
REVIEW PAPER ON TRAFFIC CONFLICT**Anand Prasad¹, Mr. Miss Shivani²**¹M. tech Scholar, Satpriya group of institutions, Rohtak, India.²Assistant Professor, Satpriya group of institutions, Rohtak, India.DOI: <https://www.doi.org/10.58257/IJPREMS31394>

ABSTRACT

The consolidation of Indian roads has resulted in an increase in collisions, mostly at unmanned intersections and minor collisions. While accidents, deaths and injuries provide a direct measure of road safety, the availability of reliable data on this subject varies. The traffic jam system is an indirect way of measuring road safety. There are now many ways to measure traffic intersections. The German system provides a simple way to analyse and record conflicts using conflict precedents and the types of conflicts that led to the conflict. The Swedish system requires detailed observations on the ground, such as the speed of the vehicles in conflict, the distance between them and avoidance measures. However, this is a more accurate way of distinguishing large conflicts from small conflicts. This article uses both the Swedish method and the German traffic problem method to find the rest time and evaluate the results for Karkari mor flyover.

Keywords: conflict technique, traffic safety, Swedish method, german traffic problem

1. INTRODUCTION

Traffic safety is declining all over the world. High-income countries such as the Scandinavian countries have experienced improvements in climate security over the years, but global developments have not affected this change. Traffic accidents, which ranked 9th in 1990, have become the third threat in the world in 2020. Many studies have shown the link between per capita economic income and transportation for citizens across the country. The growth rate of traffic fatalities is increasing mostly in low- and middle-income countries. High-income countries generally have a lower risk of death in traffic. One possible measure is to transfer knowledge and technology from high-income countries with low road safety to low- and middle-income countries with low road safety. While accidents, deaths, and injuries provide a direct measure of road safety, their availability and reliability vary. Where fatalities are well reported, they are often too few to determine the cause of an accident at an intersection or road. Random fluctuations also make it difficult to identify important factors. All other injuries and pure damage are not and often not reported, although many of them are interesting for statistical analysis. Therefore, more information is needed to accurately identify security issues in high-risk locations and develop appropriate counter measures. Studies have shown that there is a relationship between accidents and major conflicts. This is mainly because the processes involved in accidents and serious conflicts are very similar. This important relationship allows information from conflict research to be used in conjunction with accident data to identify high-risk situations and to explain how accidents occur and how they will be attempted. There are now many ways to measure traffic intersections. The German system provides a simple way to analyze and record conflicts using actionable conflict precedents and conflict types.

2. LITERATURE REVIEW

Travelers accounted for more than a third of all deaths in South Korea, Israel, Japan and Poland, compared with around 10% in New Zealand, the Netherlands and Norway. Cyclists account for the majority of all deaths in the Netherlands (22%), Japan (16%) and Hungary (13%), while only 1% to 2% in the USA, the country of Greece and Northern Ireland. In Greece (33%), Italy (30%), France (26%) and Switzerland (24%), motorized two-wheeled vehicle (PTW) driver deaths were responsible for many deaths. Many of the reductions in deaths in IRTAD countries over the past decade have had a positive impact on passengers; this is a reality that often led to increased speed control and alcohol consumption, which led to death in 2000 and 2010, as well as safety in vehicles. The results are unsatisfactory for those who use the easy way; however, pedestrian and cyclist deaths have decreased by only a quarter over the past decade. Road user safety remains an important issue for road safety, especially in low-income countries.

3. EXPERIMENTAL INVESTIGATION

The experiment examined cars, the only group of people traveling along the lane. Especially motorized two-wheeled vehicles (MTW) the Especially motorized two-wheeled (TSRS) vehicles do not follow the marked line as they will turn and see a small gap due to large vehicles passing by. Another important issue is that there is no pedestrian crossing in Agartha and pedestrians cross the street at various locations. During morning and evening rush hour, there are large pedestrians crossing the road, which causes accidents. In general, traffic in Karkari mor flyover, can be described in three different ways (Figure 4.6): Bad driving, traffic jams and pedestrian traffic strain the road. Impact

traffic: When there is "Pulse" traffic, the time difference is large enough that pedestrians are willing to wait. Pedestrians: When traffic is "in line", pedestrians crossing the road will be willing to take advantage of the first visible openings, even if the slots are small. Giving Pedestrian Way: Pedestrians crossing will be given way when traffic is not obstructed. There is constant traffic in the morning and evening, and pedestrians do not have time to cross the street. Most conflicts involve cars, cyclists and pedestrians. Cars and bicycles are groups of road users who often flee (avoidance). The German conflict assessment system uses a better approach than the Swedish system for conflict detection and reporting. Disputes are first divided into several groups, unlike the Swedish system, where each dispute is defined and recorded separately, and then divided into different types of disputes that are appropriate.

The following 13 categories of traffic conflicts have been defined for the German Traffic Conflict Measuring Technique

1. Straight ahead conflict:

This can happen when:

- Two vehicles are following each other and the front vehicle slows down or stops,
- The following vehicle approaches the front vehicle at excessive speed.

2. Lane changing conflict:

This can happen when a vehicle changes from one lane to another and disturbs a vehicle in the next lane, thus causing the driver of the lane-changing vehicle or the driver of the disturbed vehicle to make a critical movement (swerve or brake).

3. Right turn conflict:

This can happen when a right-turning vehicle obstructs a vehicle approaching from the opposite direction. Should either of the drivers of the vehicles concerned have to take evasive action (swerve or brake), a right turn conflict occurs.

4. U-turn/turnabout conflict:

This can happen when the driver of a vehicle turns his vehicle about in a lane or makes a U-turn and obstructs another vehicle. A conflict occurs when the driver of the turning vehicle and/or the driver of the disturbed vehicle have to take evasive action.

5. Exiting conflict:

This can happen when a vehicle exits a lane to turn left or right into a parking area, another street or a driveway. Then the driver of the following vehicle has to take evasive action (swerve or brake), results into an exiting conflict.

6. Joining conflict:

This can happen when a vehicle joins other traffic from a side street, a parking area or a driveway. Should the driver of the joining vehicle and/or the driver of an oncoming vehicle (moving in the same direction) have to take evasive action (swerve or brake), a joining conflict occurs.

7. Right turn/right turn conflict:

This can happen when two vehicles approaching from opposite directions simultaneously enter a crossing, both turning to the right. Should either of these drivers have to take evasive action (swerve or brake), a right turn/right turn conflict occurs.

8. Left turn/right turn conflict:

This can happen when two oncoming vehicles from opposite directions simultaneously enter a crossing, one turning to the left and the other turning to the right. Should either of these drivers have to take evasive action (swerve or brake), a left turn/right turn conflict occurs.

9. Evacuating conflict:

This can happen when vehicles are in an intersection whilst the traffic light that originally gave permission to enter the intersection changes from green to red and from red to green to authorize right of way to the cross street traffic.

10. Intersection conflict.

This can happen when a vehicle driver ignores a red traffic light, a stop sign or a yield sign controlling an intersection and passes the intersection in front of an oncoming vehicle which has right of way from the cross road. Should either of the drivers of the two vehicles take evasive action (swerve or brake), an intersection conflict occurs.

11. Approach/approach conflict:

This can happen when a vehicle turns right into the lane of an oncoming vehicle from the opposite direction. Should one or both of the drivers involved take evasive action (swerve or brake), an approach/approach conflict occurs.

12. Vehicle/pedestrian conflict:

This can happen when the driver of a vehicle, turning left or right or proceeding straight forward, has to swerve or brake to prevent a collision with a pedestrian.

13. Pedestrian/vehicle conflict:

This can happen when a pedestrian moves in front of an oncoming vehicle forcing the driver of the vehicle to take evasive action (swerve or brake).

In addition to the above-mentioned categories, the German Traffic Conflict Measuring Technique also distinguishes the following types of traffic conflict manoeuvres (Nel 1989b):

- Controlled braking or lane change to avoid collision but with ample time for safe manoeuvres.
- Rapid deceleration, lane change, or stopping to avoid collision resulting in a near- miss situation (no time for steady controlled manoeuvre).
- Emergency braking or violent swerve to avoid collision resulting in a near-miss situation or minor collision.
- Emergency action followed by collision.

4. CONCLUSION

From this study it is concluded that traffic conflict techniques are useful at accident prone locations and the classifications of conflicts gives a better understanding of traffic behaviour. The following conclusions can be drawn based on the results of this work:

Conclusion from Traffic volume Study:

On the basis of hourly classified traffic volume study during morning and evening rush hours, it is observed that more than 2000 vehicles travelled towards Pipli and more than 1800 vehicles travelled towards Sector 17 in morning 1 hour and more than 1500 vehicles travelled towards Pipli and more than 1800 vehicles travelled towards Sector 17 during evening 1 hour.

From the classified traffic count it is observed that maximum share is of car (52%) followed by two wheelers (29%) in the traffic composition in terms of PCU.

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