on your personal life, carrier, your future and even your safety. There are many effects on traffic.

A. Delays

The first thing many people think of it when it comes to congested road ways is the delay [1]. During the morning commute there is the additional stress because delays caused by traffic can make people late for work. And at the end of the day, the evening rush hour is again a frustrating time because the workday is done and people want to get home to relax [2], and traffic is preventing it. These delays are the effects most people feel because they are universal to everyone who has to manoeuvre through congested roads.

B. “Just in case” Time

A secondary effect of traffic congestion related to delays is the inability to estimate travel times[3]. Those who regularly travel congested areas know approximately how long it usually takes to get through a particular area depending on the time of day or the day of week. These experienced city drivers have to build in time “Just in case” the traffic is bad[4]. This takes away from leisure time and time to do other tasks throughout the day.

C. Fuel consumption and pollution

The stopping and starting in traffic jam burns fuel at a higher rate than the smooth rate of travel on the open highway [5]. This increase in fuel consumption cost commuter's additional money for fuel and it also contributes to the amount of emissions released by the vehicles. These emissions create air pollution and are related to global warming.

D. Road Rage

Road Rage is a senseless reaction to traffic that is common in congested traffic areas[6]. If someone is not driving as fast as the person behind him thinks he should, or someone cuts in front of someone else it can lead to an incident that is dangerous to the offender and those around him on the road.

E. Emergency Vehicles

When you dial 911 and request a police officer, an ambulance or a fire truck and the emergency vehicle is unable to respond in an appropriate amount of time because of traffic congestion it can be a danger to you and your property [7]. Systems are available that help alleviate the problem by arriving the emergency crews to automatically change the traffic lights to keep the line moving.

3. Traffic occurrence situations

The fact is that traffic congestion is caused by multiple causes and here they are not in the order of their importance

Saturation

The most common form of traffic occurs when there are more vehicles than the road can support. This form of congestion, also called saturation, is recurring, and makes up about half of all traffic that city can experience on a daily basis, according to the Federal Highway Administration [8]. Saturation often happens when a city's population grows faster than its infrastructure. In places like Austin, for example, which is considered the fastest growing city in the country, highway saturation is a critical issue that law makers have sought to address for years. Because sitting in highway traffic is seen as an unproductive and undesirable activity, recurring congestion can have adverse effects on both the economy and citizens' wellbeing.

Construction

While it may seem frustrating to get stuck in a construction zone, interstate maintenance actually helps relieve traffic congestions in long run [9]. Types of constructions that improve traffic flow might include adding more lanes to the highway, creating one-way streets and putting up traffic lights. If you are sitting in traffic because of construction, you can be optimistic in knowing that these new developments will actually decrease your travel time in near future.

Car Crashes

Often times, when drivers hit heavy traffic, they immediately wonder if there was a car accident. Car crashes disrupt traffic flow for several reasons [10]. The wreck might be

blocking the interstate so that no cars can get around it. Drivers might have to stop, slow down or move over so that emergency vehicles can make their way to the scene of the accident. Sometimes, even if a wreck has been cleared to a side of the road, drivers will “rubberneck”, meaning they will drive slower so that they can get a better look at the crash.

Weather

Bad weather interrupts the free flow of traffic because it makes drivers more cautious. While you might feel annoyed by drivers who are moving slower than usual due to rain, snow or ice, they are simply taking safety precautions. In fact, its advice to go slightly below the speed limit in adverse weather in order to decrease your risk for crashing. Its better that you are stuck in traffic gridlock for a bit than be the victim of a car crash.

Distracted Driving

A newer form of traffic that is affecting cities more and more everyday is actually the result of distracted driving. When drivers are distracted by their smartphones or other handheld devices they might not drive at a constant speed, thus unintentionally increasing traffic density. Drivers might also get distracted at stop lights, which can affect traffic density once the light turns green. In fact, smartphone distraction at a traffic lights can negatively impact regular traffic flow for an average of 27 sec after you have stopped texting, according to the AAA Foundation. This is never text and drive, as

it can not only increase traffic congestion but also increase your risk for crashing.

Narrow roads

Streets of Talegaon are not that wide spread, due to illegal possession on the road they are getting narrow and becoming a reason behind traffic jam. So every possibility is there to expand the road as per their right of way to reduce traffic congestion. Moreover this will be less expensive and less time consuming due to land acquisition won't be required in this process.

Illegal Parking

Illegal parking on the road has been creating congestion every day from petrol pump to Indrayani College, a distance of around one kilometre [11]. On-road parking of vehicles is one of the main reasons behind serious traffic congestion on different parts of the Talegaon city.

Increasing number of population

All the areas under Talegaon city are facing an increasing number of population which is a bad indicator for the traffic management and this could be a vital reason behind traffic [12].

Higher Purchasing power of the public

Due to the higher purchasing power of the citizen of Talegaon Dabhade city the popularity of private transportation is increasing and but existing roads and highway are not supportive or changing according to the increasing number of vehicle. As a result vehicle congestion is increasing at an alarming rate [13].

Development Improper planning of city

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.

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. Related work

The most related work associated with the introduction of Traffic congestion and its impact on traffic congestion. This tutorial provides the insight about the traffic occurrence situations caused during traffic congestion.

5. Conclusion

This report attempts to contribute to the traffic occurrence situations for road safety. It is hoped that it will inspire and facilitate increased corporation. Road traffic crashes are predictable and there are fore preventable. In order to cobat the problem, though, there needs to be close collaboration, using a holistic and integrated approaches.

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