

**EVALUATION OF TRAFFIC SAFETY BY USING  
TIME TO COLLISION: A CASE STUDY OF  
RAJKOT CITY**

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**Civil Engineering Department,**

**Faculty of Engineering & Technology**

**ATMIYA UNIVERSITY**

**Yogidham Gurukul, Kalawad Road, Rajkot**

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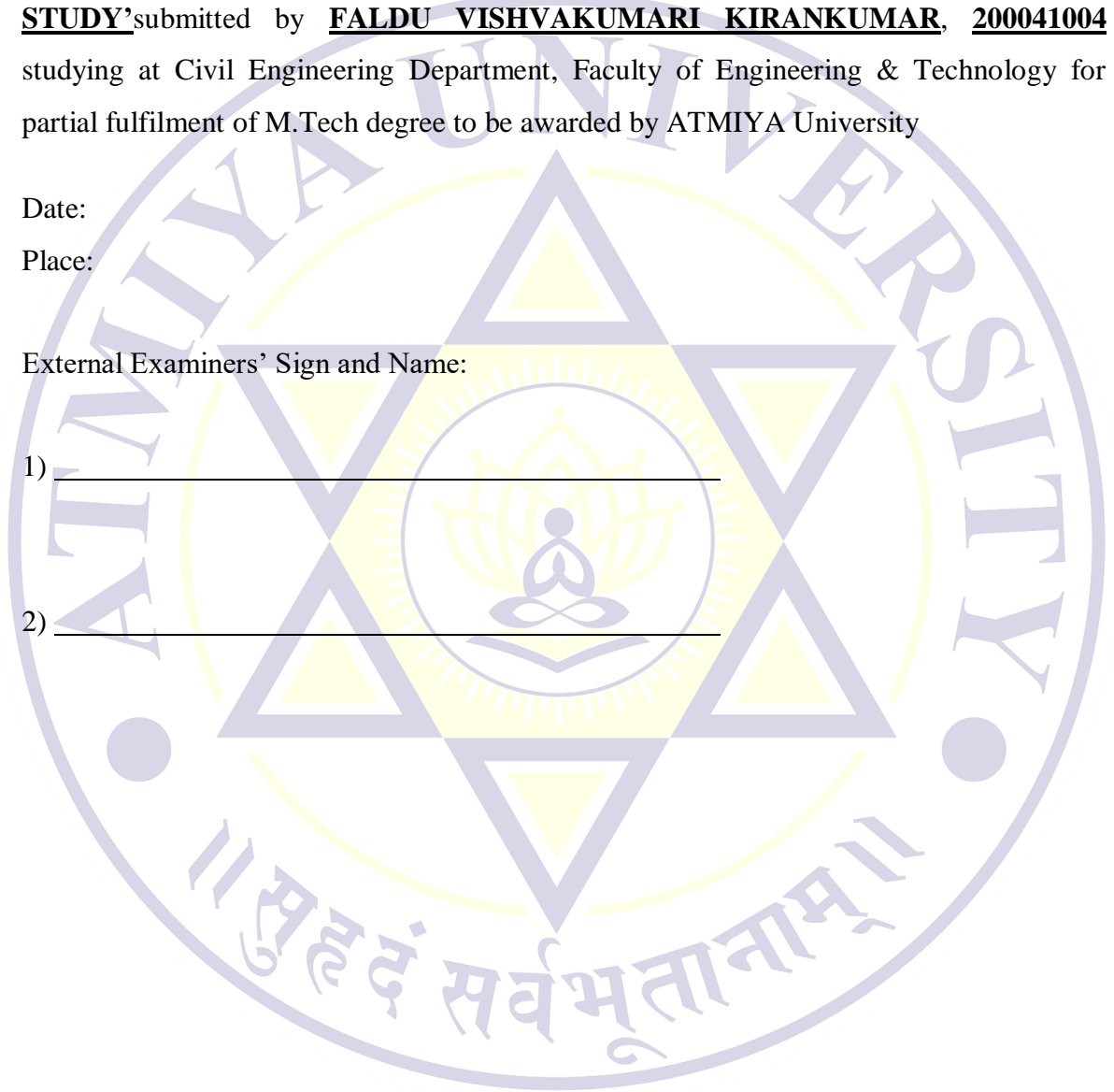
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***Dedicated to,***

***For every success of my life, for  
Being warm and caring, great  
Enthusiasm, Inspiration, Support &  
Love is Heart of my Achievement.***

***Thank you.***

***My Mom, Dad &  
My beloved Friends***

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Place: Atmiya University, Rajkot

- Vishvakumari K. Faldu

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# **“Evaluation of traffic safety by using time to collision: A case study”**

**By**

**200041004**

**Miss. VISHVAKUMARI K. FALDU**

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## **ABSTRACT**

Traffic safety is extremely important, especially on city streets where traffic volumes are high and traffic conflicts are common. As a result, it is critical to design a methodology for assessing traffic safety. The study's issues are as follows: The common roadway is used by a large number of venerable road users and vehicular traffic. Driving standards are poor, and traffic safety is limited along that section of the road. The time to collision (TTC) samples from traffic videos taken from kotecha circle to indira circle with different locations and traffic conditions are first analyzed in this paper. However, according to field survey data, a lateral separation between the leader and the follower occurs frequently in complex traffic conditions. As a result, we redefined the time-to-collision equation by taking in lateral separation (TTC). TTC samples can be categorized into three groups: risky scenarios, relative safe situations, and absolute safe situations. Following that, the proposed traffic safety indicator is used to represent the assessment results of urban road traffic safety.

**KEYWORDS:** Time to collision, traffic safety, traffic volume study, spot speed study



# **CHAPTER 1 INTRODUCTION**

## **1.1 GENERAL**

One of the fundamental measures of traffic on a road system is the volume of traffic using the road in a given interval of time. Knowledge of the vehicular volume using a road network is important for understanding the efficiency at which the system work at present and the general quality of service offered to the road users. Knowing the flow characteristics one can easily determine whether a particular section of the road is handling traffic much above or below its capacity. If the traffic is heavy, the road suffers from congestion with consequent loss in journey speed. Lower speed cause economic loss to the community due to time lost by the occupants of the vehicles and the higher operational cost of the vehicles. Congestion also leads to traffic hazards. Volume counts are, therefore, indicators of the need to improve the transport facilities and are an invaluable tool in the hands of a transport planner. They enable him to draw up schemes for improvement of roads based on a system of relative priorities and to allocate the scare economic resources most advantageously.

### **1.1.1 TRAFFIC COLLISION**

Any vehicle accident occurring on a public roadway is referred to as a traffic collision. A vehicle accident is assumed to have occurred on a public highway, with the exception of accidents involving only off-road motor vehicles, which are categorized as non-traffic accidents unless otherwise mentioned. When a vehicle collides with another vehicle, pedestrian, animal, road debris, or other, it is known as a traffic collision.

There are 3 stages of traffic collision: vehicle, human, internal. The advantage of the collision is the vehicles have the ability to spot obstacles in front of or behind them. And the disadvantage of the collision is the difficult for the technology to recognize every possible scenario that can happen on the road. There are many factors affecting collision

Like vehicle design, speed and operation road design, road environment, driver skill impairment due to alcohol and drugs, behavior speeding and street racing etc.

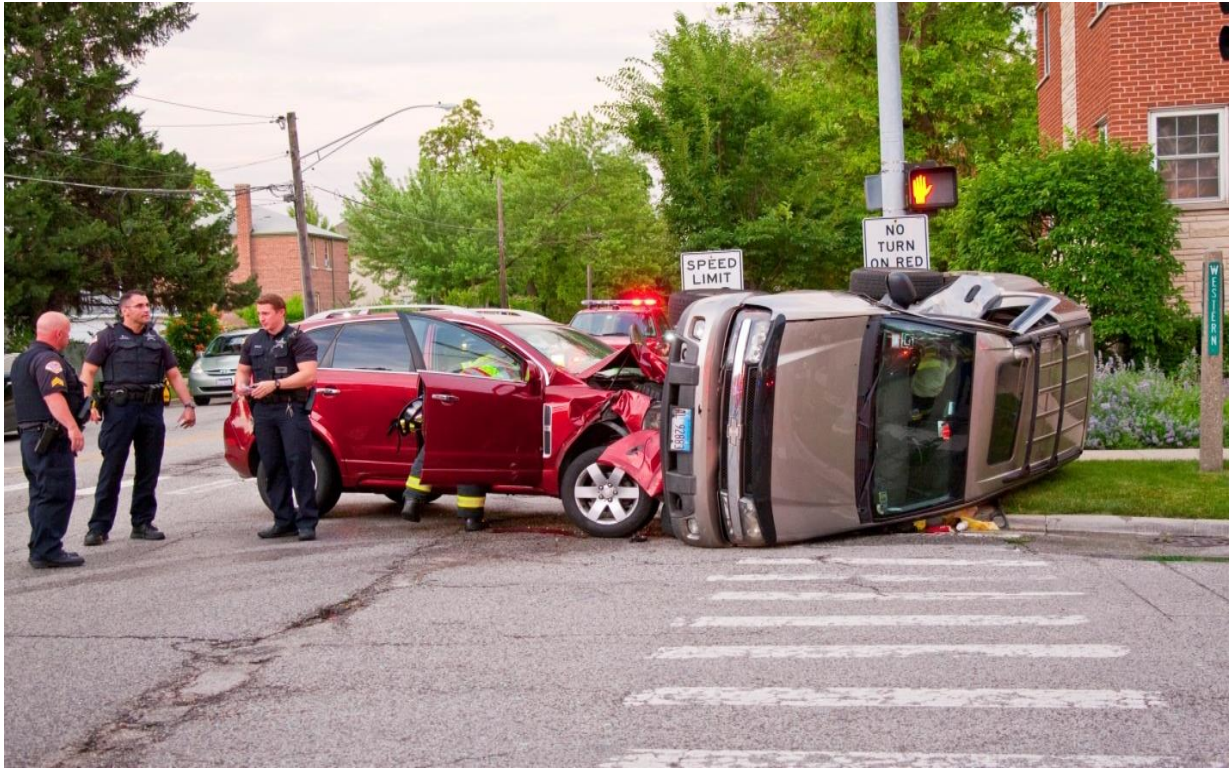


Fig 1.1 traffic collisions

### **1.1.2 TRAFFIC SAFETY**

Most car manufacturers are currently focusing on vehicle technology to improve driver comfort, which may have an impact on traffic flow characteristics and traffic safety. Recent technical improvements in the field of automated driving activities, such as the development of Autonomous Intelligent Cruise Control (AICC) or Collision Avoidance Systems, as well as their proper implementation, justify the safety impact assessments.

The introduction of new technologies is projected to have a positive impact. The impact of vehicular technologies on traffic safety will be both good and bad. Direct safety indicators such as accident and death frequencies cannot be collected in many situations because



Intelligent driver support systems are not yet widely used in the car traffic flow. Because empirical accident data collection is not currently possible, different safety assessment methods are required.

## 1.2 TYPES OF COLLISION

**Road traffic collisions** generally fall into one of four common types:

- Lane departure crashes, which occur when a driver leaves the lane they are in and collide with another vehicle or a roadside object. These include head-on collisions and run-off-road collisions.
- Collisions at junctions include rear-end collision and angle or side impacts.
- Collisions involving pedestrians and cyclists.
- Collisions with animals.

**Head-on collisions:** Because of the high speed involved when a head-on collision occurs, the results are usually poor. Inadvertently crossing into the path of an approaching vehicle is the most common cause of head-on crashes. However, after drifting to the side of the road instead of the centre, the root cause is sometimes a steering overcorrection.

On highways with limited lanes, severe curves, no separation of opposing traffic lanes, and large traffic volumes, the risk of a head-on collision is greatest. As speed rises, crash severity, as measured by the risk of death and injury, as well as car repair costs, starts to rise.

**Collisions involving pedestrians and cyclists:** A frontal collision kills the majority of pedestrians. A pedestrian is struck by a car in the front; for example, the bumper touches the leg or knee-joint area; the lower half of the body is driven forward, while the upper part of the body turns and accelerates to the automobile; the pelvis and thorax are likely to be damaged.

The head then slams into the windscreen at the same speed as the impacting vehicle. The victim finally collapses on the ground.

**Collisions at junctions:** Intersection (road junction) collisions are a typical form of traffic collision. When one vehicle crosses an opposing lane of traffic to turn at a junction, or when one vehicle enters the path of an adjoining vehicle at an intersection, collisions can occur.

**Collisions with animals:** When a single road vehicle collides with another vehicle, it is referred to as a single-vehicle collision.

They frequently have the same root reasons as head-on crashes, but there was no other vehicle in the path of the vehicle that swerved out of its lane. On highways, severe crashes of this nature are more likely to occur since speeds are higher, increasing the severity.

Run-off-road collisions, collisions with fallen boulders or debris in the road, rollover crashes in the roadway, and collisions with animals all fall into this category.

### **1.3 MAJOR CAUSES OF COLLISION**

**Distracted driving:** Distracted driving is one of the most common causes of car accidents. In recent decades, the incidence of accidents caused by distracted driving has increased. While driving, drivers must pay complete attention to what is going on around them, and this should be instilled in them. Driving while reading messages, responding to texts, answering calls, reading, grooming, and other activities might be dangerous.

**Drunk driving:** One of the most hazardous causes of road accidents is driving while under the influence of any medication. Take a cab or give your keys to a sober buddy who can drive you home if you've had a drink or anything. It is not worth the danger to drive while drunk.

**Speeding/ Reckless Driving:** When you're late or driving on a deserted road, it's all too easy to hit the accelerator and raise your speed. Speeding increases the intensity of accidents and has been proven to be lethal in the majority of cases. As a result, even if you are running late, it is best to drive within the legal limits. Reckless driving almost always results in horrible accidents. To avoid unintentional accidents caused by carelessness, take your time and remain cool behind the wheel.

**Not Wearing Seat Belt:** When driving, it is mandatory to wear a seat belt. It not only maintains your posture in control, but it also lowers your risk of injury in the event of a head-on accident. It also enhances the chances of the drivers surviving without suffering any severe injury.

**Rain or Wet Roads:** Wet roads are slick, and as a result, they can be dangerous for vehicles because the wheels lose traction. While driving in the rain isn't always Possible, the slippery streets should be avoided whenever possible. You should also pull over if visibility is very low and wait until the rain stops.

**Potholes and Bad Road Condition:** Poor road conditions are unavoidable and extremely inconvenient for motorists. To avoid damaging your car, be very cautious around potholes. Avoiding potholes by smearing your vehicle might be dangerous.

**Breaking Traffic Rules:** The roads will be a safer place to be if everyone follows the traffic rules. The rules are straightforward, but few individuals follow them. Stop is always indicated by a red signal. Running a red light and disobeying the law, even if no other vehicles are approaching, might result in a serious accident. Recognize that life is more important than all of your excuses put together, and it's always better to be safe than sorry.

**Tailgating:** There's no excuse to get too close to the cars in front of you, no matter how excruciatingly sluggish they may be moving. Maintain a safe distance from other vehicles to allow enough time to react to unexpected turns. All of these factors may appear to be simple, but they are the primary causes of accidents on Indian roadways. Accidents have a slew of disadvantages. Having your vehicle insured can provide you with a sense of relief. As a result, for your four-wheelers and bikes, we recommend that you have a valid car insurance or two-wheeler insurance policy. If your automobile or Two-wheeler insurance coverage has expired, you can renew it online in a matter of minutes.

## **1.4 TRAFFIC COLLISION IN INDIA**

Every year, traffic collisions are a major cause of deaths, injuries, and property damage in India. According to the National Crime Records Bureau's (NCRB) 2016 report, there were 496,762 traffic collisions involving roads, trains, and railway crossings in 2015. Road

Crashes accounted for 464,674 collisions in India, resulting in 148,707 traffic-related deaths.

The three states with the highest overall number of deaths were Uttar Pradesh, Maharashtra, and Tamil Nadu, which together accounted for roughly 33% of all traffic fatalities in India in 2015. In 2015, India reported a traffic collision rate of roughly 0.8 per 1000 vehicles, compared to 0.9 per 1000 vehicles in 2012, and an 11.35 death rate per 100,000 people, adjusted for 182.45 million vehicles and its 1.31 billion populations. According to Gururaj, Tamil Nadu, Goa, and Haryana had the top three

Highest traffic mortality rates per 100,000 people in 2005, with a male: female fatality ratio of roughly 5:1. Sources differ in terms of total fatalities, rates per 100,000 people, and regional variation in traffic crashes per 100,000 people.

For example, in 2018, Rahul Goel reported an average death rate of 11.6 per 100,000 persons in India, with Goa having the highest fatality rate. According to the UN World Health Organization's 2013 global survey of traffic incidents, India had a road death rate of 16.6 per 100,000 people in 2013. India's average traffic collision mortality rate was 17.4 fatalities per 100,000 people, close to the global average of 17.4 deaths per 100,000, lower than the 24.1 deaths per 100,000 reported by low-income nations, and higher than the 9.2 deaths per 100,000 reported by high-income countries in 2013.

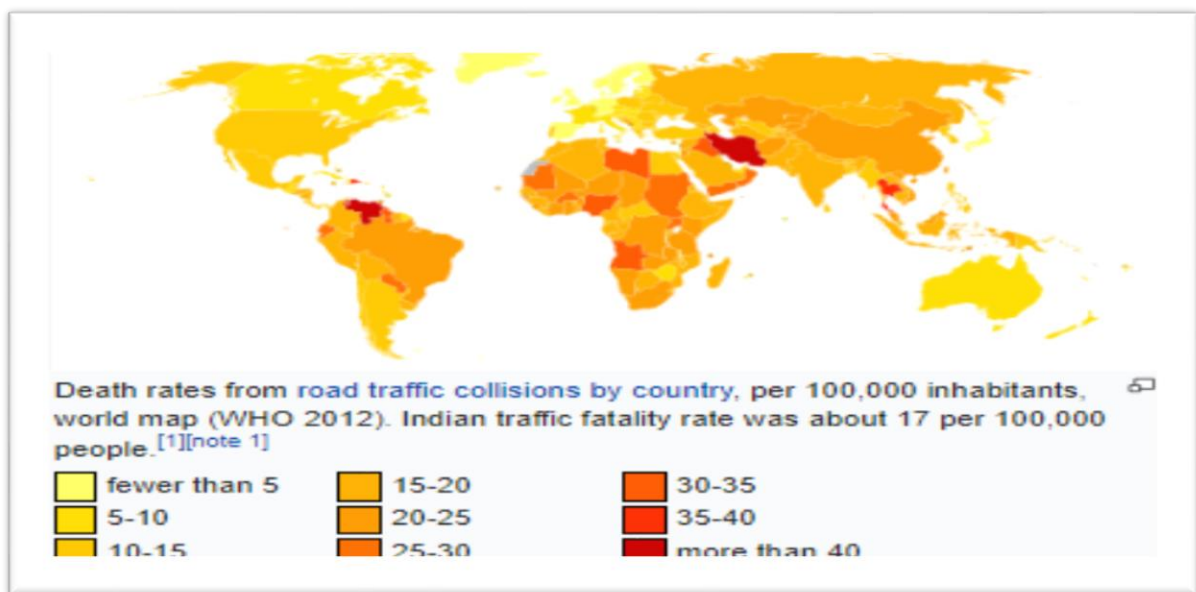


Fig 1.2 Road traffic collisions by country

## **1.5 NEED OF THE STUDY**

- 1) For increasing traffic safety at road level
- 2) Reducing accidents.
- 3) For carried out to analyze the different traffic characteristics and parameters of the studies.
- 4) The various traffic survey studies generally carried out are:
  - speed study
  - Traffic volume study
  - Vehicle headway study etc..

## **1.6 PROBLEM OF THE STUDY**

- 1) Large numbers of pedestrians and animals share the common roadway
- 2) Low driving standards
- 3) Availability of traffic safety are low at that road section.
- 4) Defective roads, poor street lighting, defective layout of cross roads and speed breakers.

## **1.7 OBJECTIVES OF THE STUDY**

- 1) To determine time to collision on urban road.
- 2) To reduce accident from remedial measures on urban road.

## **1.8 STASTICAL ACCIDENT DATA**

Road traffic accidents are the leading cause of death among young people and the eighth leading cause of death worldwide, with 1.24 million deaths predicted each year. Developing countries represent approximately 85% of all deaths. Males, particularly those between the ages of 15 and 44, are disproportionately affected by road accidents. Countries spend between 1% and 2% of their total national product on traffic accidents.

Although developing nations accounted for only 52 percent of all automobiles on the road, they account for 80 percent of all road traffic deaths (WHO, 2013). Road traffic accident fatalities and injuries are an important and growing medical, social, and economic issue in India.

Every year, almost 2,650 people die and 9,000 people are injured in traffic accidents. In India, 137,423 people died and 469,900 people were injured in road accidents in 2013, the most recent year for which statistics is available. With about 140,000 deaths each year, India has overtaken China as the world's leading cause of road deaths.

Table 1.1 comparisons of international fatality rates

Country	Motorization Rate (No. of Vehicles per 1,000 People)	Fatality Rate (No. of Fatalities per 10,000 Vehicles)	Fatality Risk (No. of Fatalities per 100,000 People)
India (2013)	130	8.6	11.2
Germany (2012)	657	0.67	4.4
Japan (2012)	651	0.63	4.1
New Zealand (2012)	733	0.91	6.9
Sweden (2012)	599	0.50	3.0
United Kingdom (2012)	599	0.51	2.8
United States of America (2012)	846	1.26	10.7

In 2019, as many as 2900 accidents reported in the 11 police station limits, according to the data compiled by the police department. It is estimated that the mortality in these accidents is at least 10%. The analysis of the accidents revealed that kuvadva road and the road from Greenland chowkdi to gondal chowkdi on the city's outskirts reported maximum number of accidents, while both these roads connect to the GIDCs and other industrial areas, heavy vehicles also these roads as it merges with the highway.

## ROAD TRAFFIC ACCIDENTS

### SHARE OF CITIES IN ROAD TRAFFIC ACCIDENTS IN THE PANDEMIC YEAR

City	2019	2020	Difference
Ahmedabad	14,088	11,750	▼ 17%
Surat	6,633	3,538	▼ 47%
Vadodara	4,205	3,806	▼ 9%
Rajkot	3,694	3,065	▼ 17%
<b>Gujarat</b>	<b>1,32,985</b>	<b>1,03,525</b>	<b>▼ 22%</b>

Source: EMRI data analytics; Figures for calendar year; Percentage rounded off



**Fig 1.3 city wise road traffic accidents**

## **CHAPTER 2 LITERATURE REVIEWS**

### **2.1 GENERAL**

A review of literature is important in any research work. In this aspect the studies carried out on evaluation of traffic safety using time to collision as well as relevant information pertaining to how to find Gaussian mixture model using time to collision on urban road.

### **2.2 LITERATURE REVIEW**

A literature review is a text written by expert on current issues related to field is contributes on the basis of current knowledge including substantive finding, as well as theoretical and methodological contributes to a particular topic. Also, a literature review can be interpreted as a review of an abstract accomplishment.



## 2.3 RESEARCH WORK

SR NO.	PAPER NAME	AUTHOR	YEAR	WORK DESCRIPTION	PUBLICATION
1	Modeling vehicle accidents and highway geometric design relationships	<a href="#">miaou et.al</a>	1993	The statistical properties of four regression models are explored in terms of their ability to model car accidents and highway geometric design relations, including two typical linear regression models and two Poisson regression models. As a result, these models are improper for making probabilistic statements about car collisions, and the test data produced from them are questionable.	Center for Transportation Analysis, U.S. Department of Transportation
2	Extended time-to-collision measures for road traffic safety assessment	<a href="#">minderhoud et.al</a>	2001	This paper introduces two new safety indicators based on the time-to-collision concept that may be used to compare road traffic safety. The improved safety indicators calculate the overall safety indicator value using vehicle trajectories recorded over a given time horizon for a specific roadway segment.	Accident Analysis and Prevention-Elsevier
3	A comparison of headway and time to collision as safety indicators	<a href="#">katia vogel</a>	2003	The usefulness of the two safety indicators "headway" and "time to collision (TTC)" in determining the safety of different traffic conditions, such as different locations in a junction, is discussed and compared.	Accident Analysis and Prevention-Elsevier

4	Robust Speaker Identification System Based on Wavelet Transform and Gaussian Mixture Model	<a href="#">hsieh et. al</a>	2003	This article proposed a methodology for collecting features for speech processing that is both effective and reliable. Finally, using the Gaussian Mixture Model (GMM) identifier, the proposed feature extraction approach is tested on the MAT telephone speech database for text-independent speaker identification.	Journal of information science and engineering-research gate
5	A tree-based kernel selection approach to efficient Gaussian mixture model-universal background model based speaker identification	<a href="#">xiong et.al</a>	2006	They propose the tree-based kernel selection (TBKS) algorithm as a computationally efficient approach to speaker identification using the Gaussian mixture model-universal background model (GMM-UBM). Computation complexity can be significantly lowered as a result of the TBKS method.	Speech Communication-Elsevier
6	Texture classification and segmentation using wavelet packet frame and Gaussian mixture model	<a href="#">kim et.al</a>	2007	They suggest a texture classification and segmentation scheme in this study. The procedure includes employing the wavelet packet frame decomposition to extract texture features. A Gaussian mixture model is used to represent each subnet of the classifier, and each texture image is given to the class in which the pixels of the image belong the most.	Pattern Recognition-Elsevier

7	Non-Lane-Based Car-Following Model with Visual Angle Information	jin et.al	2011	The existing car-following theory is based on the assumption that in a single lane, cars travel in the middle. The time-to-collision is taken into account for both the follower and the leader.	Journal of the Transportation Research Board
8	Car-following theory of steady-state traffic flow using time-to-collision	jin et.al	2011	The conventional car-following approach is predicated on the idea that vehicles will proceed along the lane's centre line. As a result, they redefined the time-to-collision (TTC) equation using visual angle information by taking lateral separation into account.	Journal of Zhejiang University-SCIENCE A (Applied Physics & Engineering)

9	Assessment of Expressway Traffic Safety Using Gaussian Mixture Model based on Time to Collision	jin et.al	2011	Traffic safety is extremely important, especially on city expressways where traffic levels are high and traffic conflicts are common. As a result, it is critical to design a system for assessing traffic safety. The time to collision (TTC) samples from traffic videos gathered from the Beijing highway with diverse locations, lanes, and traffic situations are first analyzed in this research. And based on K-S goodness of fit tests, it is stated that the Gaussian mixture model (GMM) distribution is the best-fitted distribution to TTC samples.	International Journal of Computational Intelligence Systems
10	Choice of time-headway in car-following and the role of time-to-collision information in braking	<a href="#">winsum et.al</a>	2014	In a driving simulator, time-headway (THW) during car-following and braking response were investigated with the idea that maneuvering behavior (e.g. THW choice) could be connected to operational competence of vehicle control (e.g. braking) through an adaptation process. . At the time the lead car started to brake, the time-to-collision (TTC) had an impact on both the initiation and control of braking.	Ergonomics- Taylor & Francis

## 2.4 STUDY AREA

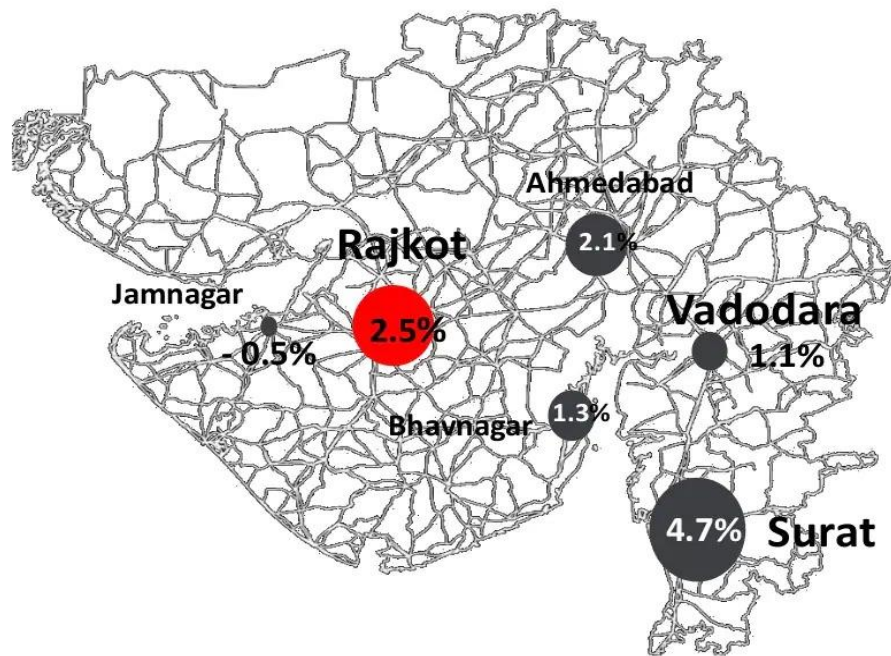
Location of the area: Kotecha Circle to Indira Circle (Sadhuvasvani Road)

City: Rajkot

Total stretch: 1 KM

No. of intersection within stretch: 02

### RAJKOT CITY: LOCATION



#### Rajkot

Population: **1,288,599** persons  
Area: 104.8 square kilometres  
Density: 127 ppHa

In terms of Growth Rate,

**22<sup>nd</sup>** in the world,  
**06<sup>th</sup>** in the country, and  
**02<sup>nd</sup>** in the state.

Fig 2.1 Rajkot city: location



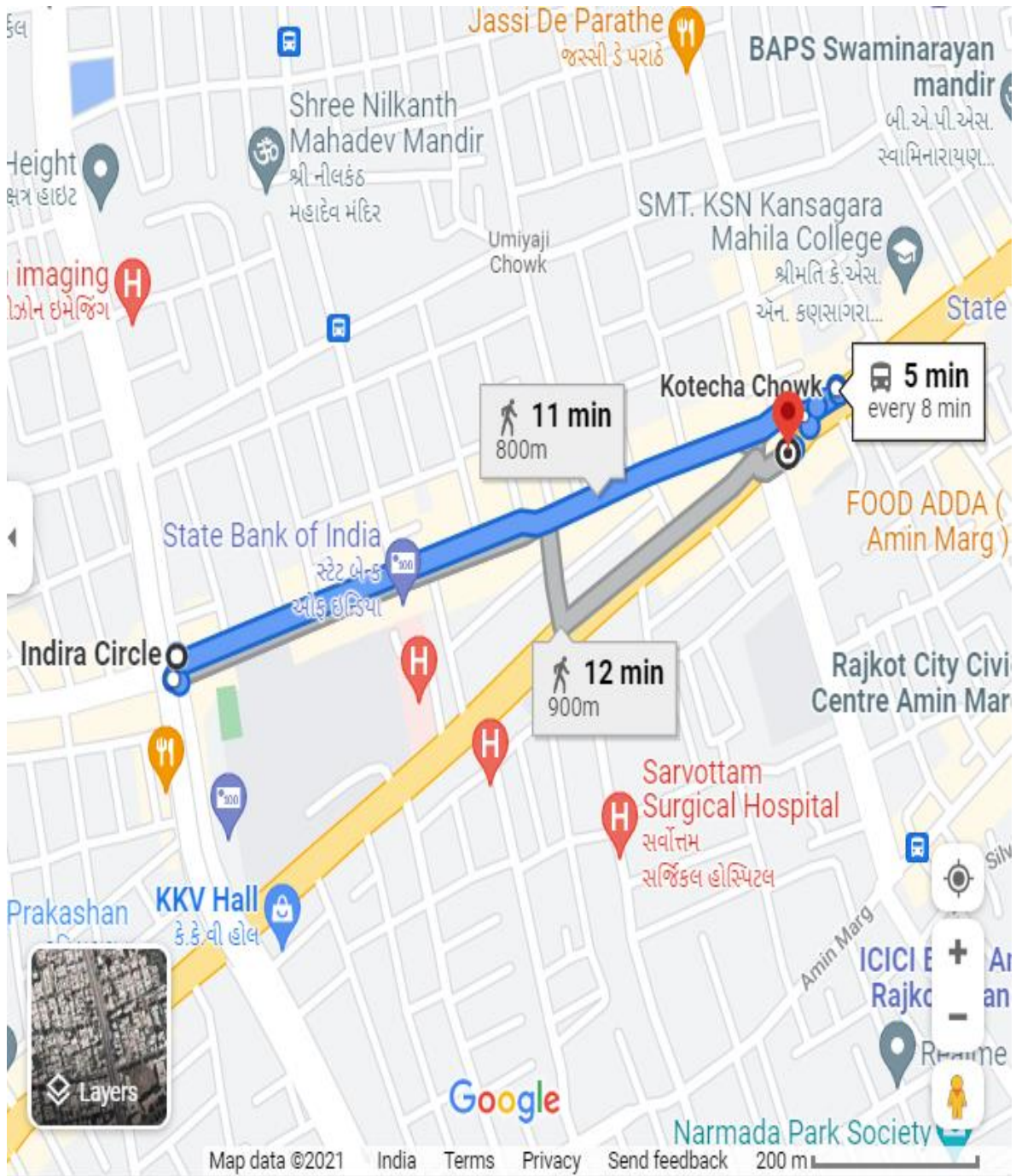


Fig 2.2 study areas – indira circle to kotecha circle

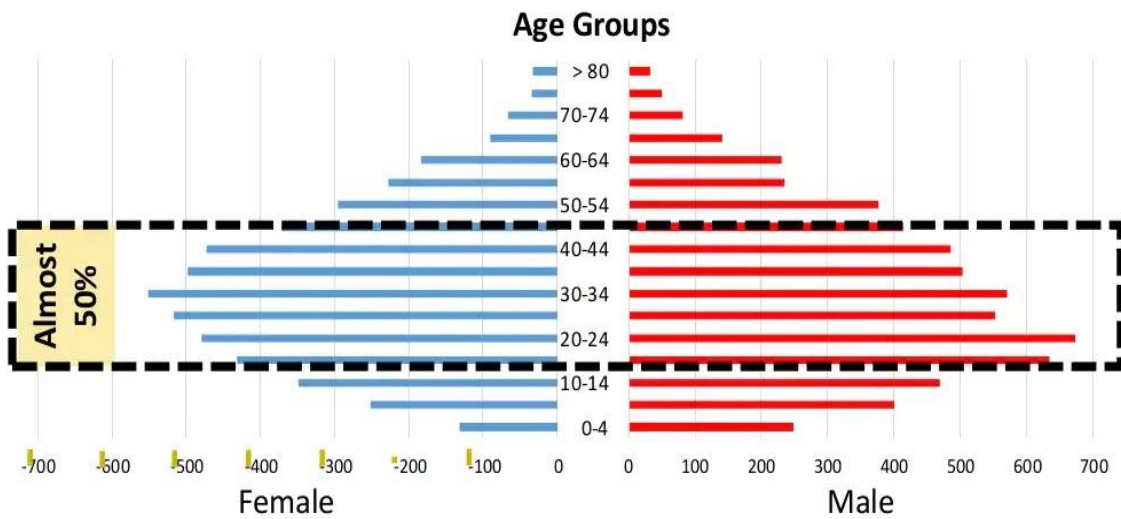


Fig 2.3 indira circle intersection



Fig 2.4 kotecha circle intersection

# CITY: DEMOGRAPHY



With a major chunk of the population in the productive **20-45 age** bracket, Rajkot has the chance to grow even faster.

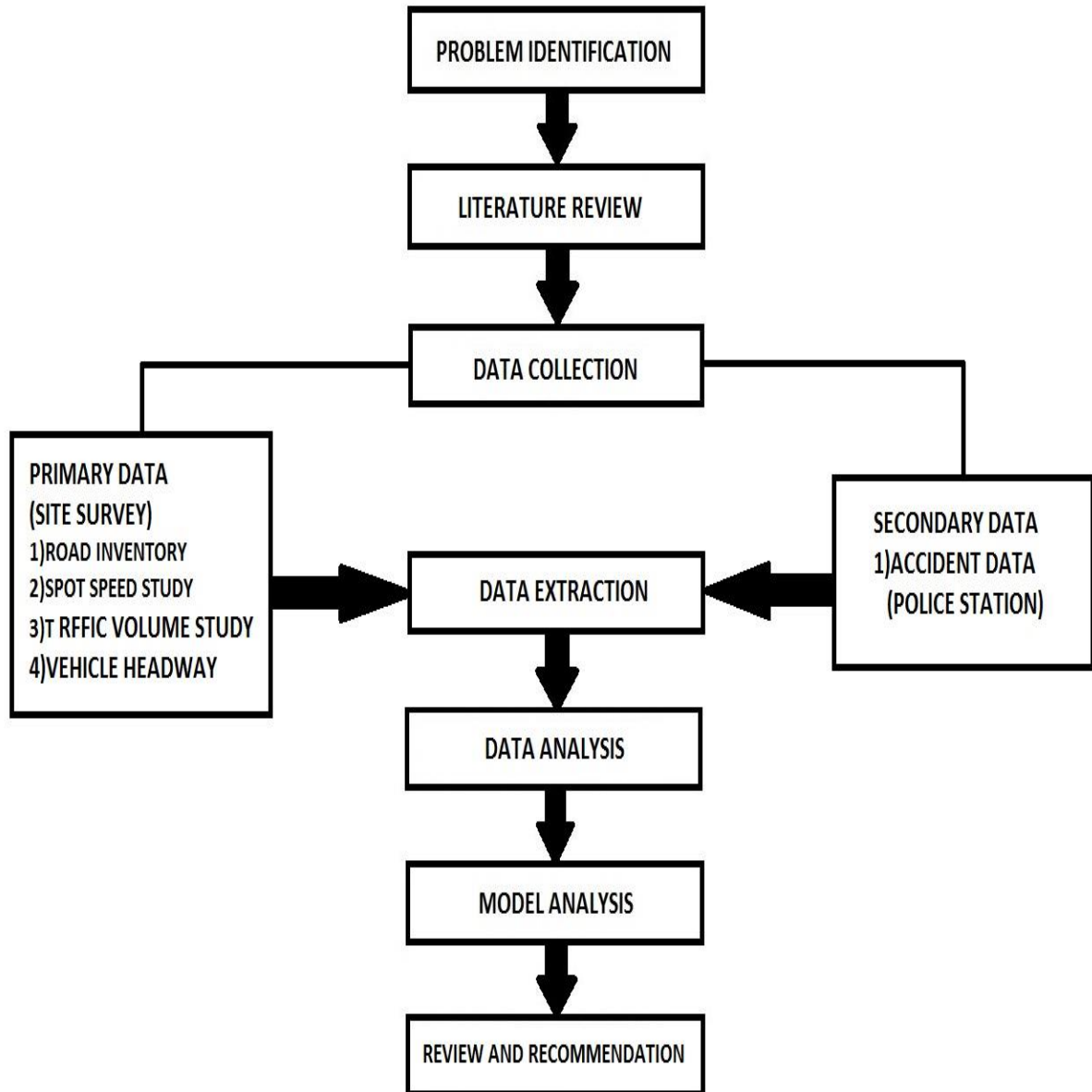
Source: (RMC, 2009)

Fig 2.5 Rajkot city: Demography



## CHAPTER 3 METHODOLOGY

### 3.1 METHODOLOGY CHART



First and initially, we must determine the study area and location. Then we have to figure out what the issues are in the case study we've chosen. In the problem identification we have to describe how things should be work and also explain the problem of the study and state why it matters. Then we need to figure out what the study's goal is. It describes what a project is supposed to accomplish.

After deciding on the objectives, we must determine the study's scope. The study's scope indicates the extent to which the research area will be investigated in the work and the parameters that will be used to perform it. To put it another way, you'll have to identify what the study will cover and what it will focus on. Data collection is the process of gathering and processing data on certain variables in a system, allowing one to answer pertinent questions and assess outcomes.

In all fields of study, including the physical and social sciences, the humanities, and education, data gathering is an important part of the research process. The study of the dynamic dynamics of systems in the frequency domain is known as modal analysis. Measurement of the vibration of a car's body when attached to a shaker or the noise pattern in a room when agitated by a loudspeaker is examples.

The term "evaluation research," often known as "programmed evaluation," refers to the goal of the study instead of a specific approach. The systematic assessment of the worth or merit of time, money, effort, and investments made in order to achieve a goal is called evaluation study.

### 3.2 TIME TO COLLISION

In safety assessments, the time-to-collision concept has been used as a safety indicator. Hayward, a US researcher, proposed the time-to-collision (TTC) concept in 1971. A TTC value at an instant  $t$  is defined as the time that remains until a collision between two vehicles would have occurred if the collision course and speed difference are maintained.

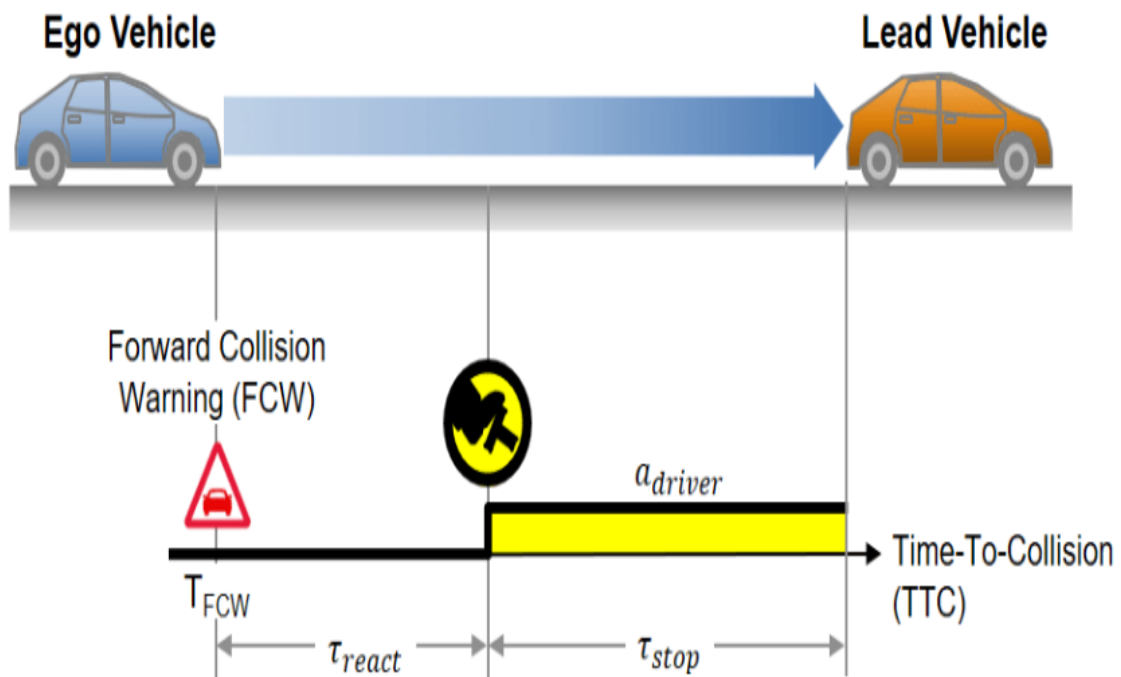
TTC is a common visual element for avoiding obstacles that is usually utilized in the research of driving behavior and the assessment of potential conflicts. TTC refers to the following driver's perception of the LV's safety in a driving environment. It is defined as "the time required for two vehicles to collide if they continue at their current speed and on the same path.

Deceleration and acceleration are strongly linked to TTC, according to various psychological principles, data, and investigations. A smaller TTC, on the one hand, results in a faster foot movement to the brake pedal and a larger deceleration; on the other hand, a negative TTC (which means the leader's speed is faster than the follower's) results in a faster foot movement to the brake pedal and a smaller deceleration.

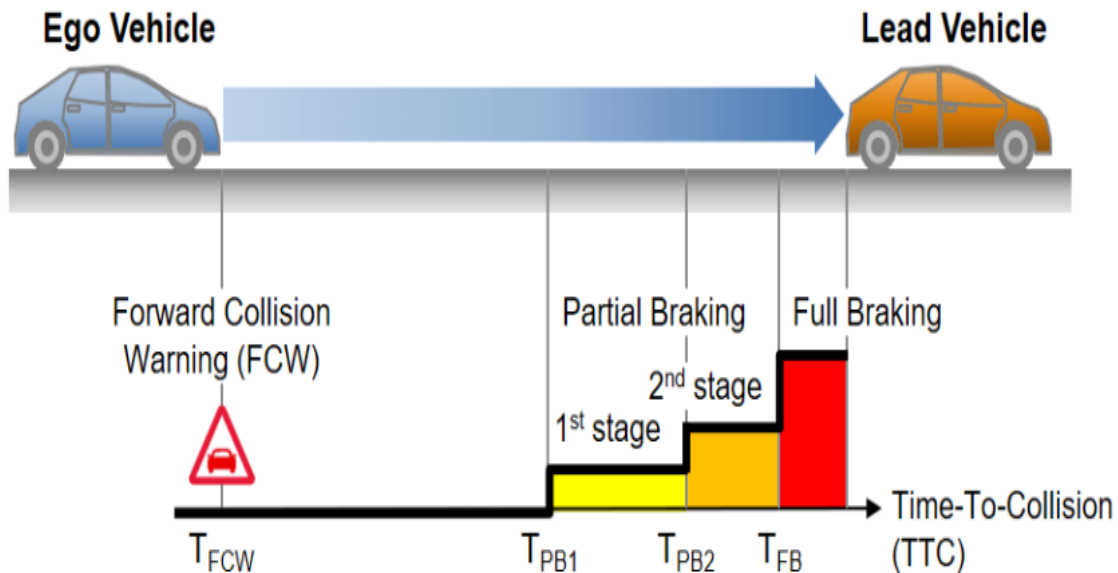
TTC can be perceived using one of two cognitive processes. Separate perceptions of distance and relative velocity are one technique. The other strategy is to compute the apparent dilation of the approaching vehicle from a distant focus of expansion using optic flow fields.

TTC is calculated by dividing the distance between a following and a leading vehicle by the relative velocity of two consecutive vehicles at a given period.  $TTC_i(t)$  is the TTC of following vehicle  $i$  at time  $t$ ,  $x_{i-1}(t)$  and  $x_i(t)$  is the position of leading vehicle  $i-1$  and following vehicle  $i$  at time  $t$ , Respectively,  $v_{i-1}(t)$  and  $v_i(t)$  is the speed of leading vehicle  $i-1$  and following vehicle  $i$  at time  $t$ , respectively, and  $V_{Li-1}$  is the vehicle length leader  $i-1$ , can be calculated with:

$$TTC_i(t) = \begin{cases} \frac{x_{i-1}(t) - x_i(t) - VL_{i-1}}{v_i(t) - v_{i-1}(t)} & \text{if } v_i(t) > v_{i-1}(t) \\ \infty & \text{otherwise} \end{cases}$$



3.1 figure of time to collision



3.2 figure of time to collision

A collision is sometimes unavoidable. There are several things you may do in those situations to reduce crash damage to your vehicle, yourself, and your passengers. When driving, you should always be aware of your surroundings and maintain a safe distance from other vehicles.

This allows you to recognize areas where you can move your car to avoid a direct collision. You should slow down your vehicle as much as possible if you can't identify an escape route and are certain to collide with something. If colliding with something else is your only way to avoid colliding with another vehicle, choose the object that would cause the least amount of harm.

## **CHAPTER 4 DATA COLLECTION**

### **4.1 GENERAL**

The field data presented in this research came from a video study taken in Rajkot between the kotecha and indira circles (Gujarat). The urban road process works from Kotecha circle to Indira circle and is 1 kilometer long. On January 23rd to 27th (Sunday to Thursday), 2022, data was collected with various traffic conditions from 7:00 a.m. to 10:00 a.m. (including morning peak hour) and from 17:00 p.m. to 20:00 p.m. (including evening peak hour).

The study locations are chosen from three options. Location 1 is on the kotecha circle's entry side, location 2 is on the indira circle's exit side, and location 3 is midway between the kotecha circle and the indira circle. It is simple to obtain traffic data, such as speed, traffic volume, and time occupancy, using video image processing technologies.

The dataset for calculating TTC is obtained in a similar method, and includes speed, headway, vehicle length, and classification of vehicle types.

#### **4.1.1 TYPES OF SURVEY**

- 1) **Road inventory survey:** This is a detailed survey that may be used to examine the profile of the roads in the research area, including elements such as road/Pavement widths, road pavement kinds, street lighting, luminosity, drain types, encroachments, presence of vendors/street furniture, bus stops, and so on.
- 2) **Traffic volume survey:** The word "traffic volume study" is also known as "traffic flow survey" or "traffic survey." It is defined as a process for determining the volume of traffic moving on roadways in a specific section at a specific time.
- 3) **Spot speed survey:** Spot speed studies are used to determine the distribution of vehicle speeds in the traffic stream at a specific location on the roadway. This is achieved by collecting the vehicle's speed at the given location.
- 4) **Vehicle headway:** The distance or duration between vehicles in a transit system, measured in space or time, is known to as headway. The minimum headway is the shortest distance or time that a system can achieve without reducing vehicle speed.

- 5) **Accident analysis:** Accident analysis is carried out to determine the reason or causes of an accident (which might have a single or multiple outcomes) in order to prevent such accidents in the future. It is a component of accident or event investigation.

#### 4.2 ROAD INVENTORY SURVEY

Road Inventory Survey				
Sr no.	Variables	Avaiibility (Yes/no)	Descreption	
1	Straight Road length	yes	1 km strech	
2	Number of curve	yes		
3	Street lights	yes		
4	Intersection	yes		
5	Pedestrain way	yes		
6	Bus stop	yes		
7	Road condition	yes		
8	Traffic police stand	yes		
9	Number of signs	yes		
10	Number of signals	yes		
11	Types of vehicles use the road	yes	2 intersection are there: 1) kotecha circle, 2) indira circle	
12	Width of road	yes		
13	School near the road	no		
14	Trees	yes		
15	Bridge	no		
16	Horizontal curve	yes		
17	Vertical curve	no		
18	Barriers	yes		
19	Drianage facillities	yes		
20	Bicycle facilities	no		
21	Speed limit	yes	Good road condition	
22	Pavement markings	yes		
23	Lane type	yes		
24	Railroad crossing	no		
25	Mail boxes	no		
26	side walk	yes		
27	Island	yes		
				Mix traffic (heavy vehicles restricted)
			Between 30 to 40 kmph	
			Two lane	

### 4.3 TRAFFIC VOLUME STUDY

**KOTECHA TO INDIRA (TIME – 8:00 TO 9:00 AM)**

**( DATE - 25/01/2022 ) TUESDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	6	34	2	0	0	0	0	0	0
2	4	20	7	0	0	0	0	3	0
3	9	21	4	0	1	0	1	0	0
4	6	18	7	0	2	0	0	0	0
5	8	25	4	0	0	0	1	0	0
6	4	19	11	0	1	0	0	0	0
7	5	27	6	0	0	0	0	0	1
8	5	23	8	0	0	0	0	0	1
9	4	20	2	0	0	0	0	0	1
10	9	22	7	0	1	0	0	0	1
11	5	25	4	0	1	1	1	1	0
12	6	24	5	0	0	0	0	0	0
13	7	23	6	0	1	0	0	0	1
14	3	25	8	0	1	0	0	0	0
15	5	17	5	0	0	0	0	0	2
16	4	28	6	0	1	0	0	1	0
17	5	23	6	0	0	0	0	0	0
18	8	20	3	0	0	0	0	0	2
19	9	18	6	0	0	0	0	0	0
20	9	20	3	0	0	0	1	0	0
21	9	25	7	0	0	0	0	0	0
22	8	26	2	0	0	0	0	0	0
23	7	19	3	0	0	0	0	3	0
24	6	22	9	0	0	0	0	1	0
25	10	24	6	0	1	1	0	1	1
26	10	27	8	0	0	0	1	0	1
27	9	22	5	0	1	0	0	0	1
28	2	32	9	0	0	0	0	0	0
29	4	28	4	0	0	0	0	0	2
30	6	20	8	0	0	0	1	0	0



31	6	20	9	0	0	0	0	1	0	
32	11	17	6	1	2	0	1	0	0	
33	4	19	2	0	0	0	0	3	1	
34	6	24	4	0	0	0	0	0	0	
35	4	25	9	0	0	0	0	0	1	
36	6	14	4	0	0	0	0	0	0	
37	5	16	7	0	1	0	0	0	1	
38	5	21	6	0	1	0	0	0	0	
39	4	22	9	0	0	0	0	0	1	
40	9	24	5	0	0	0	0	2	0	
41	6	28	5	0	1	0	0	2	3	
42	4	27	4	0	0	0	0	1	0	
43	6	20	9	0	0	0	0	0	0	
44	5	23	9	0	0	0	0	0	1	
45	1	28	6	0	0	0	0	1	1	
46	5	20	8	0	0	0	2	0	2	
47	5	31	10	0	0	0	0	0	2	
48	9	33	9	0	0	0	0	0	1	
49	5	29	3	0	0	0	0	0	1	
50	5	29	7	0	0	0	0	1	1	
51	4	29	9	0	0	0	0	0	1	
52	8	24	4	1	0	0	0	0	1	
53	9	13	7	0	0	1	0	0	0	
54	10	19	2	0	1	0	0	3	2	
55	8	23	9	1	2	0	0	0	1	
56	6	18	5	0	0	0	1	0	1	
57	11	26	5	0	0	0	0	0	0	
58	5	14	2	0	0	0	0	1	2	
59	7	22	3	1	0	0	1	0	1	
60	9	24	9	0	0	0	0	0	0	
TOTAL	380	1379	357	4	19	3	11	25	39	2217

**INDIRA TO KOTECHA (TIME – 6:00 TO 7:00 PM)****( DATE - 25/01/2022 ) TUESDAY**

MIN	car/jeep/van	two wheeler	rickshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	13	21	1	0	0	0	0	1	0
2	0	0	0	0	0	0	0	0	0
3	10	43	12	0	0	0	0	1	1
4	19	30	6	1	1	0	0	0	1
5	5	17	3	0	0	0	0	8	0
6	5	34	8	0	0	0	0	5	1
7	14	21	3	0	0	0	0	1	0
8	8	11	3	0	0	0	0	0	0
9	0	20	5	0	0	0	0	0	0
10	16	34	12	0	1	0	0	2	0
11	6	18	2	0	0	0	0	0	0
12	0	3	0	0	0	0	0	0	0
13	9	29	12	0	2	0	0	0	0
14	7	33	7	0	0	0	0	1	0
15	5	5	0	0	0	0	0	0	1
16	10	59	7	0	1	0	0	2	2
17	5	10	6	0	1	0	0	0	0
18	3	5	0	0	0	0	0	3	1
19	3	28	6	0	0	0	0	1	0
20	7	23	6	0	2	0	0	1	1
21	5	20	1	0	0	0	0	1	0
22	0	5	3	0	0	0	0	5	0
23	16	59	4	0	0	0	0	1	0
24	7	16	7	0	1	0	0	7	1
25	0	3	0	0	0	0	0	3	0
26	12	34	8	1	11	0	0	0	0
27	15	31	4	0	0	0	0	3	0
28	0	7	1	0	0	0	0	4	0
29	7	37	11	0	0	0	0	1	0
30	8	23	5	0	1	0	0	1	3

31	8	7	3	0	0	0	0	2	3	
32	1	26	4	0	0	0	0	0	0	
33	13	47	16	0	0	0	0	0	2	
34	8	12	7	0	0	0	0	4	0	
35	4	6	2	0	0	0	0	1	0	
36	17	53	11	0	0	0	0	2	0	
37	1	23	7	0	1	0	0	1	0	
38	1	3	2	0	0	0	0	5	0	
39	8	40	5	0	0	0	1	1	3	
40	17	33	1	0	0	0	0	2	0	
41	8	16	6	0	1	0	1	2	1	
42	8	25	4	0	0	0	0	7	0	
43	19	42	2	0	1	0	1	0	2	
44	7	15	9	0	0	0	0	5	0	
45	6	5	6	0	0	0	1	2	0	
46	14	52	4	0	1	0	0	0	2	
47	9	18	3	0	0	0	0	2	0	
48	5	4	4	0	0	0	0	1	0	
49	12	39	6	0	1	0	0	0	1	
50	14	41	5	0	1	0	0	2	2	
51	6	10	1	0	0	0	0	6	0	
52	7	36	3	0	0	0	0	4	1	
53	14	45	8	0	0	1	1	0	0	
54	3	10	3	0	0	0	0	0	0	
55	5	9	4	0	0	0	0	0	0	
56	19	55	6	0	0	0	0	1	0	
57	4	15	7	0	0	0	2	1	0	
58	4	2	2	0	0	0	0	5	0	
59	18	60	3	0	0	0	0	2	0	
60	10	28	4	0	1	0	0	1	0	
TOTAL	453	1450	291	2	28	1	7	111	29	2372

**INDIRA TO KOTECHA (TIME – 8:00 TO 9:00 AM)****( DATE - 25/01/2022 ) TUESDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	10	28	8	0	0	0	0	0	0
2	9	25	5	0	0	0	0	0	0
3	6	26	6	0	0	0	0	0	2
4	8	24	9	0	1	0	0	0	0
5	9	28	9	0	0	0	1	4	1
6	2	29	2	0	0	0	0	0	1
7	5	27	9	0	2	1	0	0	0
8	8	30	6	0	0	0	0	1	0
9	9	32	9	1	0	0	0	0	0
10	10	34	9	0	1	0	1	0	1
11	12	31	9	0	0	0	0	0	0
12	14	30	9	0	0	0	0	0	0
13	10	29	9	0	0	0	0	0	2
14	8	26	4	0	0	0	0	2	0
15	9	30	9	0	2	0	0	0	0
16	7	25	3	0	1	0	0	0	1
17	6	24	7	0	0	0	0	0	0
18	8	28	9	0	1	0	1	0	0
19	9	21	9	0	0	0	0	0	2
20	9	29	9	0	0	0	0	1	0
21	10	25	6	0	0	0	0	0	0
22	9	27	4	0	0	0	0	0	0
23	7	24	9	0	2	0	0	0	0
24	8	15	2	0	0	0	0	0	1
25	6	17	5	0	0	0	0	1	0
26	9	9	6	0	1	0	0	0	0
27	9	20	9	0	0	0	0	0	0
28	9	18	8	0	0	0	1	0	0
29	8	25	9	0	0	1	0	0	0
30	9	27	4	0	0	0	0	0	1

31	9	13	9	0	0	0	0	1	2	
32	8	11	9	0	1	0	0	0	0	
33	7	8	8	0	0	0	0	0	0	
34	4	19	9	0	0	1	1	0	0	
35	9	16	9	0	0	0	1	0	0	
36	9	24	9	0	1	0	1	0	1	
37	8	15	8	0	0	0	0	10	0	
38	5	17	8	1	0	0	0	0	0	
39	4	24	9	0	0	0	1	0	0	
40	9	28	5	0	1	0	0	1	0	
41	3	23	7	1	0	0	2	0	1	
42	2	15	5	0	0	0	0	2	0	
43	7	18	9	0	1	0	1	0	0	
44	6	25	3	0	0	1	0	1	0	
45	2	17	4	0	0	0	0	0	0	
46	9	16	5	0	0	0	1	2	0	
47	5	22	9	0	0	0	0	1	0	
48	4	20	4	0	0	0	0	0	2	
49	6	24	7	0	0	0	1	1	0	
50	9	19	8	1	0	0	0	1	0	
51	6	17	9	0	1	0	0	0	0	
52	4	13	4	0	0	0	0	0	1	
53	8	14	9	0	0	1	1	0	0	
54	3	10	6	0	0	0	0	0	0	
55	9	26	2	0	0	0	1	0	0	
56	4	28	9	1	0	0	0	1	0	
57	10	24	4	0	0	0	0	0	1	
58	5	17	8	0	1	0	0	0	1	
59	7	14	5	0	0	1	0	0	1	
60	6	11	9	0	0	0	1	1	0	
TOTAL	439	1311	420	5	17	6	16	31	22	2267

**KOTECHA TO INDIRA (TIME – 8:00 TO 9:00 AM)****( DATE - 25/01/2022 ) TUESDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	4	31	1	0	1	0	0	3	0
2	3	3	2	0	0	0	0	1	0
3	4	38	8	0	1	0	0	1	0
4	9	26	3	0	1	0	1	0	2
5	1	11	1	0	4	0	0	0	2
6	5	30	2	0	0	0	0	5	0
7	13	30	10	0	1	1	0	5	0
8	3	26	3	0	1	0	0	0	1
9	4	13	1	0	0	0	1	1	0
10	15	38	5	0	0	0	1	1	1
11	6	23	2	0	1	0	0	3	1
12	1	8	0	0	0	0	0	1	0
13	11	39	6	0	0	0	0	0	0
14	14	35	6	1	0	0	0	0	1
15	0	10	0	0	0	0	1	3	0
16	5	35	4	0	0	0	0	0	0
17	11	25	7	0	1	0	1	2	0
18	0	9	2	0	1	0	0	3	0
19	2	21	1	0	0	0	1	1	0
20	15	30	6	0	0	0	1	4	0
21	9	16	7	0	4	0	0	6	1
22	4	8	2	0	3	0	1	8	0
23	8	38	14	0	0	0	2	0	0
24	13	31	5	0	1	0	1	5	0
25	3	8	1	0	0	0	1	0	0
26	9	35	6	0	0	0	0	2	0
27	16	33	6	0	0	0	2	1	1
28	2	5	0	0	0	0	0	6	0
29	3	38	6	0	0	0	0	3	0
30	13	31	5	0	0	0	0	0	0

31	3	13	4	0	0	0	0	3	0	
32	4	16	1	0	0	0	0	4	0	
33	13	35	7	0	0	0	0	0	0	
34	6	20	2	0	1	0	0	5	0	
35	1	15	1	0	0	0	1	9	0	
36	8	32	10	0	0	0	2	1	0	
37	15	33	1	0	0	0	1	2	0	
38	5	1	1	0	0	0	0	4	0	
39	5	72	7	0	0	0	0	3	3	
40	5	30	5	0	1	0	1	10	1	
41	3	15	1	0	0	0	0	0	0	
42	8	52	2	0	0	0	2	1	0	
43	10	35	5	0	1	0	2	1	0	
44	1	10	1	0	1	0	0	6	0	
45	2	43	5	0	0	0	3	3	0	
46	12	41	8	0	0	0	1	3	2	
47	2	12	5	0	1	0	0	6	0	
48	5	21	2	0	0	0	0	0	0	
49	16	20	5	0	0	0	1	2	0	
50	8	8	2	0	1	0	1	13	1	
51	6	9	2	0	0	0	2	3	0	
52	8	57	12	0	0	0	0	3	0	
53	8	19	3	0	0	0	1	4	0	
54	1	10	1	0	3	0	0	8	0	
55	8	43	6	0	0	0	0	3	0	
56	12	25	6	0	0	0	0	12	1	
57	5	4	0	0	0	0	0	0	2	
58	7	32	3	0	0	0	3	15	0	
59	11	25	9	0	0	0	0	6	0	
60	4	11	1	0	1	0	0	0	0	
TOTAL	408	1483	240	1	30	1	35	195	20	2413

**KOTECHA TO INDIRA (TIME – 8:00 TO 9:00 AM)****( DATE - 24/01/2022 ) MONDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	4	21	4	1	1	0	0	0	0
2	6	25	7	0	0	0	0	0	0
3	4	25	4	0	2	0	0	2	0
4	3	32	2	1	1	1	0	0	0
5	2	52	4	0	0	0	0	0	0
6	6	12	5	0	0	0	0	0	1
7	5	15	7	0	0	0	1	0	0
8	2	23	10	0	0	0	0	0	0
9	7	25	3	0	0	0	0	0	0
10	6	25	5	0	0	0	1	0	0
11	5	27	6	0	1	0	1	0	2
12	3	15	7	0	0	0	1	0	0
13	5	21	8	1	1	0	0	0	0
14	6	24	5	0	0	1	0	0	0
15	4	15	4	0	0	0	0	0	1
16	5	14	3	0	1	0	0	0	0
17	2	12	6	0	0	0	0	0	0
18	5	13	7	0	1	0	0	1	0
19	4	18	8	0	0	0	0	0	0
20	8	21	6	0	0	0	0	0	0
21	6	24	4	0	0	0	0	0	0
22	5	35	3	0	1	1	1	0	0
23	13	21	5	0	0	0	0	0	0
24	3	35	8	0	0	0	0	1	0
25	2	12	6	0	0	0	0	2	1
26	4	23	5	0	0	0	0	0	0
27	5	16	4	0	2	0	1	0	1
28	6	11	3	0	0	0	1	0	0
29	6	23	5	0	0	0	0	0	2
30	7	21	7	0	1	0	0	0	0



31	4	15	6	0	0	0	0	0	1	
32	3	32	5	1	1	0	0	0	0	
33	2	11	3	0	0	0	0	0	1	
34	4	34	3	0	0	0	0	0	0	
35	5	21	5	0	0	1	0	0	0	
36	6	23	6	0	1	0	0	0	0	
37	7	33	7	0	0	0	0	1	0	
38	4	21	8	1	1	0	0	0	0	
39	5	36	7	0	0	0	0	0	0	
40	3	23	5	0	0	0	0	1	0	
41	6	26	4	0	0	0	0	2	1	
42	5	24	8	0	2	0	0	0	0	
43	5	22	7	0	0	0	0	0	0	
44	7	30	5	0	0	0	0	0	0	
45	8	28	4	0	0	0	0	0	0	
46	6	22	3	0	0	0	0	0	0	
47	9	20	3	0	0	0	0	0	2	
48	4	40	8	0	0	0	0	0	2	
49	5	31	4	0	0	0	0	0	1	
50	7	22	2	0	0	0	0	0	0	
51	7	25	10	0	1	0	0	0	0	
52	6	27	2	1	0	0	0	0	0	
53	5	32	4	0	0	0	0	1	0	
54	10	31	7	0	1	0	0	0	0	
55	5	39	8	1	1	0	0	0	0	
56	5	24	6	0	0	0	1	0	2	
57	3	21	5	0	0	0	0	3	0	
58	3	25	3	0	0	0	0	0	0	
59	5	21	2	1	1	0	1	0	0	
60	3	36	4	0	0	0	1	0	1	
<b>TOTAL</b>	<b>306</b>	<b>1451</b>	<b>311</b>	<b>8</b>	<b>21</b>	<b>4</b>	<b>10</b>	<b>14</b>	<b>19</b>	<b>2144</b>

**INDIRA TO KOTECHA (TIME – 6:00 TO 7:00 PM)****( DATE - 24/01/2022 ) MONDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	10	24	6	0	1	0	0	2	0
2	15	16	4	1	0	0	0	0	2
3	2	38	2	0	0	0	0	2	1
4	0	29	10	1	1	0	1	0	1
5	6	14	5	0	0	0	0	2	0
6	4	17	8	0	1	0	0	5	0
7	12	24	3	1	0	0	0	1	0
8	3	28	2	0	0	0	0	0	0
9	5	27	0	0	0	0	0	1	0
10	13	16	12	1	1	0	1	2	0
11	7	20	11	0	0	0	0	1	1
12	6	19	3	0	0	0	0	0	0
13	0	16	5	0	2	0	0	0	0
14	5	21	7	0	0	0	0	1	0
15	7	15	9	1	0	0	0	1	1
16	8	24	3	0	1	0	0	2	1
17	11	29	2	0	1	0	0	0	1
18	16	20	6	0	0	0	0	2	1
19	4	15	4	0	0	0	0	12	0
20	8	21	9	0	2	0	0	1	1
21	0	26	7	0	0	0	0	1	1
22	15	18	5	0	0	0	0	1	0
23	7	15	3	0	2	0	0	1	0
24	9	16	5	0	1	0	0	2	0
25	4	28	7	0	0	0	0	3	0
26	7	27	4	1	2	0	0	2	0
27	14	16	2	0	0	0	0	2	1
28	2	28	2	0	0	1	0	3	0
29	0	25	0	0	0	0	1	1	0
30	17	17	6	0	1	0	0	1	1

31	13	26	13	0	0	0	0	4	2	
32	3	18	2	0	0	1	0	5	0	
33	16	27	5	0	0	0	0	0	2	
34	4	21	7	0	1	0	0	3	1	
35	8	11	8	0	0	0	0	1	0	
36	7	27	6	0	0	0	0	2	0	
37	6	41	5	0	1	0	0	1	0	
38	4	38	3	0	0	0	0	5	1	
39	3	30	2	0	0	0	1	3	0	
40	14	14	6	0	1	0	0	2	0	
41	6	19	6	0	1	0	1	4	1	
42	4	15	8	0	0	0	0	2	0	
43	4	16	9	0	1	0	1	0	1	
44	5	24	6	0	0	0	0	1	0	
45	3	18	5	0	0	0	1	2	0	
46	13	16	4	0	1	0	0	3	2	
47	2	13	4	0	0	0	0	2	0	
48	6	24	3	0	2	0	0	1	1	
49	4	32	2	0	1	0	0	0	2	
50	15	17	1	0	1	0	0	2	2	
51	13	15	4	0	0	0	1	6	2	
52	12	30	5	1	0	0	0	4	1	
53	3	25	6	0	0	1	1	2	0	
54	6	28	7	0	0	0	0	0	1	
55	8	25	8	0	2	0	0	0	2	
56	9	16	5	0	0	0	0	1	0	
57	3	35	7	0	0	0	0	1	0	
58	6	30	4	0	0	0	0	5	0	
59	5	29	3	0	2	0	0	2	2	
60	13	26	8	0	1	0	0	1	0	
TOTAL	424	1355	314	7	31	3	9	117	36	2296

**INDIRA TO KOTECHA (TIME – 8:00 TO 9:00 AM)****( DATE - 24/01/2022 ) MONDAY**

MIN	car/jeep/van	two wheeler	rikshaw	truck	bus	tractor	cycle	pedestrain	other vehicle
1	3	29	8	0	0	1	0	0	0
2	4	26	7	0	0	0	0	0	0
3	4	14	5	0	0	0	0	0	2
4	5	16	6	0	0	0	0	0	0
5	6	20	7	0	0	0	1	0	0
6	6	29	8	0	0	0	0	0	0
7	7	34	6	0	0	1	0	0	0
8	9	23	5	0	0	0	0	1	0
9	8	37	3	0	0	0	0	0	0
10	7	28	4	0	1	0	1	0	2
11	7	34	5	0	0	0	0	0	0
12	10	21	6	0	1	0	0	0	0
13	9	28	8	0	0	0	0	0	0
14	9	21	7	0	0	0	0	0	0
15	8	28	6	0	2	0	0	0	1
16	5	17	5	0	1	0	0	0	1
17	10	15	6	0	0	0	0	0	0
18	7	26	7	0	1	0	0	0	0
19	9	28	7	0	0	0	0	0	0
20	5	14	6	0	0	0	0	0	0
21	6	7	5	0	1	0	0	0	0
22	4	24	3	0	0	0	0	0	0
23	3	21	4	0	2	0	1	0	0
24	4	8	5	0	0	0	0	0	1
25	5	9	6	0	1	1	0	0	0
26	7	24	7	0	1	0	0	0	0
27	6	30	8	0	0	0	0	0	0
28	5	24	7	0	0	0	1	0	0
29	3	36	5	0	1	1	0	0	0
30	3	16	2	0	0	0	0	0	1

31	4	32	3	0	0	0	0	1	0	
32	5	22	3	0	2	0	0	0	0	
33	7	32	5	0	0	0	1	1	0	
34	6	15	6	0	0	1	0	0	0	
35	5	32	7	0	0	0	0	4	0	
36	3	31	9	0	0	0	0	0	0	
37	4	25	6	0	0	0	0	0	0	
38	4	22	6	1	0	0	0	4	2	
39	12	21	5	0	1	0	2	2	0	
40	6	25	4	0	1	0	0	0	0	
41	8	28	2	1	1	0	1	0	0	
42	5	14	3	0	0	0	0	0	0	
43	4	18	3	0	0	0	0	0	0	
44	5	20	4	0	0	0	0	0	0	
45	6	22	5	0	0	0	2	2	0	
46	11	25	6	1	0	0	0	0	0	
47	4	16	4	0	0	1	0	0	0	
48	2	21	2	0	0	0	0	0	1	
49	3	24	3	0	1	0	0	1	0	
50	5	21	5	0	0	0	0	0	0	
51	4	30	6	0	2	0	0	0	0	
52	7	24	7	0	0	0	0	0	0	
53	7	21	5	0	0	0	0	0	0	
54	5	24	8	0	0	1	0	0	0	
55	10	16	6	0	2	0	0	0	0	
56	4	13	2	1	0	0	0	0	0	
57	5	16	3	0	0	0	0	0	0	
58	8	21	8	0	0	0	1	0	1	
59	4	14	6	0	0	0	0	0	0	
60	6	29	5	0	1	1	0	0	1	
TOTAL	353	1361	316	4	23	8	11	16	13	2105

**KOTECHA TO INDIRA (TIME – 6:00 TO 7:00 PM)****( DATE - 24/01/2022 ) MONDAY**

MIN	car/jeep/van	two wheeler	rikshaw	truck	bus	tractor	cycle	pedestrain	other vehicle
1	7	18	2	0	1	0	0	3	0
2	6	24	3	0	0	0	0	1	0
3	4	14	6	0	1	0	0	0	0
4	2	15	1	0	0	0	1	0	2
5	4	23	5	0	0	0	0	0	0
6	5	26	4	0	0	0	0	5	0
7	8	25	3	0	1	1	0	6	0
8	7	29	1	0	1	0	0	0	0
9	5	12	3	1	0	0	0	1	1
10	2	15	4	0	0	0	1	0	2
11	3	21	6	0	1	0	0	3	1
12	6	23	6	0	0	0	0	0	2
13	14	16	8	0	1	0	1	0	0
14	15	20	8	1	0	0	0	0	1
15	24	15	0	0	0	0	1	3	1
16	15	16	7	0	0	0	0	0	0
17	0	14	6	0	1	0	1	2	2
18	2	27	6	0	1	0	0	3	0
19	3	27	5	0	0	0	1	0	2
20	4	21	3	0	0	0	1	4	1
21	6	22	7	0	0	0	0	6	1
22	7	26	2	1	3	0	1	8	1
23	2	26	3	0	0	0	2	0	0
24	13	15	4	0	1	0	1	5	2
25	3	25	5	0	0	0	1	0	0
26	5	17	7	0	0	0	0	2	1
27	14	27	0	0	0	0	2	3	1
28	5	19	6	0	0	0	2	4	0
29	2	22	5	0	0	0	0	3	2
30	13	24	2	0	0	0	0	6	1

31	15	15	2	0	1	0	1	6	0	
32	11	17	4	0	0	0	0	5	0	
33	7	25	7	0	0	0	0	0	0	
34	5	28	5	0	1	0	0	2	1	
35	3	15	1	0	0	0	1	9	0	
36	16	12	12	0	0	0	1	3	0	
37	7	11	6	0	2	0	1	2	1	
38	4	32	2	0	0	1	0	5	0	
39	3	48	7	0	0	0	0	3	2	
40	12	39	4	0	1	0	1	6	1	
41	6	31	6	0	0	0	0	0	0	
42	5	47	8	0	0	0	0	1	1	
43	7	34	6	0	1	0	0	5	0	
44	6	22	4	0	1	1	0	6	0	
45	5	33	3	0	0	0	3	4	0	
46	3	43	11	0	0	0	1	3	1	
47	11	21	2	0	1	0	2	2	0	
48	4	35	6	0	0	0	0	0	2	
49	7	32	3	0	2	1	1	2	0	
50	6	36	8	0	1	0	1	15	1	
51	3	31	7	0	0	0	0	0	2	
52	4	32	6	0	0	0	0	3	0	
53	5	26	5	0	0	0	1	2	1	
54	6	32	2	0	3	0	0	2	0	
55	4	12	3	0	2	0	0	12	11	
56	11	42	13	0	0	0	0	2	1	
57	2	12	9	0	0	0	0	1	2	
58	4	14	7	0	2	0	2	2	0	
59	7	15	5	0	0	0	0	3	0	
60	4	24	2	0	1	0	0	0	1	
TOTAL	399	1440	288	3	31	4	32	174	52	2423

**KOTECHA TO INDIRA (TIME – 8:00 TO 9:00 AM)****( DATE - 23/01/2022 )SUNDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	2	15	3	0	0	0	0	0	0
2	3	11	5	0	0	0	0	0	0
3	2	13	7	0	0	0	0	0	0
4	2	15	6	0	1	0	0	2	1
5	3	12	3	0	0	1	0	0	0
6	2	16	5	0	0	0	0	0	0
7	3	14	6	0	0	0	1	0	0
8	4	15	3	0	0	0	0	0	1
9	4	14	4	0	0	0	0	0	0
10	3	11	6	0	0	0	0	0	1
11	3	16	3	0	1	0	0	0	0
12	3	11	4	0	0	0	0	0	0
13	5	12	7	0	0	0	0	0	1
14	3	15	4	0	1	0	1	2	0
15	3	13	6	0	0	1	0	0	2
16	5	16	3	0	0	0	0	0	0
17	3	11	5	0	0	0	1	0	0
18	4	14	2	0	0	0	0	0	0
19	2	15	7	0	0	1	0	0	0
20	3	12	3	0	0	0	0	0	0
21	5	14	6	0	0	0	0	0	0
22	2	12	4	0	0	0	0	0	0
23	3	14	3	0	1	0	0	0	0
24	5	19	5	0	0	0	0	0	0
25	4	17	3	0	0	0	0	0	0
26	2	16	5	0	0	0	0	0	0
27	3	21	4	0	0	0	1	0	1
28	1	26	5	0	0	0	0	0	0
29	2	12	3	0	0	0	0	0	2
30	5	18	8	0	0	0	0	0	0



31	2	17	4	0	0	1	0	0	0	
32	4	16	3	1	0	0	0	0	0	
33	5	13	4	0	1	0	0	0	0	
34	3	13	4	0	0	0	0	0	0	
35	5	16	3	0	0	0	0	0	1	
36	8	15	5	0	0	0	0	0	0	
37	5	16	4	0	0	0	0	0	0	
38	8	18	3	0	0	0	0	0	0	
39	6	15	4	0	0	0	0	0	1	
40	2	14	3	0	0	0	0	0	0	
41	6	15	4	1	0	0	0	0	0	
42	3	18	5	0	0	0	0	1	0	
43	8	18	3	0	0	0	0	0	0	
44	6	11	3	0	0	0	0	0	1	
45	5	13	4	0	0	0	0	0	1	
46	4	15	6	0	0	0	0	0	0	
47	9	12	3	0	2	0	0	0	0	
48	7	27	5	1	0	0	0	0	1	
49	4	26	4	0	0	1	0	0	0	
50	6	12	7	0	1	0	0	0	1	
51	9	13	3	0	0	0	0	0	0	
52	7	16	5	0	0	0	0	0	1	
53	2	15	6	0	0	1	0	0	0	
54	7	14	2	0	0	0	0	0	0	
55	3	25	5	0	0	0	0	0	0	
56	8	21	3	0	0	0	0	0	0	
57	3	23	6	0	0	0	0	0	0	
58	7	26	4	0	0	0	0	0	0	
59	5	22	8	0	1	0	0	0	0	
60	4	25	4	0	0	0	0	0	0	
TOTAL	251	960	265	3	9	6	4	5	16	1519

**INDIRA TO KOTECHA (TIME – 6:00 TO 6:00 PM)****( DATE - 23/01/2022 )SUNDAY**

MIN	car/jeep/van	two wheeler	rikshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle
1	14	32	1	0	0	0	0	0	0
2	9	13	0	0	0	0	0	0	1
3	11	15	4	0	0	0	0	0	1
4	9	12	6	0	0	0	0	2	0
5	8	15	3	0	0	0	0	0	0
6	5	43	2	0	0	0	0	0	1
7	9	14	3	0	0	0	0	0	0
8	8	17	3	0	0	0	0	0	0
9	3	14	5	0	2	0	0	0	0
10	9	12	3	0	1	0	0	0	0
11	5	16	2	0	0	0	0	0	0
12	8	15	5	1	0	0	0	0	0
13	9	33	2	0	0	0	0	0	0
14	8	27	7	0	0	0	0	0	0
15	5	26	0	0	0	0	0	0	1
16	6	35	7	0	0	0	0	0	0
17	9	25	6	0	1	0	0	0	0
18	7	20	2	0	0	0	0	0	1
19	4	16	6	0	0	0	0	0	0
20	9	45	6	0	0	0	0	1	1
21	7	21	5	0	0	0	0	0	0
22	9	22	3	0	0	0	0	0	0
23	9	32	4	2	0	0	0	1	0
24	7	15	7	0	2	0	0	0	1
25	9	13	0	0	0	0	0	0	0
26	8	17	8	0	0	0	0	0	0
27	9	25	4	0	0	0	0	0	0
28	11	36	2	0	0	1	0	0	0
29	10	15	4	0	0	0	0	1	0
30	7	27	5	0	1	0	0	0	0

31	5	38	3	0	0	0	0	0	3	
32	11	16	2	0	1	0	0	0	0	
33	4	15	4	0	0	0	0	0	2	
34	11	47	2	0	0	0	0	0	0	
35	9	12	2	0	1	0	0	0	0	
36	4	52	4	0	0	0	0	0	0	
37	11	17	2	0	0	1	1	0	0	
38	5	48	3	0	0	0	0	2	0	
39	7	53	5	0	0	0	0	0	0	
40	5	59	3	0	0	0	0	0	0	
41	12	30	6	0	0	0	0	0	1	
42	9	17	4	0	1	0	0	0	0	
43	7	58	3	0	0	0	0	0	2	
44	3	21	3	0	0	0	0	0	1	
45	11	47	6	0	2	0	0	0	2	
46	10	14	1	0	0	0	0	0	0	
47	8	26	4	1	0	1	0	2	0	
48	4	60	3	0	0	0	0	0	0	
49	6	23	2	0	0	0	2	0	0	
50	11	14	5	0	0	0	0	0	0	
51	9	56	1	0	0	0	0	0	0	
52	8	24	3	0	0	0	0	0	0	
53	6	42	2	0	0	0	1	0	0	
54	3	15	3	0	0	0	0	1	0	
55	8	26	4	0	2	0	2	0	0	
56	6	37	3	0	0	0	0	0	0	
57	2	39	7	0	0	0	0	0	0	
58	11	29	2	0	0	0	1	0	1	
59	10	28	3	0	0	0	0	0	0	
60	6	40	3	0	0	0	0	0	0	
TOTAL	459	1671	213	4	14	3	7	10	19	2400

**INDIRA TO KOTECHA (TIME – 8:00 TO 9:00 AM)****( DATE - 23/01/2022 ) SUNDAY**

MIN	car/jeep/van	two wheeler	rikshaw	truck	bus	tractor	cycle	pedestrain	other vehicle
1	7	22	2	0	0	1	0	0	2
2	4	25	3	0	0	0	0	0	0
3	6	26	7	0	1	0	0	1	0
4	3	21	2	1	0	0	0	0	0
5	6	25	4	0	0	0	0	0	0
6	2	15	6	0	0	0	0	0	1
7	7	14	7	0	0	0	0	0	0
8	4	17	3	0	0	0	0	0	0
9	3	18	7	0	0	0	0	2	0
10	8	13	9	0	1	0	1	0	0
11	5	15	5	0	0	0	0	0	0
12	6	23	7	0	0	0	0	0	0
13	3	14	5	0	0	0	0	0	0
14	8	15	8	0	0	0	0	0	0
15	4	16	6	0	0	0	0	0	0
16	6	15	5	1	0	0	0	2	0
17	8	16	9	0	0	0	0	0	2
18	3	13	7	0	1	0	0	0	1
19	6	17	6	0	0	0	0	0	0
20	4	13	5	0	0	0	0	0	0
21	8	15	8	0	1	0	0	1	0
22	4	13	6	0	0	1	1	0	0
23	6	16	5	0	0	0	0	0	2
24	4	14	6	0	0	0	0	0	0
25	2	17	4	0	0	0	0	0	1
26	7	19	8	0	1	0	0	2	0
27	5	17	6	0	0	0	0	0	0
28	8	18	9	0	0	0	1	0	0
29	5	24	7	0	1	1	0	0	1
30	3	26	5	0	0	1	0	0	0

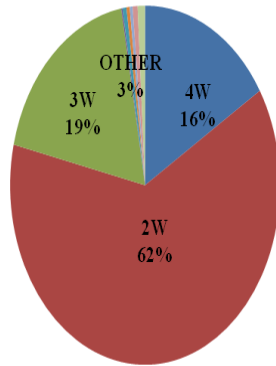
31	6	21	7	0	0	0	0	0	0	
32	4	14	8	0	0	0	0	0	1	
33	2	26	7	0	0	0	0	2	0	
34	6	13	6	0	0	0	0	0	0	
35	7	15	5	0	0	0	0	0	0	
36	5	26	8	0	0	0	1	0	0	
37	4	14	7	0	0	0	0	0	0	
38	7	28	6	0	0	0	0	0	0	
39	5	25	5	0	0	0	1	0	0	
40	8	12	7	0	0	1	0	0	0	
41	6	15	5	0	0	0	0	0	0	
42	5	15	5	0	0	0	0	2	0	
43	6	25	7	0	0	0	1	0	0	
44	5	23	8	0	0	0	0	0	0	
45	3	27	6	0	0	0	0	0	1	
46	5	28	5	0	0	0	0	2	0	
47	2	29	6	0	0	0	0	0	0	
48	6	14	7	0	0	0	1	0	0	
49	3	16	6	0	0	1	0	1	0	
50	7	26	6	0	0	0	0	0	0	
51	5	15	8	0	0	0	0	0	0	
52	4	17	6	0	0	0	0	0	0	
53	3	26	6	0	0	0	0	0	0	
54	2	24	5	0	1	0	0	0	0	
55	5	26	7	0	0	0	0	0	1	
56	6	27	6	0	0	0	1	0	0	
57	4	25	5	0	0	1	0	0	0	
58	3	15	8	0	0	0	0	0	1	
59	4	14	6	0	0	0	0	0	0	
60	5	26	3	0	0	0	0	0	0	
TOTAL	298	1159	364	2	7	7	8	15	14	1874

**INDIRA TO KOTECHA (TIME – 6:00 TO 7:00 PM)****( DATE - 23/01/2022 )SUNDAY**

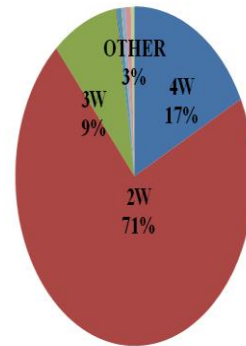
MIN	car/jeep/van	two wheeler	rikshaw	truck	bus	tractor	cycle	pedestrain	other vehicle
1	5	11	4	0	0	0	0	2	0
2	2	29	2	0	0	0	1	0	0
3	7	15	2	0	0	1	0	0	1
4	3	14	5	1	0	0	0	0	0
5	10	28	4	0	0	0	0	0	0
6	3	32	2	0	1	0	0	0	1
7	7	14	2	0	0	0	0	0	0
8	4	15	4	0	0	0	0	1	0
9	1	30	5	0	0	0	0	0	0
10	7	27	7	0	1	0	0	0	0
11	9	58	5	0	0	0	2	0	0
12	3	14	3	0	0	0	0	0	2
13	5	17	2	0	0	0	0	2	0
14	3	53	6	0	0	0	0	2	0
15	8	16	7	0	0	0	0	0	0
16	4	25	6	0	0	1	0	0	0
17	2	27	3	0	0	0	0	0	0
18	9	50	0	0	1	0	0	0	0
19	5	26	6	0	0	0	0	0	0
20	8	15	3	0	0	0	0	1	0
21	6	12	1	1	0	0	0	1	0
22	9	48	3	0	0	0	0	1	0
23	4	18	5	0	2	0	2	1	0
24	6	19	6	0	0	0	0	0	0
25	3	14	7	0	0	0	0	0	0
26	10	39	6	0	0	0	0	0	0
27	8	11	6	0	0	0	2	0	0
28	11	16	5	0	0	0	1	0	0
29	4	18	4	0	0	0	0	1	0
30	17	40	0	0	0	0	1	0	0

31	15	16	5	0	0	0	0	2	0	
32	3	20	3	0	2	0	0	1	0	
33	6	22	2	0	0	0	0	0	0	
34	13	38	6	0	0	0	0	0	0	
35	5	40	1	0	0	0	0	0	0	
36	3	56	7	0	0	0	0	1	0	
37	12	30	5	0	0	0	0	0	0	
38	4	47	1	0	0	0	1	0	0	
39	2	26	4	0	0	0	1	0	0	
40	7	50	5	0	2	0	0	2	0	
41	12	28	1	0	0	0	0	0	1	
42	4	43	2	0	0	0	0	0	0	
43	11	38	2	0	0	0	0	0	0	
44	4	51	1	0	0	0	0	0	0	
45	7	60	3	0	0	0	0	0	0	
46	10	36	8	0	0	0	0	0	0	
47	4	38	5	0	2	0	0	0	0	
48	13	72	2	0	0	0	2	0	0	
49	2	30	3	0	0	0	2	2	0	
50	8	38	2	0	0	0	0	2	0	
51	9	16	2	0	0	0	0	0	0	
52	6	40	5	0	0	0	0	0	0	
53	10	39	3	0	0	0	0	0	1	
54	8	54	1	0	0	0	2	0	0	
55	9	33	7	0	0	0	0	0	0	
56	7	16	6	0	0	0	0	0	0	
57	5	15	3	0	0	0	0	3	0	
58	4	39	3	1	0	0	0	0	0	
59	11	30	8	0	0	0	0	0	0	
60	5	20	2	0	1	0	0	0	0	
TOTAL	402	1832	226	3	12	2	17	25	6	2525

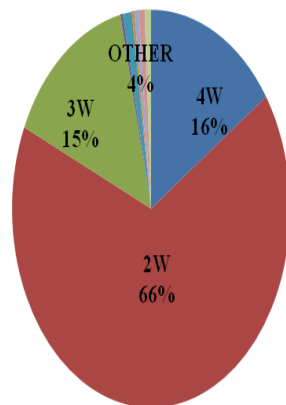
**KOTECHA  
CIRCLE(23/01/2022)  
(8AM TO 9AM)**



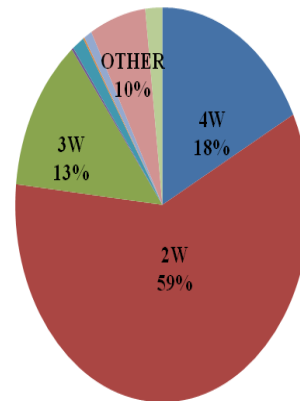
**INDIRA  
CIRCLE(23/01/2022)  
(6PM TO 7PM)**



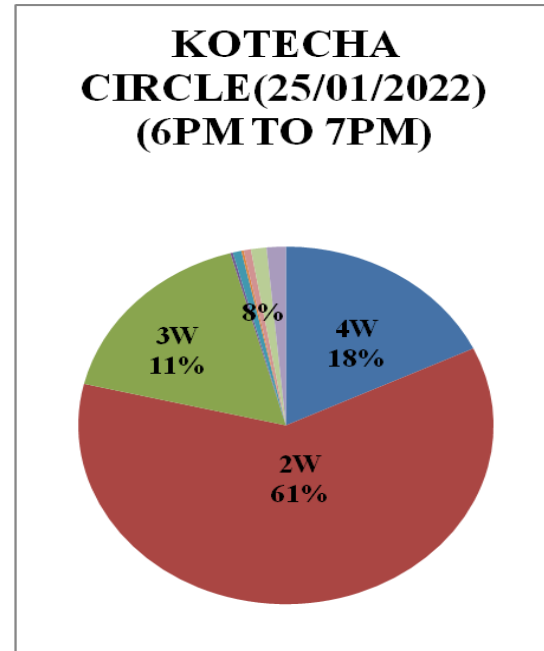
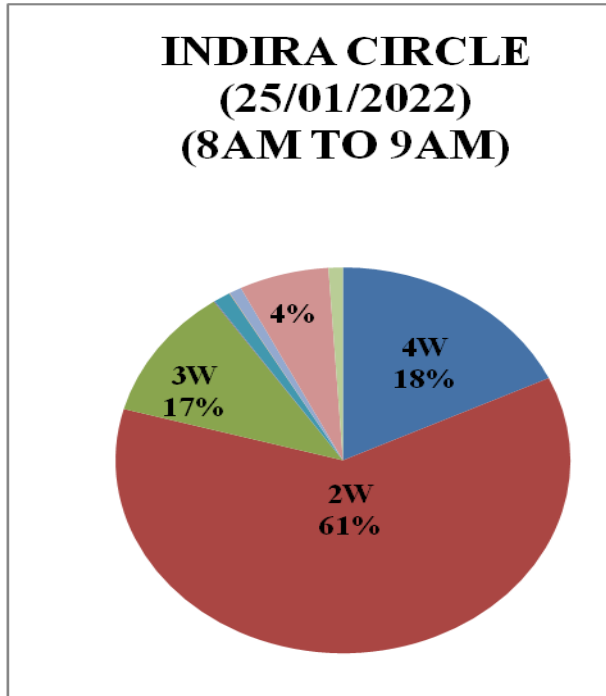
**KOTECHA  
CIRCLE(24/01/2022)  
(8AM TO 9AM)**



**INDIRA  
CIRCLE(24/01/2022)  
(6PM TO 7PM)**







**Fig. 4.1 kotecha circle and indira circle traffic volume pie charts  
(2W- two wheeler, 3W - three wheeler, 4W- four wheeler, and other vehicles)**

## MIDDEL SECTION TRAFFIC VOLUME

### PCU VALUES OF ALL VEHICLES:

Table 4.3 PCU for all vehicles

Type of Vehicle	PCU Values (IRC SP 41)
Car	1
Motor Cycle	0.5
Auto Rickshaw	1
Tempo	1
Truck	4.5
LCV	1.5
Bus	3

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)****( DATE - 26/01/2022 )WEDNESDAY**

MIN	car/jeep/van	two wheeler	rickshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	6	18	5	0	0	0	1	3	0		17.5
2	6	19	3	0	0	0	0	0	0		17
3	9	16	7	0	1	0	2	1	1		24
4	7	17	5	0	0	0	0	0	2		18
5	15	16	6	0	0	0	0	1	0		26
6	15	19	6	0	0	0	1	0	0		27.5
7	8	21	5	0	0	0	0	1	0		21
8	6	36	5	0	0	0	0	0	0		26.5
9	6	27	4	0	0	0	0	0	0		21.5
10	6	25	5	0	0	0	0	1	0		21
11	5	31	7	0	1	0	0	0	1		27.5
12	9	33	4	0	0	0	0	0	1		27.5
13	9	29	2	0	0	0	1	0	0		24.5
14	6	25	6	0	0	0	0	0	0		21.5
15	4	27	5	0	0	0	1	0	0		20
16	10	30	7	0	0	0	0	1	1		28.5
17	11	11	3	0	0	0	0	1	0		18
18	3	28	5	0	0	0	1	0	0		19.5
19	13	11	3	0	0	0	1	0	0		20
20	11	39	6	0	0	0	0	0	1		33.5
21	10	20	4	0	1	0	1	0	1		25.5
22	9	11	4	0	0	0	0	0	2		16.5
23	13	26	3	0	0	0	0	0	0		27.5
24	7	32	6	0	0	0	0	1	1		26
25	6	11	4	0	0	0	2	3	0		13.5
26	8	28	3	0	0	0	2	0	0		23.5
27	3	11	5	0	1	0	1	1	0		14.5
28	9	29	3	0	0	0	0	0	0		25
29	11	27	3	0	0	2	2	0	0		34
30	9	37	3	0	0	0	0	0	1		29

31	5	11	3	0	0	0	0	0	2		12
32	4	27	7	0	2	0	0	0	1		28
33	7	17	3	0	0	0	1	1	0		17
34	3	20	3	0	0	0	2	2	1		14.5
35	3	11	3	0	2	0	0	0	0		17
36	3	19	5	0	2	0	0	0	0		22
37	8	27	3	0	0	0	1	0	2		23
38	3	11	5	0	0	0	0	0	1		11
39	6	28	3	0	0	0	0	0	0		21.5
40	2	29	4	0	0	0	0	0	0		18.5
41	9	16	3	0	0	0	0	2	0		18.5
42	8	11	9	0	0	0	1	0	1		18
43	6	37	5	0	0	0	0	1	0		27
44	2	36	7	0	0	0	0	0	0		23.5
45	5	11	2	0	1	0	0	1	0		15
46	2	18	3	0	0	0	0	1	1		12.5
47	8	15	4	0	0	0	0	1	0		17.5
48	6	11	2	0	1	1	3	0	1		20
49	8	25	5	0	0	0	2	1	0		23
50	6	20	4	0	1	0	1	2	0		21.5
51	5	27	2	0	1	0	0	1	0		23
52	4	11	2	0	2	0	0	1	0		17.5
53	5	17	5	0	0	0	0	0	0		16
54	7	24	6	0	0	0	0	1	0		22
55	5	11	1	0	1	0	0	1	0		14.5
56	9	11	3	0	0	0	0	0	0		16
57	7	33	5	0	0	0	0	0	0		26
58	7	16	2	0	1	0	0	0	0		19.5
59	9	11	3	0	0	0	0	2	1		16
60	5	34	3	0	0	0	1	1	2		23.5
TOTAL	417	1305	252	0	18	3	28	33	25	2081	1270.5
										MAX	34

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 26/01/2022 )WEDNESDAY**

MIN	car/jeep/van	two wheeler	rickshaw	truck	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	9	33	2	0	0	0	0	3	0		26.5
2	4	17	3	0	0	0	0	1	0		14
3	11	22	2	0	0	0	0	0	0		23
4	11	35	2	0	1	0	0	1	1		33
5	11	19	3	0	1	0	1	3	0		25.5
6	5	30	1	0	0	0	0	0	0		20.5
7	12	33	5	0	0	0	0	1	0		31
8	7	37	2	0	1	0	1	0	1		30
9	6	25	1	0	0	0	1	0	0		19
10	10	52	4	0	0	0	0	0	0		38
11	11	24	4	0	1	0	0	2	0		28.5
12	7	12	5	0	1	0	0	0	0		19
13	11	42	4	0	0	0	1	0	0		34
14	12	37	8	0	0	0	2	0	0		34.5
15	11	39	3	0	0	0	0	0	0		32
16	7	39	2	0	2	0	0	3	0		34.5
17	3	47	3	0	0	0	1	0	0		28
18	15	30	5	0	0	0	1	1	0		32.5
19	6	12	2	0	0	0	0	1	0		13
20	9	36	4	0	0	0	0	0	1		29
21	16	29	6	0	0	0	1	5	0		33.5
22	8	12	2	0	0	0	0	1	1		15
23	4	55	3	0	1	0	1	2	0		36.5
24	10	42	3	0	0	0	1	1	1		32.5
25	11	12	4	0	0	0	0	0	0		19
26	9	46	2	0	1	0	0	2	0		36.5
27	8	29	3	0	0	0	0	0	0		24
28	7	12	3	0	0	0	0	0	0		14.5
29	5	27	2	0	0	0	2	1	0		19.5
30	8	29	3	0	0	1	1	0	0		28

31	6	28	3	0	1	0	1	1	0		25
32	10	12	5	0	0	0	1	1	0		18.5
33	11	39	5	0	0	0	2	1	0		33
34	4	27	3	0	0	0	0	0	0		19
35	5	12	4	0	1	0	1	1	0		16.5
36	10	36	3	0	0	0	0	4	0		29.5
37	3	12	3	0	1	0	4	2	0		14
38	8	45	1	0	0	0	0	1	0		31
39	9	40	3	0	0	0	2	1	0		30.5
40	10	12	4	0	0	0	1	2	0		18
41	7	22	3	0	0	0	1	0	1		19.5
42	6	41	2	0	0	0	1	1	0		27.5
43	12	12	3	0	1	0	1	0	0		23
44	17	25	3	0	0	0	1	0	0		31
45	6	46	8	0	1	0	1	0	0		36.5
46	15	39	4	0	0	0	2	5	0		36.5
47	3	12	3	0	0	0	1	0	0		10.5
48	2	40	1	0	0	0	0	2	0		22.5
49	17	12	3	0	0	0	2	0	0		24.5
50	7	12	3	0	0	0	2	0	0		14.5
51	4	21	3	0	0	0	1	0	0		16
52	7	30	1	0	1	0	1	0	0		26
53	11	36	3	0	0	0	1	3	0		30.5
54	10	26	3	0	0	0	1	0	1		24.5
55	9	49	4	0	0	0	1	0	0		35.5
56	13	34	3	0	0	0	1	3	0		31.5
57	5	12	3	0	0	0	0	4	0		12.5
58	4	45	3	0	0	0	0	0	0		28
59	10	30	1	0	0	0	0	1	0		25.5
60	5	28	3	0	1	0	1	1	0		24
TOTAL	510	1749	190	199	16	1	45	62	7	2778.5	1539.5
										MAX	38

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)**

**( DATE - 26/01/2022 )WEDNESDAY**

MIN	car/jeep/van	two wheeler	rickshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	6	34	5	0	0	0	1	3	0		25.5
2	13	19	4	0	0	0	0	0	0		24.5
3	9	16	7	0	1	0	2	1	1		24
4	7	17	5	0	0	0	0	0	2		18
5	15	31	6	0	0	0	0	1	0		33.5
6	15	43	6	0	0	0	1	0	0		39.5
7	8	46	5	0	0	0	0	1	0		33.5
8	6	36	5	0	0	0	0	0	0		26.5
9	6	27	4	0	0	0	0	0	0		21.5
10	6	25	5	0	0	0	0	1	0		21
11	5	31	7	0	1	0	0	0	1		27.5
12	9	33	4	0	0	0	0	0	1		27.5
13	12	29	2	0	0	0	1	0	0		27.5
14	17	25	6	0	0	0	0	0	0		32.5
15	4	27	5	0	0	0	1	0	0		20
16	10	30	7	0	0	0	0	1	1		28.5
17	11	35	3	0	0	0	0	1	0		30
18	3	28	5	0	0	0	1	0	0		19.5
19	13	11	3	0	0	0	1	0	0		20
20	11	39	6	0	0	0	0	0	1		33.5
21	10	20	4	0	1	0	1	0	1		25.5
22	9	11	4	0	0	0	0	0	2		16.5
23	13	26	3	0	0	0	0	0	0		27.5
24	7	32	6	0	0	0	0	1	1		26
25	6	11	4	0	0	0	2	3	0		13.5
26	8	28	3	0	0	0	2	0	0		23.5
27	3	11	5	0	1	0	1	1	0		14.5
28	9	29	3	0	0	0	0	0	0		25
29	11	27	3	0	0	2	2	0	0		34
30	9	37	4	0	0	0	0	0	1		29.5

31	5	11	3	0	0	0	0	0	2		12
32	4	27	7	0	2	0	0	0	1		28
33	7	40	3	0	0	0	1	1	0		28.5
34	3	20	3	0	0	0	2	2	1		14.5
35	3	11	3	0	2	0	0	0	0		17
36	3	41	5	0	2	0	0	0	0		33
37	8	27	3	0	0	0	1	0	2		23
38	3	11	5	0	0	0	0	0	1		11
39	6	28	3	0	0	0	0	0	0		21.5
40	2	29	4	0	0	0	0	0	0		18.5
41	9	41	3	0	0	0	0	2	0		31
42	8	11	9	0	0	0	1	0	1		18
43	10	37	5	0	0	0	0	1	0		31
44	2	36	7	0	0	0	0	0	0		23.5
45	5	11	2	0	1	0	0	1	0		15
46	2	30	3	0	0	0	0	1	1		18.5
47	10	47	4	0	0	0	0	1	0		35.5
48	6	11	2	0	1	1	3	0	1		20
49	8	25	5	0	0	0	2	1	0		23
50	12	20	4	0	1	0	1	2	0		27.5
51	5	27	2	0	1	0	0	1	0		23
52	12	11	2	0	2	0	0	1	0		25.5
53	10	37	5	0	0	0	0	0	0		31
54	7	24	6	0	0	0	0	1	0		22
55	12	11	1	0	1	0	0	1	0		21.5
56	12	11	4	0	0	0	0	0	0		19.5
57	7	33	5	0	0	0	0	0	0		26
58	12	36	2	0	1	0	0	0	0		34.5
59	9	11	3	0	0	0	0	2	1		16
60	11	34	3	0	0	0	1	1	2		29.5
TOTAL	484	1563	255	0	18	3	28	33	25	2409	1468
										MAX	39.5



**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)****( DATE - 26/01/2022 )WEDNESDAY**

MIN	car/jeep/van	two wheeler	rickshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	3	23	3	1	0	0	2	0	1		20
2	5	25	6	0	1	0	0	1	0		24
3	8	21	4	0	0	0	0	1	0		20.5
4	3	14	2	1	0	0	0	1	2		15
5	3	15	7	0	0	1	0	1	1		18
6	15	13	5	0	0	0	0	1	2		24
7	3	11	3	0	0	0	0	0	0		10
8	4	23	8	0	0	0	0	0	0		19.5
9	6	25	5	0	0	0	0	0	0		21
10	3	26	4	0	0	0	0	0	0		18
11	5	24	2	0	0	0	0	0	0		18
12	6	23	4	0	0	0	0	0	0		19.5
13	1	27	5	0	1	0	1	0	0		20.5
14	1	28	6	0	0	0	0	0	0		18
15	2	25	5	0	0	0	0	0	0		17
16	3	21	5	1	0	1	0	0	1		24
17	4	23	3	0	0	0	0	1	2		17
18	3	38	3	0	0	0	0	0	0		23.5
19	2	12	2	0	0	0	0	0	0		9
20	1	27	2	0	0	0	0	0	0		15.5
21	2	20	4	0	0	0	2	0	0		14
22	5	24	5	0	0	0	2	0	0		19.5
23	2	24	7	0	0	0	0	0	0		17.5
24	8	25	5	0	1	0	0	1	0		26.5
25	4	26	4	0	0	0	0	0	0		19
26	5	21	3	0	0	0	0	0	0		17
27	3	30	4	0	0	0	0	0	0		20
28	3	25	7	0	0	0	0	0	0		19
29	2	26	6	0	0	0	0	0	2		18
30	11	40	4	0	0	0	0	0	0		33

31	2	13	4	0	1	0	2	0	0	14	
32	6	20	7	0	0	0	1	0	1	19.5	
33	7	24	5	0	0	0	0	0	0	21.5	
34	2	15	4	0	0	0	0	0	1	11.5	
35	2	11	2	0	0	0	0	0	0	8.5	
36	10	11	7	0	0	0	0	1	0	19	
37	8	13	6	0	0	0	0	0	2	17.5	
38	7	11	4	0	1	0	0	1	0	18	
39	6	13	2	0	0	0	0	0	0	13.5	
40	2	32	6	0	0	0	0	0	0	21	
41	5	22	8	0	0	0	0	1	0	20	
42	2	32	2	0	0	0	0	0	0	19	
43	3	11	1	0	0	0	0	1	0	9	
44	3	25	6	0	0	0	0	1	0	18.5	
45	4	40	9	0	0	0	0	0	0	28.5	
46	10	22	4	0	0	0	2	0	0	23	
47	2	16	6	0	0	0	0	0	0	13	
48	3	39	5	0	0	0	0	0	0	25	
49	2	29	4	0	0	0	0	0	0	18.5	
50	7	23	3	0	0	0	0	0	0	20	
51	11	21	2	0	0	0	0	0	0	22.5	
52	8	17	1	0	0	0	0	0	0	17	
53	6	15	4	0	1	0	0	0	0	19	
54	5	11	6	0	0	0	0	0	0	13.5	
55	4	22	7	0	0	0	0	0	0	18.5	
56	2	30	5	0	0	0	0	0	0	19.5	
57	6	26	4	0	0	0	1	0	0	21	
58	7	22	3	0	0	0	0	0	0	19.5	
59	8	17	2	0	1	0	0	0	0	21	
60	9	15	2	0	0	0	0	0	0	17.5	
TOTAL	285	1323	264	3	7	2	13	12	15	1924	1123
										MAX	18.72

**MIDDEL PART(8:00 TO 9:00 AM )  
( DATE - 27/01/2022 ) THURSDAY**

MIN	car/jeep/van	two wheeler	rickshaw	trucks	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	4	14	3	0	0	0	0	1	0		12.5
2	4	19	0	0	0	0	2	0	0		13.5
3	5	16	4	0	0	0	0	1	1		15
4	3	21	3	0	0	0	0	0	0		15
5	1	15	1	0	0	0	0	0	0		9
6	2	14	4	0	0	0	0	0	0		11
7	3	13	3	0	0	0	0	0	0		11
8	4	24	2	0	0	0	0	0	0		17
9	4	21	1	1	0	0	0	1	0		19
10	5	22	6	0	0	0	0	0	0		19
11	48	35	4	0	0	0	0	0	0		67.5
12	6	24	4	0	0	0	0	0	1		20
13	2	21	2	0	0	0	0	0	0		13.5
14	4	24	2	0	0	1	0	0	0		21
15	2	21	6	0	0	0	0	0	0		15.5
16	8	22	4	0	0	0	0	1	0		21
17	6	20	3	0	0	0	0	0	0		17.5
18	3	16	2	0	0	0	0	0	0		12
19	6	15	6	0	0	0	0	0	1		16.5
20	1	16	4	0	0	0	1	0	0		11
21	5	12	3	0	0	0	0	0	1		12.5
22	3	32	2	0	1	0	1	0	0		23.5
23	6	39	4	0	0	0	0	0	0		27.5
24	4	18	3	0	0	0	0	0	0		14.5
25	2	22	2	1	0	0	0	0	0		18
26	2	27	2	0	0	0	0	0	0		16.5
27	5	15	2	0	0	0	0	0	0		13.5
28	4	12	2	0	0	0	0	0	0		11
29	2	14	2	0	0	0	0	0	0		10
30	1	12	2	0	0	0	0	0	0		8

31	2	16	1	0	0	0	0	0	0		10.5
32	4	29	2	0	0	0	0	0	0		19.5
33	3	30	3	0	0	0	0	0	0		19.5
34	2	13	2	0	0	0	0	0	0		9.5
35	4	19	1	0	0	0	0	0	2		14
36	3	15	2	0	0	0	0	0	0		11.5
37	5	14	4	0	0	0	0	1	0		14
38	3	22	2	0	1	0	0	0	0		18.5
39	2	13	1	0	0	0	0	1	0		9
40	5	11	2	0	0	0	0	0	0		11.5
41	2	17	3	1	0	0	0	0	0		16
42	2	16	2	0	1	0	1	0	0		14.5
43	2	22	1	0	0	0	0	0	0		13.5
44	4	29	2	0	0	0	0	0	0		19.5
45	3	11	3	0	0	0	2	2	0		10
46	2	16	2	0	0	0	0	0	0		11
47	3	29	2	0	1	0	0	0	0		22
48	6	17	2	0	0	0	0	0	0		15.5
49	5	14	3	0	1	0	0	0	0		17
50	3	19	2	0	0	0	0	0	0		13.5
51	2	17	1	0	0	0	0	0	0		11
52	3	31	1	0	0	1	0	0	0		23
53	4	11	4	0	0	0	0	0	0		11.5
54	5	12	3	0	2	0	0	1	0		19.5
55	5	14	2	0	0	0	0	0	1		13
56	4	17	3	0	0	0	1	0	0		14
57	3	11	2	0	0	1	0	1	0		13.5
58	5	15	3	0	0	0	0	0	0		14
59	6	12	2	0	0	0	0	0	1		13
60	3	15	4	0	0	0	1	0	0		12.5
TOTAL	260	1123	155	3	7	3	9	10	8	1578	947.5
										MAX	67.5

**MIDDEL PART(6:00 TO 7:00 PM )****( DATE - 27/01/2022 ) THURSDAY**

MIN	car/jeep/van	two wheeler	rickshaw	truck	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	9	33	2	0	0	0	0	0	0		26.5
2	4	17	4	0	0	0	0	1	0		14.5
3	11	22	2	0	0	0	0	0	0		23
4	11	35	2	0	1	0	0	1	1		33
5	4	19	3	0	0	0	1	0	0		15
6	5	30	1	0	0	0	0	0	0		20.5
7	12	33	5	0	0	0	0	1	0		31
8	7	37	2	0	1	0	1	0	1		30
9	6	25	1	0	0	0	1	0	0		19
10	10	11	4	0	0	0	0	0	0		17.5
11	11	24	4	0	1	0	0	0	0		28.5
12	7	12	5	0	1	0	0	0	0		19
13	11	42	4	0	0	0	1	0	0		34
14	3	37	8	0	0	0	0	0	0		25.5
15	3	39	3	0	0	0	0	0	0		24
16	7	39	2	0	2	0	0	3	0		34.5
17	3	15	3	0	0	0	1	0	0		12
18	3	30	5	0	0	0	1	1	0		20.5
19	6	12	2	0	0	0	0	1	0		13
20	9	36	4	0	0	0	0	0	1		29
21	3	29	6	0	0	0	1	0	0		20.5
22	8	12	2	0	0	0	0	1	1		15
23	3	11	3	0	0	0	1	0	0		10
24	5	16	3	0	0	0	1	1	1		14.5
25	3	12	4	0	0	0	0	0	0		11
26	9	11	2	0	1	0	0	0	0		19
27	8	29	3	0	0	0	0	0	0		24
28	7	12	3	0	0	0	0	0	0		14.5
29	5	27	2	0	0	0	0	1	0		19.5
30	8	29	3	0	0	1	1	0	0		28

31	6	28	3	0	0	0	0	0	0		21.5
32	4	12	5	0	0	0	0	1	0		12.5
33	3	11	5	0	0	0	0	1	0		11
34	4	27	3	0	0	0	0	0	0		19
35	5	12	4	0	1	0	1	1	0		16.5
36	4	12	3	0	0	0	0	0	0		11.5
37	3	12	3	0	1	0	4	2	0		14
38	8	45	1	1	0	0	0	1	0		35
39	9	11	3	0	0	0	2	1	0		16
40	6	12	4	0	0	0	1	2	0		14
41	7	22	3	0	0	0	1	0	1		19.5
42	6	15	2	0	0	0	1	1	0		14.5
43	6	12	3	0	1	0	1	0	0		17
44	4	21	3	0	0	0	1	0	0		16
45	6	18	8	0	1	0	1	0	0		22.5
46	6	39	4	0	0	0	2	0	0		27.5
47	3	12	3	0	0	0	0	0	0		10.5
48	2	15	1	0	0	0	0	0	0		10
49	4	12	3	1	0	0	2	0	0		15.5
50	7	17	3	0	0	0	0	0	0		17
51	4	12	3	0	0	0	1	0	0		11.5
52	7	16	1	0	0	0	0	0	0		15.5
53	7	15	3	0	0	0	1	0	0		16
54	10	26	3	1	0	0	0	0	1		28.5
55	9	18	4	0	0	0	1	0	0		20
56	5	12	3	0	0	0	1	0	0		12.5
57	5	12	3	0	0	0	0	0	0		12.5
58	4	10	4	0	0	0	0	0	0		11
59	10	17	1	0	0	0	0	0	0		19
60	5	28	3	0	0	0	1	1	0		20.5
TOTAL	370	1267	192	3	11	1	32	22	7	1905	957
										MAX	35

**MIDDEL PART(8:00 TO 9:00 AM )**  
**( DATE - 27/01/2022 )THURSDAY**

MIN	car/jeep/van	two wheeler	rickshaw	truck	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	4	21	6	0	0	0	0	0	0		17.5
2	4	18	2	0	0	0	0	0	1		14
3	2	24	4	0	0	0	2	0	0		16
4	3	16	4	0	0	0	0	0	0		13
5	4	15	3	0	0	0	1	0	0		13
6	4	15	4	0	0	0	0	0	0		13.5
7	3	12	5	1	1	0	0	0	11		19
8	7	11	5	0	0	0	0	1	0		15
9	6	16	1	0	0	0	1	0	0		14.5
10	4	15	4	0	0	0	0	0	0		13.5
11	4	13	4	0	0	1	0	0	0		16.5
12	2	14	2	0	0	0	0	0	1		10
13	3	38	3	0	0	0	0	0	0		23.5
14	4	11	4	0	0	0	0	0	0		11.5
15	3	15	6	0	0	0	1	0	0		13.5
16	2	11	2	0	0	0	0	0	0		8.5
17	3	15	5	0	0	0	0	0	0		13
18	4	11	4	0	1	0	0	0	1		15
19	4	11	3	0	0	0	1	1	0		11
20	2	21	2	0	0	0	0	0	0		13.5
21	5	15	6	0	0	0	0	0	0		15.5
22	2	15	2	0	0	0	0	1	0		10.5
23	3	13	6	0	0	1	0	0	0		16.5
24	4	28	2	0	0	0	0	1	0		19
25	3	22	4	0	0	0	1	0	0		16
26	2	32	3	0	0	0	0	0	0		19.5
27	2	14	3	0	0	0	0	0	0		10.5
28	3	39	5	0	0	0	0	0	0		25
29	4	13	2	0	0	0	0	1	0		11.5
30	3	16	3	0	0	0	0	0	0		12.5

31	1	37	4	0	0	0	1	1	0		21.5
32	2	17	3	0	0	0	0	0	0		12
33	3	32	5	0	0	0	0	1	0		21.5
34	3	15	2	0	0	0	0	0	0		11.5
35	5	15	1	0	0	0	0	0	1		13
36	2	40	3	0	0	0	0	0	0		23.5
37	3	37	4	0	0	0	0	2	0		23.5
38	4	38	1	0	1	0	0	0	0		27
39	3	28	3	0	0	0	0	1	0		18.5
40	2	32	4	0	0	0	1	0	0		20
41	7	17	2	0	0	0	0	0	0		16.5
42	3	32	2	0	0	0	1	1	0		20
43	4	26	3	0	0	0	0	0	0		18.5
44	8	23	2	0	0	0	0	0	0		20.5
45	6	22	4	1	0	0	1	0	0		23
46	4	30	6	0	0	0	0	2	0		22
47	9	25	2	0	0	0	1	0	0		22.5
48	2	26	4	0	0	0	0	0	0		17
49	2	31	2	0	0	0	0	0	0		18.5
50	7	23	5	0	0	0	2	0	0		21
51	4	24	6	0	0	0	0	0	0		19
52	7	25	1	0	0	0	1	0	0		20
53	3	36	3	0	0	0	1	0	0		22.5
54	4	22	5	0	0	0	0	2	0		17.5
55	2	31	4	0	0	0	0	0	0		19.5
56	2	37	6	0	0	0	0	0	0		23.5
57	5	22	3	0	0	0	0	0	0		17.5
58	3	20	5	0	0	0	0	0	0		15.5
59	4	15	2	0	1	0	0	0	0		16
60	3	11	3	0	0	0	0	1	0		10
TOTAL	220	1319	209	1	4	2	16	16	15	1698	1014
										MAX	27

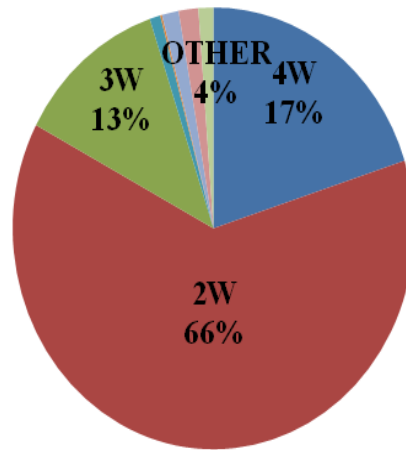


**MIDDEL PART(6:00 TO 7:00 PM )****( DATE - 27/01/2022 ) THURSDAY**

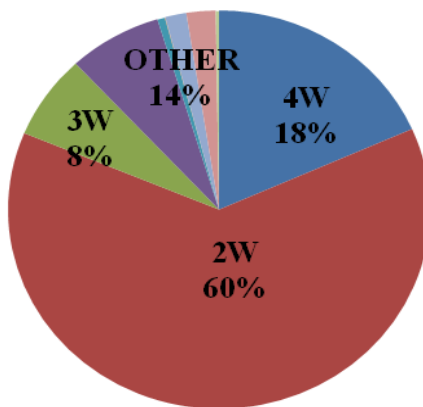
MIN	car/jeep/van	two wheeler	rickshaw	truck	bus	tractor	cycle	pedestrain	other vehicle		pcu/hr
1	7	27	5	0	0	0	0	0	0		23
2	7	29	2	0	0	0	1	0	0		22.5
3	6	26	3	0	0	0	0	0	0		20.5
4	2	20	4	0	0	0	0	0	0		14
5	4	27	5	0	0	0	0	0	0		20
6	5	21	8	0	0	0	0	0	0		19.5
7	5	24	5	0	0	0	0	0	0		19.5
8	2	23	6	0	0	0	0	3	0		16.5
9	6	25	5	0	0	0	1	3	0		21
10	7	23	2	0	1	0	0	0	1		23
11	2	21	3	0	0	0	0	0	0		14
12	9	11	4	0	0	0	0	0	0		16.5
13	2	21	5	0	0	0	0	0	1		15
14	8	11	6	0	0	0	0	0	0		16.5
15	8	13	4	0	0	0	0	0	0		16.5
16	2	12	2	0	0	0	1	0	1		9
17	6	15	3	0	0	0	0	0	0		15
18	6	11	5	0	0	0	0	0	0		14
19	3	14	8	0	0	0	0	1	0		14
20	2	21	7	0	0	0	0	0	0		16
21	4	21	2	0	0	0	0	0	0		15.5
22	8	23	3	0	0	0	0	0	0		21
23	5	26	5	0	0	0	0	0	0		20.5
24	6	25	7	0	1	0	0	0	0		25.5
25	2	11	4	0	0	0	0	5	1		9.5
26	2	17	2	1	0	0	1	0	0		15.5
27	7	25	4	0	0	0	1	3	0		21.5
28	7	10	5	0	0	0	1	2	0		14.5
29	2	13	7	0	0	0	0	0	1		12
30	6	18	6	0	0	1	0	1	0		22

31	7	17	2	0	0	0	0	1	0		16.5
32	2	17	2	0	0	0	0	0	1		11.5
33	4	16	4	0	0	0	0	0	0		14
34	4	15	3	0	0	0	0	2	0		13
35	2	17	8	0	0	0	0	0	0		14.5
36	7	13	5	0	0	0	0	1	0		16
37	7	14	3	0	0	0	0	0	0		15.5
38	2	21	4	0	0	0	0	0	0		14.5
39	3	17	5	0	1	0	0	0	0		17.5
40	2	11	6	0	0	0	1	0	0		10.5
41	2	16	8	0	0	0	0	2	0		14
42	2	14	4	0	0	0	1	0	0		11
43	1	16	3	0	0	0	2	0	0		10.5
44	2	11	5	0	0	0	0	0	0		10
45	3	12	7	0	0	0	0	0	0		12.5
46	2	15	5	0	0	0	0	0	0		12
47	2	21	2	0	0	0	0	0	0		13.5
48	1	25	3	0	0	0	0	0	0		15
49	4	11	6	0	0	0	0	2	0		12.5
50	2	16	8	1	0	0	0	0	0		18
51	2	12	2	0	0	0	0	0	0		9
52	2	11	3	0	0	0	2	0	0		9
53	3	15	6	0	0	0	2	0	0		13.5
54	2	2	8	0	0	1	2	0	0		5
55	2	15	5	0	0	0	0	0	0		12
56	6	23	4	1	1	0	0	0	0		27
57	2	24	2	0	0	0	0	0	0		15
58	3	45	7	0	0	0	0	0	0		29
59	2	24	3	0	0	0	0	0	0		15.5
60	6	23	1	0	0	0	0	0	0		18
TOTAL	239	1091	271	3	4	2	16	26	6	1658	947
										MAX	29

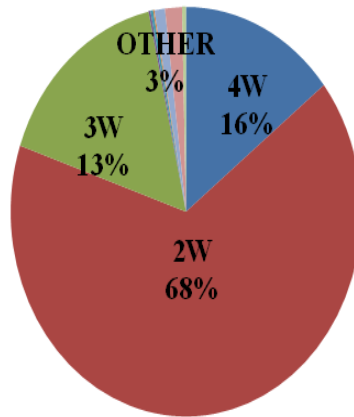
**MIDDEL PART(26/1/2022)  
(8 TO 9 AM)**



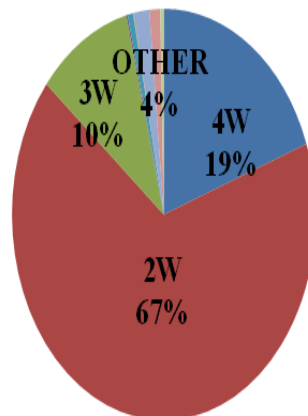
**MIDDEL PART(26/1/2022)  
(6 TO 7 PM)**



**MIDDEL PART(27/1/2022)**  
**(8 TO 9 AM)**



**MIDDEL PART(27/1/2022)**  
**(6 TO 7 PM)**



**Fig. 4.2 middle part volume pie charts**

**(2W- two wheeler, 3W - three wheeler, 4W- four wheeler, and other vehicles)**

#### 4.4 SPOT SPEED STUDY

MIDDEL PART - (TIME - 8:00 TO 9:00 AM)

( DATE - 26/01/2022 )WEDNESDAY

MIN	car/jeep/van kmph	two wheeler kmph	rickshaw kmph	truck kmph	bus kmph	tractor kmph	cycle kmph	pedestrian kmph	other vehicle kmph
1	20.38	14.32	21.91	0	0	0	20.112	4.22	0
2	19.53	18.06	21.9	0	0	0	0	0	0
3	38.57	24.88	23.48	0	29.43	0	12.646	4.72	22.04
4	12.46	20.11	23.68	0	0	0	0	0	20.3
5	23.48	19.89	12.3	0	0	0	0	3.52	0
6	43.2	16.02	18.75	0	0	0	14.324	0	0
7	19.01	28.72	24.27	0	0	0	0	3.74	0
8	25.65	23.23	30.34	0	0	0	0	0	0
9	19.82	22.18	37.63	0	0	0	0	0	0
10	21.69	18.75	18.31	0	0	0	0	4.38	0
11	27.76	15.93	25	0	21.34	0	0	0	24.66
12	21.69	33.23	28.57	0	0	0	0	0	25
13	42.19	25.41	29.35	0	0	0	17.97	0	0
14	36.24	30.25	33.44	0	0	0	0	0	0
15	30.51	23.68	24.66	0	0	0	18.336	0	0
16	23.13	22.69	20.3	0	0	0	0	5.5	18.4
17	25.41	30.17	25.47	0	0	0	0	5.79	0
18	30.34	18.4	30.17	0	0	0	18.06	0	0
19	30.34	24.77	29.59	0	0	0	17.851	0	0
20	30.34	29.35	25.65	0	0	0	0	0	22.69
21	25.47	22.59	24.6	0	21.69	0	18.212	0	29.43
22	30.25	30.34	20.3	0	0	0	0	0	22.83
23	42.19	22.59	23.13	0	0	0	0	0	0
24	29.43	28.57	19.74	0	0	0	0	5.51	23.13
25	30.59	22.09	24.6	0	0	0	19.048	5.72	0
26	30.34	31.21	22.18	0	0	0	18.336	0	0
27	23.68	27.91	20.04	0	20.15	0	17.97	5.41	0
28	30.25	23.08	37.24	0	0	0	0	0	0
29	23.08	22.59	19.53	0	0	22.59	18.305	0	0
30	22.59	23.08	20.3	0	0	0	0	0	27.69

31	27.14	30.17	18.34	0	0	0	0	0	36.24
32	22.55	23.08	24.66	0	23.23	0	0	0	23.13
33	29.27	27.98	33.44	0	0	0	15.929	5.72	0
34	22.69	25.41	22.69	0	0	0	18.06	5.49	22.69
35	30.68	30.34	25	0	22.59	0	0	0	0
36	22.55	23.68	28.57	0	21.34	0	0	0	0
37	25.41	30.25	19.82	0	0	0	18.685	0	25
38	33.64	29.43	20.22	0	0	0	0	0	25.65
39	39.13	23.68	24.71	0	0	0	0	0	0
40	38.85	28.57	20.3	0	0	0	0	0	0
41	27.14	23.84	20.15	0	0	0	0	5.78	0
42	37.24	30.25	19.82	0	0	0	18.336	0	29.43
43	64.29	23.13	16.46	0	0	0	0	5.46	0
44	39.13	27.14	19.42	0	0	0	0	0	0
45	69.23	18.65	16.19	0	21.77	0	0	0	0
46	44.44	22.69	21.69	0	0	0	0	0	18.4
47	28.72	30.17	16.19	0	0	0	0	0	0
48	33.23	29.27	19.49	0	25.12	24	19.048	0	23.23
49	42.02	22.69	16.41	0	0	0	18.399	5.48	0
50	30.34	23.13	25	0	20.69	0	19.817	0	0
51	30.51	23.63	18.75	0	25.17	0	0	0	0
52	40.45	25.35	16.17	0	21.05	0	0	0	0
53	29.83	23.08	33.13	0	0	0	0	0	0
54	27.91	29.35	22.04	0	0	0	0	5.49	0
55	36	23.28	19.05	0	23.03	0	0	5.81	0
56	42.19	29.27	29.59	0	0	0	0	0	0
57	29.19	26.09	24.6	0	0	0	0	0	0
58	42.52	34.18	19.89	0	23.58	0	0	0	0
59	37.24	23.13	19.49	0	0	0	0	5.52	28.8
60	42.19	28.72	20.3	0	0	0	18.305	5.89	24.88
total	1895.31	1503.71	1344.2	0	320.2	46.59	357.75	99.13	493.61

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)****( DATE - 26/01/2022 )WEDNESDAY**

Min	Car/jeep/van Kmph	Two wheeler Kmph	Rickshaw Kmph	Truck Kmph	Bus Kmph	Tractor Kmph	Cycle Kmph	Pedestrain Kmph	Other vehicle Kmph
1	28.72	39.87	38.65	0	0	0	0	10.14	0
2	30.86	33.44	23.78	0	0	0	0	12.62	0
3	43.9	31.3	23.13	0	0	0	0	0	0
4	38.85	24.88	23.13	0	22.09	0	0	10.82	21.69
5	34.95	33.13	30.34	0	22.59	0	19.01	12.34	0
6	38.85	23.23	18.75	0	0	0	0	0	0
7	27.76	27.76	23.23	0	0	0	0	29.35	0
8	40.75	37.24	42.52	0	21.47	0	18.06	0	22.09
9	42.19	25.35	25.41	0	0	0	19.12	0	0
10	22.83	30.17	23.13	0	0	0	0	0	0
11	44.08	23.08	19.01	0	21.14	0	0	11.07	0
12	37.37	33.23	23.23	0	20.3	0	0	0	0
13	42.02	23.08	22.55	0	0	0	18.75	0	0
14	29.35	29.59	28.5	0	0	0	19.71	0	0
15	33.64	30.17	25.96	0	0	0	0	0	0
16	40.45	23.08	30.34	0	23.53	0	0	10.12	0
17	28.72	23.68	29.43	0	0	0	18.4	0	0
18	42.19	30.17	25.47	0	0	0	19.15	10.82	0
19	43.72	23.08	23.13	0	0	0	0	12.07	0
20	27.14	24.16	30.34	0	0	0	0	0	22.69
21	42.86	29.43	23.13	0	0	0	19.89	12.34	0
22	22.59	23.23	30.34	0	0	0	0	11.03	24.77
23	25.65	25.35	22.69	0	22.09	0	19.49	12.57	0
24	19.42	30.34	29.59	0	0	0	19.01	12.13	28.5
25	27.91	25	22.69	0	0	0	0	0	0
26	42.02	23.18	28.8	0	20.61	0	0	10.21	0
27	25.35	30.17	22.09	0	0	0	0	0	0
28	42.19	23.03	29.59	0	0	0	0	0	0
29	29.43	30.34	23.84	0	0	0	18.75	11.07	0
30	42.19	23.03	30.08	0	0	23.13	17.79	0	0

31	30.34	23.08	23.23	0	21.26	0	18.06	11.29	0
32	34.29	30.34	28.72	0	0	0	18.88	12.37	0
33	29.43	21.69	29.35	0	0	0	18.75	12.43	0
34	33.33	29.35	25	0	0	0	0	0	0
35	22.18	23.68	30.34	0	21.34	0	18.34	11.15	0
36	25.35	29.43	23.79	0	0	0	0	12.07	0
37	25.35	25.29	28.57	0	21.73	0	19.89	11.38	0
38	29.43	33.23	29.59	0	0	0	0	12.15	0
39	37.24	33.33	27.91	0	0	0	19.01	12.36	0
40	29.35	25.41	23.79	0	0	0	19.71	11.15	0
41	33.23	30.51	33.44	0	0	0	18.09	0	22.69
42	33.23	29.27	23.13	0	0	0	20.15	12.57	0
43	42.19	23.23	32.34	0	22.04	0	18.75	0	0
44	31.3	29.35	25.35	0	0	0	20.19	0	0
45	30.25	23.03	33.23	0	20.61	0	19.08	0	0
46	33.33	30.08	23.13	0	0	0	18.37	11.37	0
47	23.58	22.69	31.3	0	0	0	17.85	0	0
48	41.86	22.55	23.13	0	0	0	0	12.72	0
49	42.19	27.14	32.53	0	0	0	18.4	0	0
50	37.37	22.59	23.68	0	0	0	18.75	0	0
51	42.52	23.08	29.59	0	0	0	18.75	0	0
52	34.73	28.57	22.69	0	21.43	0	20.11	0	0
53	23.63	29.59	28.57	0	0	0	19.78	12.78	0
54	39.13	31.12	21.69	0	0	0	18.75	0	20.3
55	30.34	23.13	23.68	0	0	0	18.34	0	0
56	42.02	23.23	29.43	0	0	0	19.05	11.15	0
57	27.14	19.82	23.13	0	0	0	0	10.94	0
58	30.51	38.71	30.34	0	0	0	0	0	0
59	42.19	33.44	22.69	0	0	0	0	11.15	0
60	29.59	19.89	30.17	0	22.09	0	18.06	10.91	0
total	2024.58	1638.58	1582.55	0	324.31	23.13	662.24	388.62	162.72



**MIDDEL PART ( 8:00 TO 9:00 AM )**  
**( DATE - 26/01/2022 ) WEDNESDAY**

Min	car/jeep/van kmph	two wheeler kmph	rickshaw kmph	trucks kmph	bus kmph	tractor kmph	cycle kmph	pedestrian kmph	other vehicle kmph
1	30.42	29.59	29.59	18.62	0	0	20.69	0	29.43
2	19.42	27.07	29.51	0	18.62	0	0	6.36	0
3	34.62	23.48	21.95	0	0	0	0	6.04	0
4	17.31	25.53	23.23	25.71	0	0	0	6.4	22.59
5	18.69	20.22	25.23	0	0	22.04	0	6	18.4
6	25.35	30.34	19.05	0	0	0	0	6.36	27.91
7	21.09	22.69	32.53	0	0	0	0	0	0
8	26.15	19.89	36.12	0	0	0	0	0	0
9	25.84	30.34	37.37	0	0	0	0	0	0
10	27.14	27.69	31.3	0	0	0	0	0	0
11	20.53	28.57	20.65	0	0	0	0	0	0
12	49.32	22.04	25.29	0	0	0	0	0	0
13	25.84	25.53	27.69	0	25.71	0	26.87	0	0
14	17.56	33.33	42.19	0	0	0	0	0	0
15	24.27	19.89	25.59	0	0	0	0	0	0
16	21.14	22.69	29.59	22.18	0	23.48	0	0	20.38
17	17.53	19.89	38.99	0	0	0	0	6.27	22.04
18	33.96	29.43	22.18	0	0	0	0	0	0
19	38.85	36.12	18.37	0	0	0	0	0	0
20	25.35	20.22	45.96	0	0	0	0	0	0
21	19.05	25	23.89	0	0	0	19.78	0	0
22	25.9	28.65	23.13	0	0	0	17.73	0	0
23	50	24.66	28.57	0	0	0	0	0	0
24	20.89	19.67	37.24	0	21.18	0	0	6.38	0
25	28.72	30.34	28.57	0	0	0	0	0	0
26	26.47	29.03	20.49	0	0	0	0	0	0
27	34.29	19.74	0	0	0	0	0	0	0
28	20.61	29.59	28.95	0	0	0	0	0	0
29	42.19	18.75	25.53	0	0	0	0	0	23.13
30	27.84	29.59	18.31	0	0	0	0	0	0

31	21.05	37.24	19.89	0	18.31	0	15.65	0	0
32	30.42	29.43	18.37	0	0	0	23.13	0	20.3
33	22.59	20.3	22.69	0	0	0	0	0	0
34	19.89	29.51	32.24	0	0	0	0	0	23.13
35	26.02	23.68	25.17	0	0	0	0	0	0
36	20.61	20.22	22.59	0	0	0	0	6.36	0
37	21.05	34.73	18.88	0	0	0	0	0	18.75
38	26.02	29.43	25.59	0	26.34	0	0	6.23	0
39	20.69	24.71	21.64	0	0	0	0	0	0
40	30.42	25	28.27	0	0	0	0	0	0
41	20.19	20.11	20.3	0	0	0	0	6.23	0
42	34.39	33.23	20.3	0	0	0	0	0	0
43	20.57	24.77	21.64	0	0	0	0	6.34	0
44	23.68	37.5	27.55	0	0	0	0	6.42	0
45	19.85	22.45	39.13	0	0	0	0	0	0
46	23.13	29.43	21.9	0	0	0	15.65	0	0
47	18.37	22.69	25.53	0	0	0	0	0	0
48	21.64	23.68	19.89	0	0	0	0	0	0
49	17.34	20.19	28.65	0	0	0	0	0	0
50	20.26	29.43	20.65	0	0	0	0	0	0
51	23.74	21.01	21.69	0	0	0	0	0	0
52	20.73	22.41	25.23	0	0	0	0	0	0
53	29.43	23.23	25.59	0	22.98	0	0	0	0
54	27.91	29.43	20.77	0	0	0	0	0	0
55	25.53	21.95	28.27	0	0	0	0	0	0
56	18.37	24.88	20.53	0	0	0	0	0	0
57	36.36	27.14	28.27	0	0	0	18.18	0	0
58	21.77	24.71	29.83	0	0	0	0	0	0
59	25.17	30.51	18.06	0	19.64	0	0	0	0
60	30	24.77	25.53	0	0	0	0	0	0
<b>TOTAL</b>	<b>1533.54</b>	<b>1857.35</b>	<b>1519.84</b>	<b>66.51</b>	<b>152.77</b>	<b>45.52</b>	<b>157.68</b>	<b>75.39</b>	<b>226.05</b>

**MIDDEL PART (6:00 TO 7:00 PM )  
( DATE - 26/01/2022 ) WEDNESDAY**

Min	Car/jeep/van Kmph	Two wheeler Kmph	Rickshaw Kmph	Trucks Kmph	Bus Kmph	Tractor Kmph	Cycle Kmph	Pedestrain Kmph	Other vehicle Kmph
1	18.69	19.82	25.53	0	0	0	0	0	0
2	20.53	25.59	20.65	0	0	0	16.19	0	0
3	31.4	20.53	24.38	0	0	0	0	0	0
4	20.93	39.85	20.22	0	0	0	0	0	0
5	30.34	20.53	41.22	0	0	0	0	0	0
6	23.68	21.64	22.18	0	0	0	0	0	0
7	28.57	40.75	18.88	0	0	0	0	0	0
8	46.15	30.51	27.55	0	0	0	0	6.65	0
9	24.27	25.41	25.53	0	0	0	20.04	6.23	0
10	20.15	33.96	27.41	0	19.82	0	0	6.4	18.62
11	18.06	38.16	20.42	0	0	0	0	0	0
12	23.28	18.88	28.57	0	0	0	0	0	0
13	21.56	32.93	42.69	0	0	0	0	0	23.23
14	20.26	25.29	22.04	0	0	0	0	0	0
15	29.35	20.89	20.45	0	0	0	0	0	0
16	37.11	22.59	38.3	0	0	0	14.08	0	28.57
17	24.77	49.77	21.91	0	0	0	0	0	0
18	28.27	27.69	18.88	0	0	0	0	0	0
19	37.5	18.88	27.14	0	0	0	0	6.27	0
20	20.69	47.37	25.29	0	0	0	0	0	0
21	20.57	25.29	28.72	0	0	0	0	0	0
22	22.59	25.35	22.88	0	0	0	0	0	0
23	19.82	33.54	28.27	0	0	0	0	0	0
24	25.35	20.42	18.72	0	17.7	0	0	0	0
25	21.56	19.82	23.74	0	0	0	0	6.15	19.82
26	22.45	18.06	46.35	18.31	0	0	18.34	0	0
27	42.19	25.35	20.49	0	0	0	17.06	6.35	0
28	27.14	38.3	48	0	0	0	20.97	6.73	0
29	28.65	22.04	20.65	0	0	0	0	0	23.13
30	20.22	28.27	20.65	0	0	22.5	0	6.23	0

31	20.77	20.42	20.42	0	0	0	0	6.03	0
32	28.57	32.93	36.24	0	0	0	0	0	25
33	22.41	48.21	25.59	0	0	0	0	0	0
34	38.3	29.59	20.65	0	0	0	0	6.71	0
35	18.24	25.23	45.19	0	0	0	0	0	0
36	22.13	20.69	40.45	0	0	0	0	6.39	0
37	29.03	25.53	25.23	0	0	0	0	0	0
38	20.65	21.95	20.65	0	0	0	0	0	0
39	23.68	20.42	18.56	0	18.31	0	0	0	0
40	22.69	31.3	25.53	0	0	0	18.34	0	0
41	23.89	25.17	37.24	0	0	0	0	6.4	0
42	33.54	20.42	21.67	0	0	0	18.37	0	0
43	20.26	18.69	22.41	0	0	0	17.34	0	0
44	23.23	29.43	27.69	0	0	0	0	0	0
45	21.69	25.59	28.27	0	0	0	0	0	0
46	27.84	25.17	37.37	0	0	0	0	0	0
47	37.5	19.05	37.37	0	0	0	0	0	0
48	19.25	42.19	37.63	0	0	0	0	0	0
49	31.3	31.86	37.24	0	0	0	0	6.57	0
50	20.26	22.13	38.85	22.98	0	0	0	0	0
51	18.69	18.27	25.53	0	0	0	0	0	0
52	27.84	25.59	23.89	0	0	0	20.04	0	0
53	23.43	25	36.12	0	0	0	18.4	0	0
54	30.42	44.08	38.85	0	0	18.31	17.34	0	0
55	25	22.18	27.69	0	0	0	0	0	0
56	26.28	30.68	20.07	19.29	23.48	0	0	0	0
57	18.34	46.55	20.42	0	0	0	0	0	0
58	32.53	23.38	38.99	0	0	0	0	0	0
59	22.59	46.15	32.93	0	0	0	0	0	0
60	29.11	23.13	20.65	0	0	0	0	0	0
TOTAL	1511.66	1678.49	551.98	60.57	79.3	40.81	216.49	83.11	138.36

**MIDDEL PART(8:00 TO 9:00 AM )  
( DATE - 27/01/2022 ) THURSDAY**

MIN	car/jeep/van kmph	two wheeler kmph	rickshaw kmph	trucks kmph	bus kmph	tractor kmph	cycle kmph	pedestrain kmph	other vehicle kmph
1	38.65	21.88	27.63	0	0	0	0	11.37	0
2	27	29.5	23.9	0	0	0	30.34	0	0
3	21.08	19.29	28.54	0	0	0	0	11.03	23.68
4	18.58	26.25	21.43	0	0	0	0	0	0
5	42.64	23.73	25.89	0	0	0	0	0	0
6	28.71	16.51	18.35	0	0	0	0	0	0
7	32.82	29.5	20.79	0	0	0	0	0	0
8	23.2	24.29	31.84	0	0	0	0	0	0
9	18.93	16.89	17.25	24.77	0	0	0	12.13	0
10	25.34	26.92	22.91	0	0	0	0	0	0
11	23.2	23.43	44.95	0	0	0	0	0	0
12	18.85	18.5	19.8	0	0	0	0	0	29.43
13	37.05	27.63	21.33	0	0	0	0	0	0
14	28.71	21.43	28.54	0	0	0	0	0	0
15	22.97	18.31	20.38	0	0	0	0	0	0
16	18.54	23.43	20.89	0	0	0	0	0	0
17	21.28	32.93	18.42	0	0	0	0	0	0
18	23.2	21.88	26.77	0	0	0	0	0	0
19	20.79	18.31	20.89	0	0	0	0	0	0
20	28.2	29.5	18.85	0	0	0	0	0	0
21	19.34	19.13	25.96	0	0	0	0	0	19.74
22	31.64	28.45	18.5	0	0	0	19.64	0	0
23	17.25	22.86	19.89	0	0	1	0	0	0
24	21.28	16.6	20.89	0	0	0	0	0	0
25	31.33	27.63	18.09	30.34	0	0	0	0	0
26	20.79	22.86	25.34	0	0	0	0	0	0
27	18.46	18.46	18.02	0	0	0	0	0	0
28	28.45	34.32	30.73	0	0	0	0	0	0
29	22.97	21.68	18.24	0	0	0	0	0	0
30	17.91	28.37	21.78	0	0	0	0	0	0

31	23.14	18.73	28.45	0	0	0	0	0	0
32	18.42	22.91	21.83	0	0	0	0	0	0
33	27.55	20.38	18.02	0	0	0	0	0	0
34	22.86	16.23	31.64	0	0	0	0	0	0
35	18.39	22.91	21.33	0	0	0	0	0	0
36	29.78	20.79	22.97	0	0	0	0	0	0
37	21.78	18.35	20.47	0	0	0	0	12.78	0
38	17.35	34.32	37.05	0	29.43	0	0	0	0
39	32.82	21.23	16.6	0	0	0	0	10.94	0
40	27.79	18.42	18.5	0	0	0	0	0	0
41	18.46	20.79	20.89	0	0	0	0	0	0
42	22.86	18.35	25.34	0	24.83	0	0	0	0
43	22.91	19.89	23.03	0	0	0	0	0	0
44	19.34	18.65	17.35	0	0	0	0	0	0
45	22.8	22.86	40.39	0	0	0	0	12.13	0
46	18.81	31.33	19.89	0	0	0	0	0	0
47	29.87	20.79	18.09	0	0	0	0	0	0
48	35.44	17.94	21.88	0	0	0	0	0	0
49	20.89	25.96	18.05	0	0	0	0	0	0
50	18.5	18.5	22.91	0	0	0	0	0	0
51	25.96	21.33	28.54	0	0	0	0	0	0
52	23.03	16.54	22.97	0	0	0	0	0	0
53	27.55	34.44	18.81	0	0	0	0	0	0
54	34.44	16.89	28.54	0	19.05	0	0	14.29	0
55	23.73	20.38	16.95	0	0	0	0	0	0
56	27	18.02	21.78	0	0	0	0	0	0
57	17.98	31.64	28.54	0	0	29.59	0	15.47	0
58	26.92	26.92	17.15	0	0	0	0	0	0
59	21.88	21.88	22.91	0	0	0	0	0	30.34
60	28.54	23.73	27.79	0	0	0	33.64	0	0
TOTAL	1475.94	1371.6	1371.52	55.11	73.3	30.59	83.62	100.15	103.19

**MIDDEL PART(6:00 TO 7:00 PM )****( DATE - 27/01/2022 ) THURSDAY**

Min	Car/jeep/van Kmph	Two wheeler Kmph	Rickshaw Kmph	Trucks Kmph	Bus Kmph	Tractor Kmph	Cycle Kmph	Pedestrain Kmph	Other vehicle Kmph
1	40.45	23.68	29.43	0	0	0	0	11.37	0
2	28.8	31.3	23.9	0	0	0	30.34	0	0
3	22.88	21.09	30.34	0	0	0	0	11.03	23.68
4	20.38	28.05	23.23	0	0	0	0	0	0
5	44.44	25.53	27.69	0	0	0	0	0	0
6	30.51	18.31	20.15	0	0	0	0	0	0
7	34.62	31.3	22.59	0	0	0	0	0	0
8	25	26.09	33.64	0	0	0	0	0	0
9	20.73	18.69	19.05	24.77	0	0	0	12.13	0
10	27.14	28.72	24.71	0	0	0	0	0	0
11	25	25.23	46.75	0	0	0	0	0	0
12	20.65	20.3	21.6	0	0	0	0	0	29.43
13	38.85	29.43	23.13	0	0	0	0	0	0
14	30.51	23.23	30.34	0	0	0	0	0	0
15	24.77	20.11	22.18	0	0	0	0	0	0
16	20.34	25.23	22.69	0	0	0	0	0	0
17	23.08	34.73	20.22	0	0	0	0	0	0
18	25	23.68	28.57	0	0	0	0	0	0
19	22.59	20.11	22.69	0	0	0	0	0	0
20	30	31.3	20.65	0	0	0	0	0	0
21	21.14	20.93	27.76	0	0	0	0	0	19.74
22	33.44	30.25	20.3	0	0	0	19.64	0	0
23	19.05	24.66	21.69	0	0	1	0	0	0
24	23.08	18.4	22.69	0	0	0	0	0	0
25	33.13	29.43	19.89	30.34	0	0	0	0	0
26	22.59	24.66	27.14	0	0	0	0	0	0
27	20.26	20.26	19.82	0	0	0	0	0	0
28	30.25	36.12	32.53	0	0	0	0	0	0
29	24.77	23.48	20.04	0	0	0	0	0	0
30	19.71	30.17	23.58	0	0	0	0	0	0

31	24.94	20.53	30.25	0	0	0	0	0	0
32	20.22	24.71	23.63	0	0	0	0	0	0
33	29.35	22.18	19.82	0	0	0	0	0	0
34	24.66	18.03	33.44	0	0	0	0	0	0
35	20.19	24.71	23.13	0	0	0	0	0	23.13
36	31.58	22.59	24.77	0	0	0	0	0	0
37	23.58	20.15	22.27	0	0	0	0	12.78	0
38	19.15	36.12	38.85	0	29.43	0	0	0	0
39	34.62	23.03	18.4	0	0	0	0	10.94	0
40	29.59	20.22	20.3	0	0	0	0	0	0
41	20.26	22.59	22.69	22.69	0	0	0	0	0
42	24.66	20.15	27.14	0	24.83	0	30.25	0	0
43	24.71	21.69	24.83	0	0	0	0	0	0
44	21.14	20.45	19.15	0	0	0	0	0	0
45	24.6	24.66	42.19	0	0	0	22.59	12.13	0
46	20.61	33.13	21.69	0	0	0	0	0	0
47	31.67	22.59	19.89	0	31.3	0	0	0	0
48	37.24	19.74	23.68	0	0	0	0	0	0
49	22.69	27.76	19.85	0	23.23	0	0	0	0
50	20.3	20.3	24.71	0	0	0	0	0	0
51	27.76	23.13	30.34	0	0	0	0	0	0
52	24.83	18.34	24.77	0	0	23.13	0	0	0
53	29.35	36.24	20.61	0	0	0	0	0	0
54	36.24	18.69	30.34	0	19.05	0	0	14.29	0
55	25.53	22.18	18.75	0	0	0	0	0	24.71
56	28.8	19.82	23.58	0	0	0	20.22	0	0
57	19.78	33.44	30.34	0	0	29.59	0	15.47	0
58	28.72	28.72	18.95	0	0	0	0	0	0
59	23.68	23.68	24.71	0	0	0	0	0	30.34
60	30.34	25.53	29.59	0	0	0	33.64	0	0
TOTAL	1583.94	1479.6	1477.72	77.8	127.83	53.72	156.69	100.15	151.03



**MIDDEL PART(8:00 TO 9:00 AM )****( DATE - 27/01/2022 ) THURSDAY**

MIN	car/jeep/van kmph	two wheeler kmph	rikshaw kmph	truck kmph	bus kmph	tractor kmph	cycle kmph	pedestrian kmph	other vehicle kmph
1	36.61	27.63	29.5	0	0	0	0	0	0
2	26.6	23.2	22.91	0	0	0	0	0	19.89
3	22.41	16.95	18.31	0	0	0	23.68	0	0
4	35.29	21.88	20.38	0	0	0	0	0	0
5	24.11	26.77	23.49	0	0	0	0	0	0
6	20.53	20.38	18.27	0	0	0	0	0	0
7	38.99	18.93	21.28	0	24.83	0	0	0	0
8	22.18	27.63	38.2	0	0	0	0	12.13	0
9	29.11	34.44	21.43	0	0	0	18.34	0	0
10	35.88	20.38	26.11	0	0	0	0	0	0
11	25.23	21.33	18.69	0	0	19.82	0	0	0
12	22.13	28.54	29.5	0	0	0	0	0	24.83
13	26.02	20.89	18.42	0	0	0	0	0	0
14	39.13	16.89	25.96	0	0	0	0	0	0
15	20.45	28.71	18.93	0	0	0	15.72	0	0
16	38.99	20.89	28.62	0	0	0	0	0	0
17	27.84	18.93	23.2	0	0	0	0	0	0
18	22.18	20.79	16.95	0	19.89	0	0	0	23.13
19	31.76	18.31	27.63	0	0	0	18.69	18.69	0
20	29.92	29.5	23.03	0	0	0	0	0	0
21	22.83	17.98	18.42	0	0	0	0	0	0
22	25.35	22.91	27.79	0	0	0	0	13.67	0
23	39.13	18.09	20.79	0	0	24.77	0	0	0
24	20.45	20.29	18.5	0	0	0	0	12.07	0
25	27.91	27.79	20.79	0	0	0	16.67	0	0
26	39.27	21.94	20.79	0	0	0	0	0	0
27	25.35	18.65	27.63	0	0	0	0	0	0
28	35.53	23.49	21.33	0	0	0	0	0	0
29	22.88	27.55	20.89	0	0	0	0	13.53	0
30	25.35	19.13	26.77	0	0	0	0	0	0

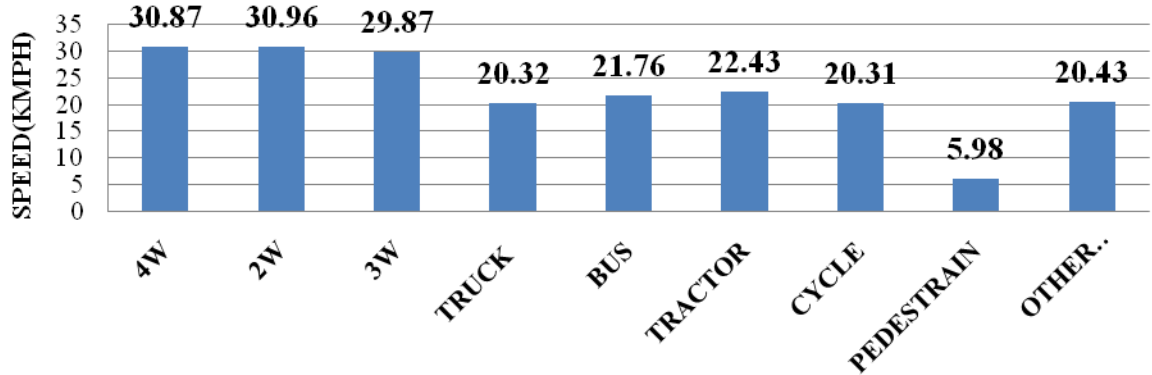
31	39.13	20.75	18.73	0	0	0	18.4	12.46	0
32	27.98	21.88	27.79	0	0	0	0	0	0
33	29.11	18.35	18.09	0	0	0	0	13.67	0
34	27.84	26.92	20.29	0	0	0	0	0	0
35	34.29	23.49	18.69	0	0	0	0	0	33.13
36	27	16.54	20.89	0	0	0	0	0	0
37	22.18	23.08	27.79	0	0	0	0	0	0
38	33.13	28.54	21.78	0	27.69	0	0	14.08	0
39	28.65	18.31	16.54	0	0	0	0	0	0
40	26.73	34.32	28.54	0	0	0	16.44	0	0
41	34.29	28.71	35.44	0	0	0	0	0	0
42	35.29	18.09	27.63	0	0	0	15.65	16.46	0
43	22.69	20.38	16.89	0	0	0	0	0	0
44	31.86	31.33	25.89	0	0	0	0	0	0
45	34.29	21.88	22.91	29.43	0	0	15.47	0	0
46	28.2	18.89	18.73	0	0	0	0	18.34	0
47	22.18	20.79	27.63	0	0	0	16.19	0	0
48	29.11	27.79	27.63	0	0	0	0	0	0
49	41.38	16.51	18.05	0	0	0	0	0	0
50	25.84	35.44	22.86	0	0	0	18.69	0	0
51	24.11	20.89	26.11	0	0	0	0	0	0
52	34.07	16.95	17.91	0	0	0	14.94	0	0
53	22.41	21.43	27.47	0	0	0	16.46	0	0
54	26.02	26.92	20.38	0	0	0	0	14.12	0
55	32.05	16.54	18.93	0	0	0	0	0	0
56	25.35	20.89	21.43	0	0	0	0	0	0
57	22.31	27.79	26.11	0	0	0	0	0	0
58	26.02	23.2	18.85	0	0	0	0	0	0
59	33.13	16.51	27.55	0	24.83	0	0	0	0
60	21.64	18.05	21.88	0	0	0	0	12.3	0
TOTAL	1727.68	1361.93	1383.92	29.43	97.24	44.59	225.33	171.52	100.97

**MIDDEL PART(6:00 TO 7:00 PM )****( DATE - 27/01/2022 ) THURSDAY**

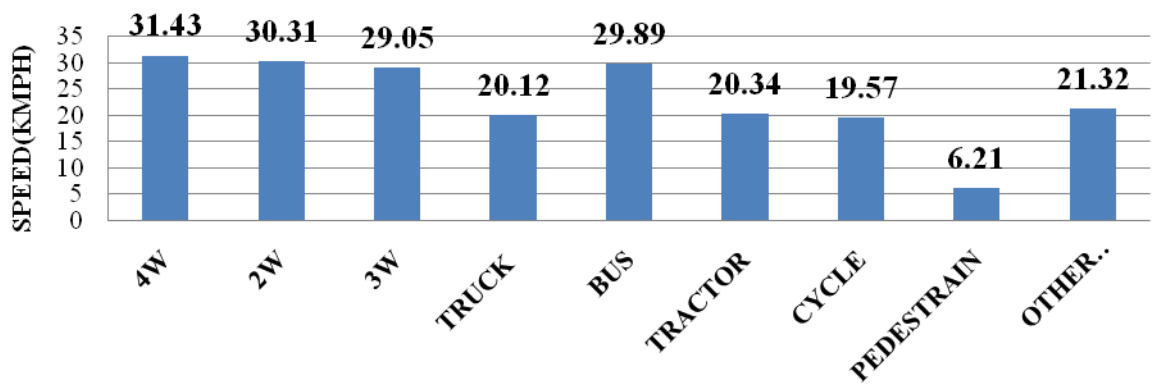
Min	Car/jeep/van Kmph	Two wheeler Kmph	Rickshaw Kmph	Truck Kmph	Bus Kmph	Tractor Kmph	Cycle Kmph	Pedestrain Kmph	Other vehicle Kmph
1	31.3	29.43	31.3	0	0	0	0	0	0
2	23.68	25	24.71	0	0	0	0	0	19.89
3	20.3	18.75	20.11	0	0	0	23.68	0	0
4	30.34	23.68	22.18	0	0	0	0	0	0
5	21.69	28.57	25.29	0	0	0	0	0	0
6	18.75	22.18	20.07	0	0	0	0	0	0
7	33.03	20.73	23.08	0	24.83	0	0	0	0
8	20.11	29.43	40	0	0	0	0	12.13	0
9	25.65	36.24	23.23	0	0	0	18.34	0	0
10	30.77	22.18	27.91	0	0	0	0	0	0
11	22.59	23.13	20.49	0	0	19.82	0	0	0
12	20.07	30.34	31.3	0	0	0	0	0	24.83
13	23.23	22.69	20.22	0	0	0	0	0	0
14	33.13	18.69	27.76	0	0	0	0	0	0
15	18.69	30.51	20.73	0	0	0	15.72	0	0
16	33.03	22.69	30.42	0	0	0	0	0	0
17	24.66	20.73	25	0	0	0	0	0	0
18	20.11	22.59	18.75	0	19.89	0	0	0	23.13
19	27.69	20.11	29.43	0	0	0	18.69	18.69	0
20	26.28	31.3	24.83	0	0	0	0	0	0
21	20.65	19.78	20.22	0	0	0	0	0	0
22	22.69	24.71	29.59	0	0	0	0	13.67	0
23	33.13	19.89	22.59	0	0	24.77	0	0	0
24	18.69	22.09	20.3	0	0	0	0	12.07	0
25	24.71	29.59	22.59	0	0	0	16.67	0	0
26	33.23	23.74	22.59	0	0	0	0	0	0
27	22.69	20.45	29.43	0	0	0	0	0	0
28	30.51	25.29	23.13	0	0	0	0	0	0
29	20.69	29.35	22.69	0	0	0	0	13.53	0
30	22.69	20.93	28.57	0	0	0	0	0	0

31	33.13	22.55	20.53	0	0	0	18.4	12.46	0
32	24.77	23.68	29.59	0	0	0	0	0	0
33	25.65	20.15	19.89	0	0	0	0	13.67	0
34	24.66	28.72	22.09	0	0	0	0	0	0
35	29.59	25.29	20.49	0	0	0	0	0	33.13
36	24	18.34	22.69	0	0	0	0	0	0
37	20.11	24.88	29.59	0	0	0	0	0	0
38	28.72	30.34	23.58	0	27.69	0	0	14.08	0
39	25.29	20.11	18.34	0	0	0	0	0	0
40	23.79	36.12	30.34	0	0	0	16.44	0	0
41	29.59	30.51	37.24	0	0	0	0	0	0
42	30.34	19.89	29.43	0	0	0	15.65	16.46	0
43	20.53	22.18	18.69	0	0	0	0	0	0
44	27.76	33.13	27.69	0	0	0	0	0	0
45	29.59	23.68	24.71	29.43	0	0	15.47	0	0
46	24.94	20.69	20.53	0	0	0	0	18.34	0
47	20.11	22.59	29.43	0	0	0	16.19	0	0
48	25.65	29.59	29.43	0	0	0	0	0	0
49	34.73	18.31	19.85	0	0	0	0	0	0
50	23.08	37.24	24.66	0	0	0	18.69	0	0
51	21.69	22.69	27.91	0	0	0	0	0	0
52	29.43	18.75	19.71	0	0	0	14.94	0	0
53	20.3	23.23	29.27	0	0	0	16.46	0	0
54	23.23	28.72	22.18	0	0	0	0	14.12	0
55	27.91	18.34	20.73	0	0	0	0	0	0
56	22.69	22.69	23.23	0	0	0	0	0	0
57	20.22	29.59	27.91	0	0	0	0	0	0
58	23.23	25	20.65	0	0	0	0	0	0
59	28.72	18.31	29.35	0	24.83	0	0	0	0
60	19.67	19.85	23.68	0	0	0	0	12.3	0
TOTAL	1517.89	1469.93	1491.92	29.43	97.24	44.59	225.33	171.52	100.97

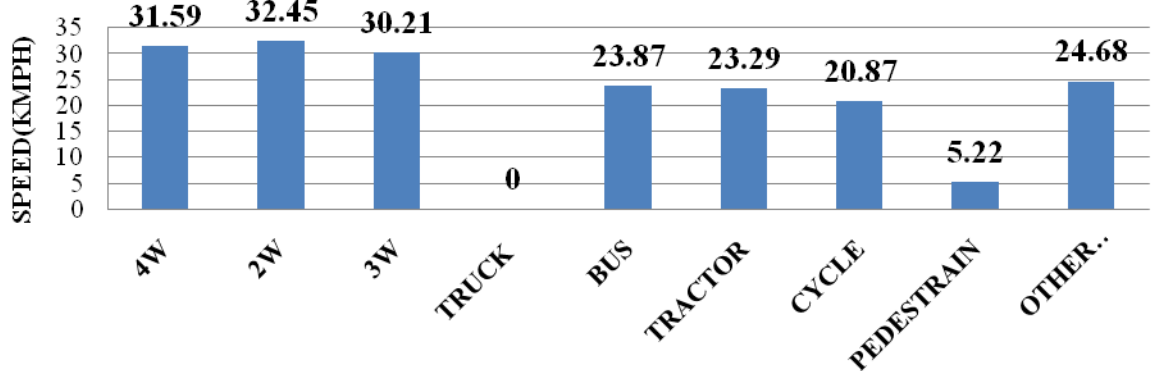
### MIDDEL PART(26/01/2022) ( 8:00 TO 9:00 AM )



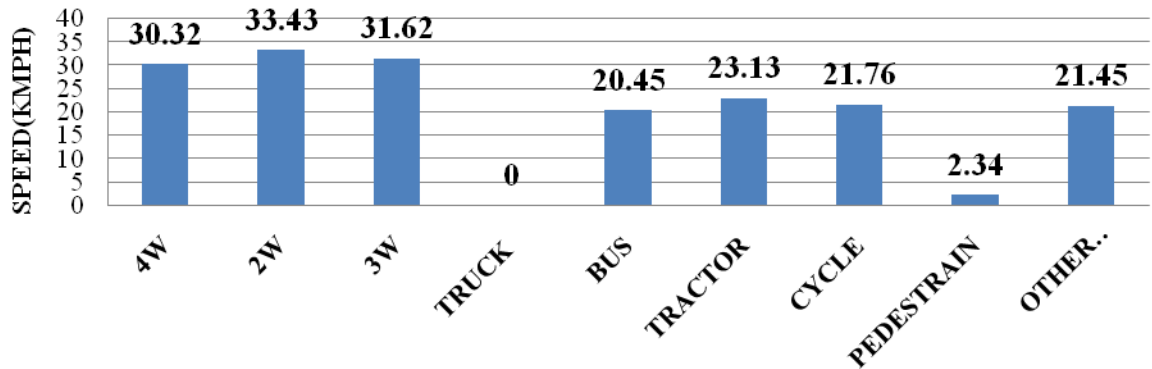
### MIDDEL PART(26/01/2022) ( 8:00 TO 9:00 AM )



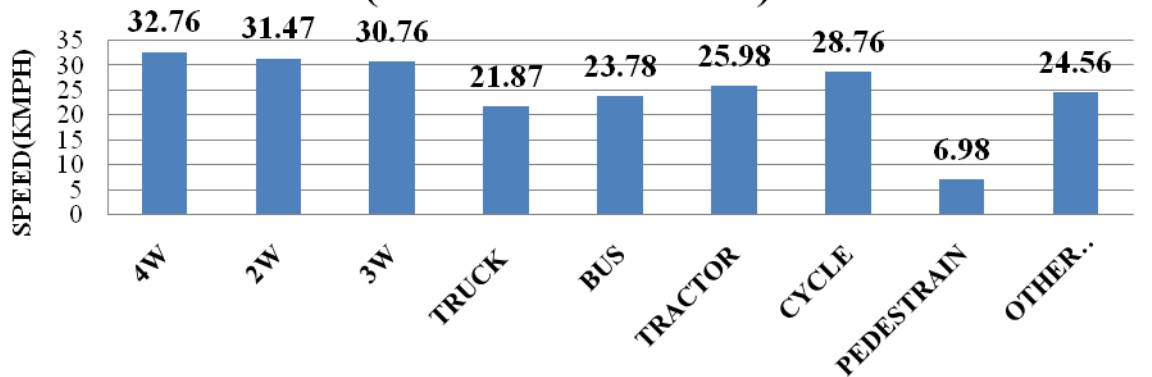
### MIDDEL PART(26/01/2022) ( 6:00 TO 7:00 PM )



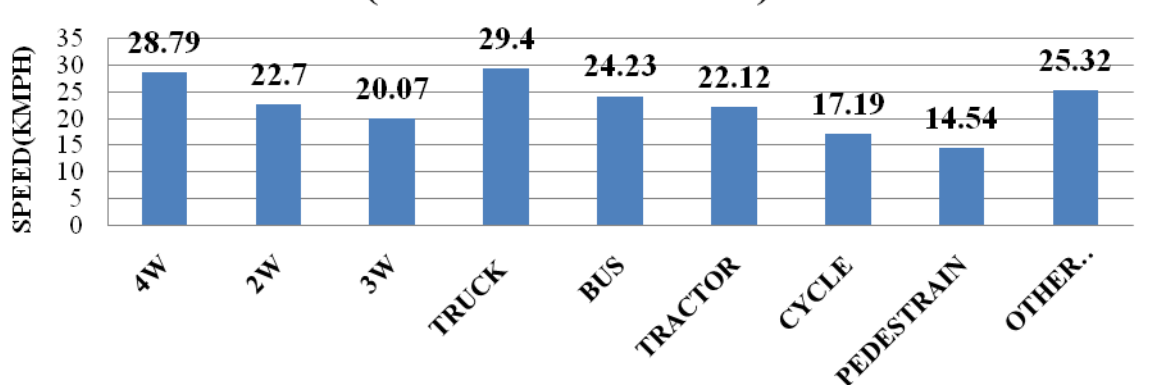
### MIDDEL PART(26/01/2022) ( 6:00 TO 7:00 PM )



### MIDDEL PART(27/01/2022) ( 8:00 TO 9:00 AM )



### MIDDEL PART(27/01/2022) ( 8:00 TO 9:00 AM )



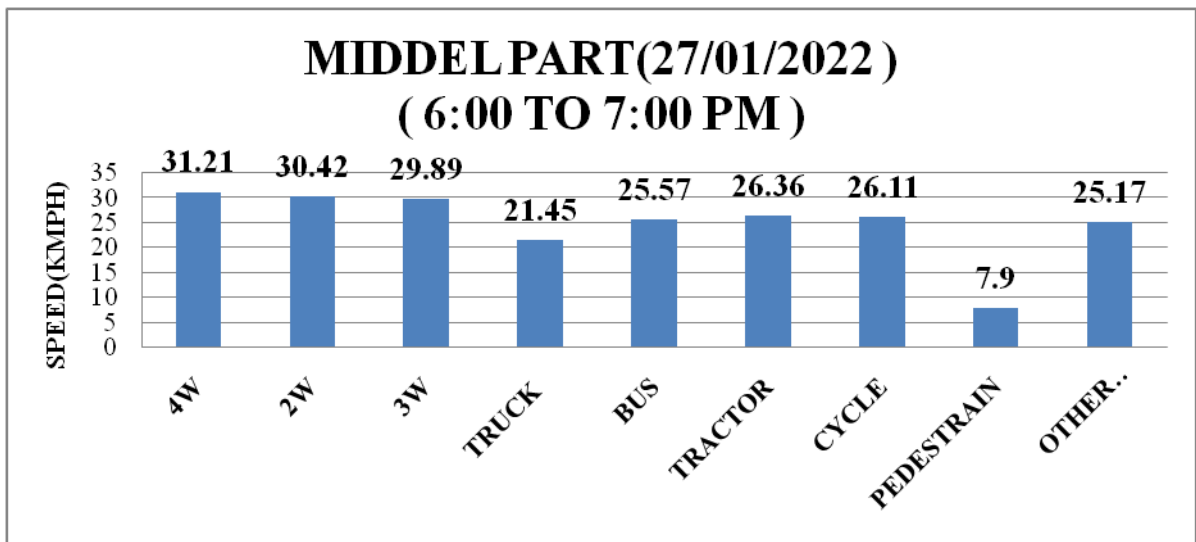
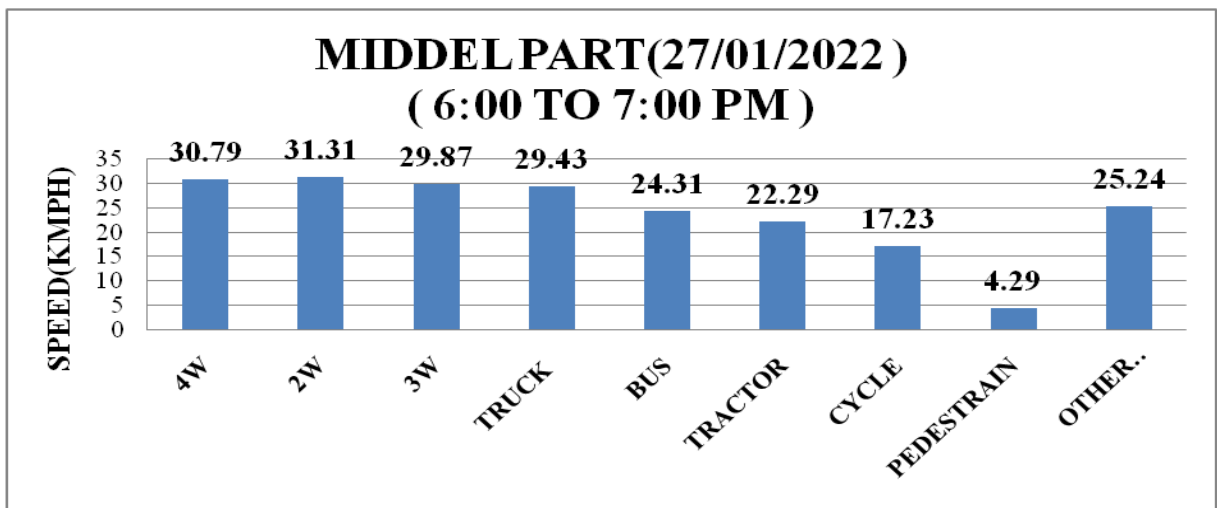


Fig 4.3 middle part spot speed study pie chart

(2W- two wheeler, 3W - three wheeler, 4W- four wheeler)

## 4.5 VEHICLE HEADWAY

MIDDEL PART - (TIME - 8:00 TO 9:00 AM)

( DATE - 26/01/2022 )WEDNESDAY

Min	Car/jeep/van	Two wheeler	Rikshaw
	m/s	m/s	m/s
1	8.2	4.17	6.57
2	8.51	3.99	6.83
3	6.62	5.34	5.23
4	21.31	1.48	15.98
5	10.77	3.07	8.65
6	10.91	3.03	8.75
7	5.78	6.28	4.49
8	8	4.29	6.4
9	8.72	3.89	7
10	11.36	2.89	9.11
11	6.48	5.48	5.1
12	18.07	1.76	13.91
13	9.74	3.43	7.83
14	18.06	1.76	13.9
15	11.36	2.89	9.11
16	5.73	6.34	4.45
17	18.38	1.73	14.11
18	10.91	3.03	8.75
19	8.7	3.9	6.98
20	10.91	3.03	8.75
21	9.53	3.52	7.66
22	6.17	5.8	4.84
23	10.83	3.05	8.69
24	6.01	5.99	4.7
25	8.67	3.91	6.96
26	12.88	2.53	10.25
27	11.36	2.89	9.11
28	6.37	5.59	5.01
29	6.15	5.83	4.82
30	7.77	4.43	6.21



31	5.82	6.22	4.53	
32	10.91	3.03	8.75	
33	4.48	8.62	3.33	
34	7.52	4.6	6	
35	10.42	3.19	8.37	
36	6.37	5.59	5.01	
37	5.82	6.22	4.53	
38	7.52	4.6	6	
39	6.26	5.7	4.92	
40	10.83	3.05	8.69	
41	7	5	5.55	
42	11.28	2.92	9.04	
43	6.42	5.53	5.06	
44	3.85	10.51	2.75	
45	7.59	4.55	6.06	
46	4.15	9.52	3.02	
47	12.16	2.69	9.71	
48	5.22	7.1	4	
49	20.9	1.51	15.73	
50	6.88	5.11	5.45	
51	3.83	10.61	2.73	
52	6.21	5.76	4.87	
53	7.52	4.6	6	
54	7.56	4.58	6.03	
55	8	4.29	6.4	
56	12.16	2.69	9.71	
57	6.76	5.21	5.35	
58	5.11	7.3	3.89	
59	10.83	3.05	8.69	
60	7.32	4.75	5.83	
<b>TOTAL</b>	<b>540.95</b>	<b>273.38</b>	<b>426.12</b>	<b>9415.7</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 26/01/2022 )WEDNESDAY**

<b>Min</b>	<b>Car/jeep/van</b>	<b>Two wheeler</b>	<b>Rickshaw</b>
	<b>m/s</b>	<b>m/s</b>	<b>m/s</b>
1	5.9	6.13	6
2	6.17	5.81	5.69
3	3.79	2.78	3.78
4	5.42	6.81	6.64
5	5.91	6.13	5.99
6	8.43	4.04	3.99
7	6.79	5.19	5.1
8	8.75	3.88	3.82
9	8.62	3.94	3.89
10	9.15	3.69	3.64
11	6.58	5.39	5.28
12	4.89	2.78	2.76
13	8.62	3.94	3.89
14	5.5	6.67	6.52
15	8	4.29	4.23
16	6.8	5.18	5.08
17	5.49	6.69	6.53
18	5.67	6.44	6.29
19	4.37	8.93	8.65
20	8.43	4.04	3.99
21	6.04	5.97	5.84
22	8.65	3.93	3.87
23	5.35	6.91	6.74
24	6.71	5.26	5.16
25	9.8	3.41	3.37
26	8.88	3.81	3.76
27	4.76	3.21	7.77
28	6.61	5.36	5.26
29	5.37	6.88	6.71
30	9.43	3.56	3.52

31	6.77	5.21	5.11	
32	4.27	9.2	8.9	
33	7.35	4.73	4.65	
34	6.34	5.63	5.51	
35	8.7	3.9	3.85	
36	6.61	5.36	5.26	
37	6.77	5.21	5.11	
38	8.7	3.9	3.85	
39	6.64	5.33	5.23	
40	5.89	6.15	6.01	
41	6.45	5.51	5.4	
42	5.79	6.28	6.13	
43	6.59	5.37	5.27	
44	7.77	4.44	4.37	
45	6.33	5.64	5.53	
46	7.56	4.58	4.51	
47	5.79	6.27	6.13	
48	6.99	5.01	4.92	
49	5.42	6.8	6.63	
50	6.48	5.48	5.38	
51	7.79	4.42	4.35	
52	6.65	5.32	5.22	
53	5.37	6.88	6.71	
54	9.46	3.55	3.5	
55	8.5	4.01	3.95	
56	5.79	6.27	6.13	
57	4.68	8.17	7.94	
58	7.04	4.97	4.88	
59	8.36	4.08	4.02	
60	4.89	2.65	7.52	
<b>TOTAL</b>	<b>406.62</b>	<b>311.41</b>	<b>315.71</b>	<b>10281.8</b>

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)****( DATE - 26/01/2022 )WEDNESDAY**

Min	Car/jeep/van	Two wheeler	Rickshaw
	m/s	m/s	m/s
1	6.58	4.58	5.63
2	15.78	2.67	3.72
3	2.9	1.78	2.83
4	13	3.67	1.67
5	8.14	3.89	4.94
6	2.9	3.56	4.61
7	4.92	2.92	3.97
8	2.69	2.56	3.61
9	2.77	1.98	3.03
10	2.47	2.56	3.61
11	5.42	3.42	4.47
12	12.66	2.67	3.72
13	2.77	1.89	2.94
14	11.71	1.89	2.94
15	3.24	1.24	2.29
16	12.56	2.9	3.95
17	11.85	3.9	4.95
18	2.56	2.78	3.83
19	13.65	5.34	6.39
20	2.9	3.78	4.83
21	12.65	4.69	5.74
22	2.75	4.23	5.28
23	3.89	1.89	2.94
24	5.09	3.09	4.14
25	15.74	5.43	6.48
26	2.62	2.56	3.61
27	2.67	1.67	2.72
28	5.35	3.35	4.4
29	3.21	1.21	2.26
30	2.34	1.76	2.81

31	4.96	2.96	4.01	
32	15.26	3.78	4.83	
33	3.95	1.95	3	
34	13.67	4.78	5.83	
35	2.72	2.45	3.5	
36	5.35	3.35	4.4	
37	4.96	2.96	4.01	
38	2.72	1.65	2.7	
39	10.59	3.67	4.72	
40	3.24	1.24	2.29	
41	5.78	3.78	4.83	
42	2.7	2.56	3.61	
43	12.5	3.89	4.94	
44	3.45	1.45	2.5	
45	13.58	3.89	4.94	
46	14.67	4.89	5.94	
47	8.91	6.91	7.96	
48	17.56	3.9	4.95	
49	14.4	2.34	3.39	
50	5.7	3.7	4.75	
51	3.43	3.56	4.61	
52	5.24	3.24	4.29	
53	18.38	3.68	4.73	
54	2.32	0.32	1.37	
55	2.85	3.21	4.26	
56	8.91	6.91	7.96	
57	13.86	4.8	5.85	
58	4.43	2.43	3.48	
59	16.49	3.89	4.94	
60	3.9	1.9	2.95	
<b>TOTAL</b>	<b>444.25</b>	<b>189.9</b>	<b>249.85</b>	<b>12334</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 26/01/2022 )WEDNESDAY**

<b>Min</b>	<b>Car/jeep/van</b>	<b>Two wheeler</b>	<b>Rickshaw</b>
	<b>m/s</b>	<b>m/s</b>	<b>m/s</b>
1	1.34	2.65	6.43
2	0.67	1.87	5.8
3	1.56	3.56	3.9
4	0.48	2.67	4.68
5	2.56	1.78	4.78
6	1.9	18.75	1.65
7	3.78	1.89	3.68
8	4.35	7.41	4.41
9	2.45	13.95	2.25
10	2.57	13.22	2.38
11	1.9	0.59	2.78
12	2.79	12.05	2.62
13	3.58	9.15	3.51
14	4.32	7.46	4.37
15	3.65	8.96	3.59
16	4.9	1.21	4.67
17	2.78	12.1	2.61
18	8.24	3.78	9.44
19	6.91	4.54	7.62
20	8.24	3.78	9.44
21	7.43	4.21	8.32
22	5.22	1.65	3.26
23	8.2	3.8	9.38
24	5.1	1.78	4.67
25	6.9	4.55	7.6
26	9.32	3.33	3.87
27	8.5	2.21	3.67
28	5.36	5.93	5.63
29	5.2	1.56	2.78
30	6.32	4.99	6.84

31	4.96	6.43	5.14	
32	8.24	3.56	3.67	
33	3.96	0.9	3.98	
34	6.15	5.13	6.62	
35	7.96	4.67	7.37	
36	5.36	5.93	5.63	
37	4.96	1.65	2.56	
38	6.15	5.13	6.62	
39	5.28	0.45	3.9	
40	8.2	3.8	9.38	
41	5.79	5.46	6.17	
42	8.45	3.68	9.74	
43	5.39	5.89	5.67	
44	3.46	1.23	2.87	
45	6.19	5.09	6.68	
46	3.7	1.21	5.43	
47	8.94	4.89	6.99	
48	4.52	2.78	3.21	
49	2.67	12.66	2.49	
50	5.71	5.54	6.07	
51	3.44	3.89	9.12	
52	5.25	0.56	3.9	
53	6.15	5.13	6.62	
54	6.17	5.11	6.65	
55	6.47	4.87	7.03	
56	8.94	4.78	7.18	
57	5.63	5.63	5.96	
58	4.44	1.23	4.67	
59	8.2	3.8	9.38	
60	6.01	5.25	6.45	
<b>TOTAL</b>	<b>313.23</b>	<b>291.68</b>	<b>323.78</b>	<b>8067.4</b>

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)**

**( DATE - 27/01/2022 )THURSDAY**

Min	Car/jeep/van	Two wheeler	Rickshaw
	m/s	m/s	m/s
1	7.87	2.45	4.6
2	8.43	4.04	6.61
3	5.7	3.76	3.76
4	7.08	4.94	5.52
5	3.28	3.6	7.32
6	8.59	3.95	4.76
7	9.62	3.48	7.53
8	7.5	4.62	7.54
9	4.75	8	3.76
10	6.49	5.46	4.29
11	9.2	3.66	7.22
12	3.56	4.32	3.54
13	5.78	6.28	4.63
14	7.23	4.82	5.64
15	7.53	4.59	5.89
16	9.65	3.47	7.56
17	7.21	4.83	5.63
18	8.4	3.67	2.56
19	2.75	2.56	3.5
20	8.58	3.96	4.32
21	8.17	3.57	7.37
22	7.49	4.62	3.68
23	3.76	2.8	4.28
24	9.46	3.54	7.42
25	7.48	4.63	5.85
26	6.89	5.09	4.32
27	7.5	3.76	4.65
28	9.26	2.9	8.82
29	9.54	3.78	7.01
30	6.89	5.09	8.34



31	9.58	3.49	7.51	
32	8.56	3.67	7.19	
33	8.67	3.91	6.8	
34	7.32	4.75	5.72	
35	7.65	3.67	7.19	
36	9.26	3.63	7.26	
37	9.58	3.49	7.51	
38	9.65	2.54	9.87	
39	9.32	3.78	7.01	
40	6.79	2.67	9.46	
41	8.96	3.77	7.02	
42	5.4	2.65	3.9	
43	9.23	3.64	7.24	
44	7.14	3.21	8.09	
45	8.72	2.15	2.58	
46	5.6	6.52	4.27	
47	7.73	3.56	7.39	
48	7.58	4.56	5.93	
49	7.09	6.89	4.06	
50	9.01	3.75	7.07	
51	7.54	4.59	3.28	
52	7.11	4.91	5.54	
53	4.3	9.09	3.13	
54	6.93	5.06	5.4	
55	4.75	8	3.21	
56	7.73	4.46	6.05	
57	8.49	3.78	7.01	
58	5.34	6.91	4.05	
59	5.84	6.2	2.78	
60	4.89	3.21	8.09	
<b>TOTAL</b>	<b>441.4</b>	<b>258.77</b>	<b>349.52</b>	<b>10909</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 27/01/2022 )THURSDAY**

<b>Min</b>	<b>Car/jeep/van</b>	<b>Two wheeler</b>	<b>Rickshaw</b>
	<b>m/s</b>	<b>m/s</b>	<b>m/s</b>
1	3.55	2.55	3.05
2	5.56	4.56	5.06
3	3.12	2.12	2.62
4	6.24	5.24	5.74
5	1.15	0.15	0.65
6	4.26	3.26	3.76
7	5.12	4.12	4.62
8	4.13	3.13	3.63
9	4.18	3.18	3.68
10	3.98	2.98	3.48
11	5.26	4.26	4.76
12	2.19	1.19	1.69
13	4.18	3.18	3.68
14	6.15	5.15	5.65
15	4.45	3.45	3.95
16	5.11	4.11	4.61
17	6.16	5.16	5.66
18	3.18	2.18	2.68
19	2.78	1.78	2.28
20	4.26	3.26	3.76
21	5.67	4.67	5.17
22	4.17	3.17	3.67
23	2.16	1.16	1.66
24	5.17	4.17	4.67
25	6.01	5.01	5.51
26	4.08	3.08	3.58
27	3.15	2.15	2.65
28	5.24	4.24	4.74
29	2.56	1.56	2.06
30	3.88	2.88	3.38

31	5.13	4.13	4.63	
32	3.55	2.55	3.05	
33	4.78	3.78	4.28	
34	6.1	5.1	5.6	
35	4.15	3.15	3.65	
36	5.24	4.24	4.74	
37	5.13	4.13	4.63	
38	4.15	3.15	3.65	
39	5.22	4.22	4.72	
40	3.55	2.55	3.05	
41	5.35	4.35	4.85	
42	3.14	2.14	2.64	
43	5.25	4.25	4.75	
44	6.2	5.2	5.7	
45	5.44	4.44	4.94	
46	4.67	3.67	4.17	
47	5.88	4.88	5.38	
48	4.99	3.99	4.49	
49	6.23	5.23	5.73	
50	5.33	4.33	4.83	
51	4.55	3.55	4.05	
52	6.22	5.22	5.72	
53	4.99	3.99	4.49	
54	6.33	5.33	5.83	
55	4.23	3.23	3.73	
56	5.88	4.88	5.38	
57	2.97	1.97	2.47	
58	4.96	3.96	4.46	
59	4.29	3.29	3.79	
60	1.92	0.92	1.42	
<b>TOTAL</b>	<b>272.92</b>	<b>212.92</b>	<b>242.92</b>	<b>11172</b>

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)****( DATE - 27/01/2022 )THURSDAY**

Min	Car/jeep/van	Two wheeler	Rickshaw
	m/s	m/s	m/s
1	4.67	6.29	6.71
2	5.37	5.48	3.57
3	1.54	3.56	3.56
4	3.21	2.56	9.96
5	4.67	6.29	3.78
6	4.56	6.44	6.88
7	2.49	3.25	6.47
8	3.56	8.2	8.93
9	6.45	4.58	4.8
10	3.07	3.25	4.78
11	6.48	4.56	4.78
12	3.56	8.2	8.93
13	7.56	3.92	4.08
14	2.47	3.56	5.76
15	2.58	4.25	4.37
16	2.49	3.45	7.45
17	8.2	3.61	3.75
18	3.56	3.12	8.93
19	4.48	6.55	7
20	5.68	5.19	5.47
21	3.64	8.02	2.68
22	6.48	4.56	4.78
23	2.47	3.25	5.78
24	4.37	6.71	7.19
25	8.08	3.67	3.81
26	2.45	4.25	6.57
27	7.58	3.91	4.07
28	3.16	4.25	7.56
29	3.27	3.57	3.56
30	6.9	4.29	2.68

31	2.47	5.36	7.45	
32	7.96	3.72	3.87	
33	6.45	4.58	4.8	
34	8.2	3.61	3.75	
35	3.49	4.36	9.11	
36	8.45	3.51	3.64	
37	3.56	8.2	3.68	
38	3.88	7.53	8.14	
39	6.99	4.23	4.42	
40	6.38	4.63	4.85	
41	3.49	8.35	6.45	
42	3.21	4.36	7.45	
43	3.26	8.93	5.34	
44	4.44	6.61	7.08	
45	3.49	8.35	4.36	
46	7.61	3.89	4.05	
47	3.56	8.2	8.93	
48	6.45	4.58	4.8	
49	2.19	4.26	5.37	
50	7.36	4.02	4.19	
51	8.47	3.5	3.56	
52	3.56	8.2	8.93	
53	3.87	7.56	8.17	
54	6.48	4.56	4.78	
55	4.34	6.75	7.24	
56	8.54	3.47	3.6	
57	4.26	6.88	7.39	
58	6.24	4.73	4.97	
59	3.88	7.53	8.14	
60	3.26	8.93	5.46	
<b>TOTAL</b>	<b>290.87</b>	<b>316.17</b>	<b>342.6</b>	<b>4137.4</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)****( DATE - 27/01/2022 )THURSDAY**

Min	Car/jeep/van	Two wheeler	Rickshaw
	m/s	m/s	m/s
1	2.43	2.53	2.23
2	3.21	3.31	3.01
3	3.27	3.37	3.07
4	2.9	3	2.7
5	2.43	2.53	2.23
6	4.36	4.46	4.16
7	2.3	2.4	2.1
8	3.76	3.86	3.56
9	5.31	5.41	5.11
10	2.79	2.89	2.59
11	2.43	2.53	2.23
12	4.32	4.42	4.12
13	9.3	3.25	9.1
14	2.29	2.39	2.09
15	4.32	4.42	4.12
16	2.3	2.4	2.1
17	6.44	6.54	6.24
18	2.65	2.75	2.98
19	3.9	4	3.7
20	4.78	4.88	4.58
21	3.56	3.66	3.36
22	3.52	3.62	3.32
23	2.29	2.39	2.09
24	3.56	3.66	3.36
25	6.36	6.46	6.16
26	2.27	2.37	2.07
27	3.25	3.35	3.05
28	2.85	2.95	2.65
29	4.32	4.42	4.12
30	3.56	3.66	3.36

31	2.29	2.39	2.09	
32	6.29	6.39	6.09	
33	5.31	5.41	5.11	
34	6.44	6.54	6.24	
35	3.13	3.23	2.93	
36	7.5	7.6	7.3	
37	3.76	3.86	2.45	
38	3.44	3.54	3.24	
39	5.67	5.77	5.47	
40	7.92	8.02	7.72	
41	3.13	3.23	2.93	
42	2.9	3	2.7	
43	3.56	3.66	3.36	
44	3.86	3.96	3.66	
45	3.13	3.23	2.93	
46	6.07	6.17	5.87	
47	2.67	2.77	1.56	
48	5.31	5.41	5.11	
49	2.04	2.14	1.84	
50	9.75	9.85	9.55	
51	2.56	2.66	2.36	
52	3.18	3.28	2.98	
53	3.56	3.66	3.36	
54	9.3	9.4	9.1	
55	3.79	3.89	3.59	
56	3.67	3.77	3.47	
57	4.87	4.97	4.67	
58	3.78	3.88	3.58	
59	3.44	3.54	3.24	
60	3.89	3.99	3.69	
<b>TOTAL</b>	<b>247.23</b>	<b>247.08</b>	<b>233.74</b>	<b>3915.8</b>

#### 4.7 ACCIDENT ANALYSIS

ક્ર. નં.	કુ.ટ.નં. ક્રમ	કુ.બ.તા. વ	કુ.જા. તા.વ	કુલોનું સ્થાન	ક્રોસાવેનું નામ	મારોવેનું નામ	ઉં. મં. ર	મારોવે વાહન	ક્રોસાવે વાહન	વજા		તવાસ કરનાર ધરોહારી નું નામ	કેસનો નિકાલ
										તો	કુલ		
૧	૨૬૧૩ ઇ.પી.કો.ક ૨૭૯૩૩ ઇ. એમવી એ	૨૪/૧/૧૩ ૬.૮/૩૦	૨૪/૧/૧૩ ૬.૧૩/૧૫	ઇન્દોરા સર્કલ પાસે રોડ ઉપર	સુનોલભાઇ પ્રતાપભાઇ ડોડીયા ઉ.વ.૨૪ રહ. હાલ ઢોલરીવાન મર.ઇ રાજકોટ	નેમીલભાઇ મનહરલાલ શાહ રહે. બેબી લેન્ડ હોસ્ટેલ પાસે ઓમન ટાવર ફ્લેટ નં.૪૦૧ કાલાવાડ રોડ રાજકોટ તા.૨૬/૧/૧૩ ૬.૧૬/૦૦ અટક કરેલ	૫૦	સેન્ટો કાર..	ડીસ્ક વર મો. સા.ન. --	-	૨૪	પો.હ.કો. ડોલુભાઇ બી. બાબરીયા	યા.નં. ૪૪૧૩ ૭૨૧ ૩
૨	૩૨૮૧૩ ઇ.પી.કો. -૨૭૯ ૩૦૪અ વિ.	૨૮/૧૧/૧૩ ક. ૨૪/૦૦	૨૮/૧/૧૩ ના ક. ૧૩/૪૫	ઇન્દોરા સર્કલ પાસે, ધુની રોડ, રાજકોટ ધાણા થી	જીવનભાઇ ઇન્દોરા ભાઇ પરિવાર, જાતે : નેપાળી, ઉ.વ. ૩૫, પંથો :	મરનાર પોતે ભરતભાઇ સર્જનભાઇ પરિવાર, જાતે : નેપાળી, ઉ.વ. ૩૩, પંથો :	૩૩	મો.સા. સ્વીપ			૩૩	જે.કે.પટેલ પો.સ.ઇ. ગાંધીઆમ પો.સ્ટે.	અબેટ ૬ ૧૧૧/૧ ૩ ૨૧/૧૨ ૧૩



				દક્ષિણ કી.મી. ૧ ફુટ મહીલા કો. પો. ચોકી	વંચમન, રહે. મુળ- જમુનાબ જાર, તા. રાકમજી, સુરખેત(ને પાળ) હાલ : નારૈશ્વર જૈન દેરાસર પાસે, ઇશરીયા એ.પો.માં જામનગર રોડ, રાજકોટ	મજુરી, રહે. મુળ કાફલ કોટ, વોર્ડ નં. ૮, જી. સુરખેત (નેપાળ) હાલ : નાણાવટી ચોક, પટેલ ફનીચર ઉપર ૧૫૦ ફુટ ચીંગ રોડ, રાજકોટ							
૩	૩૪૫૧૩ ઇ.પી.કો. ક.૨૭૯, ૪૨૭, અમ.વે. એકટ ૧૩૪,૧૭ ૭,૧૮૪	૧૮/૧૨/ ૧૩ ક.૧૯/૧ ૫	૧૮/૧ ૨૧૩ ક.૨૦/ ૪૫	કોટેયા ચોક થી યુની.રી ડાટરફ જતા રોડ પર	રાયેશ્યામ શ્રીપતભાઇ નિશાહ ઉ.વ.૪૩ રહે. અમીન માર્ગ રોડ નવીનનગર મે.રોડ આનંદ મકાન સામે રાજકોટ	નરેશ પરસોતમદા સ ભાવાણી રહે. પુનીતનગર- ૨ શ્રી રાંદલ ફૂપા બજારગવાડી -૧૩ કોનેર રાજકોટ ૯/૧/૧૪ ક.૧૨/૦૦ વાગ્ધે અટક	૫૬	કાર જી.જે. ૩સી.એ ૭૨૩૧	કાર જી.જે. ૩ઇ આર ૨૮૩૧		૪૩		ચા.નં. ૯/૧૪ ૧૪/૧/૧ ૪
૪	૧૧૦૧૪ ઇ.પી.કો. -૨૭૯ ૩૩૭ વિ.	૧૨/૪/૧ ૪ ક.૮/૩ ૦	૧૨/૪/ ૧૪ ક.૧૧/ ૫૦	થાણા થી દક્ષીણે આશરે ૧ કિ.મી. ફુટ ૧૫૦ ફુટ	હસમુખભા ઇ ભવાનીદા સ ફુપરજીયા ભાવાજી ઉ.વ. ૪૫ રહે. ઘટેશ્વર	વાળાને ૨૪/૨૦/૦૦ વાગ્ધે અટક કરેલ છે.	૪૫ ૩૦	કાર નં. જી.જે.- ૩- સી.આ ૨ ૪૧૩૨	રોક્ષા નં.જી. જે. ૧ એકસ સ ૫૬૩		૪૫ ૩૦		૧૩૭/૧ ૪ ૧૦/૭/૧ ૪

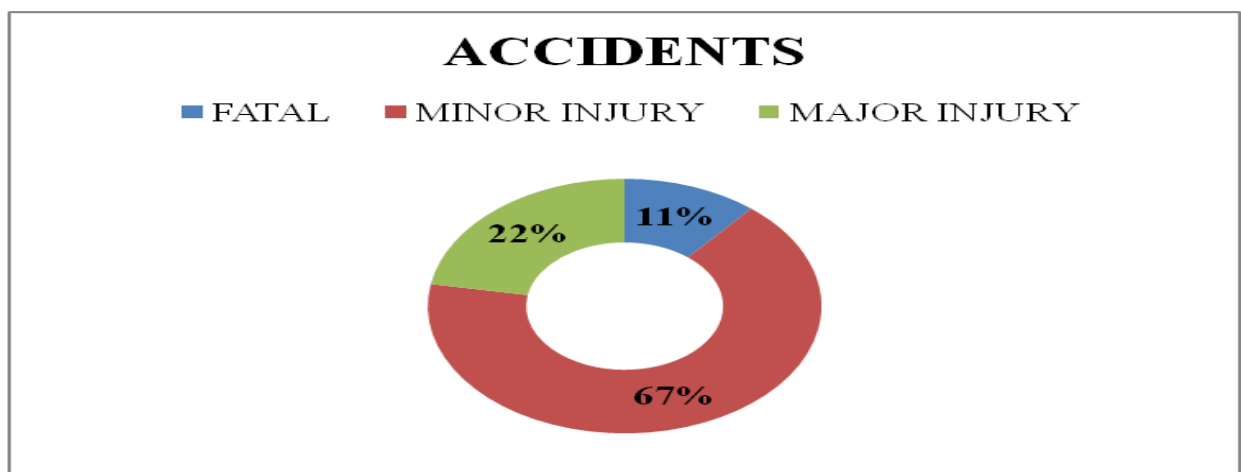
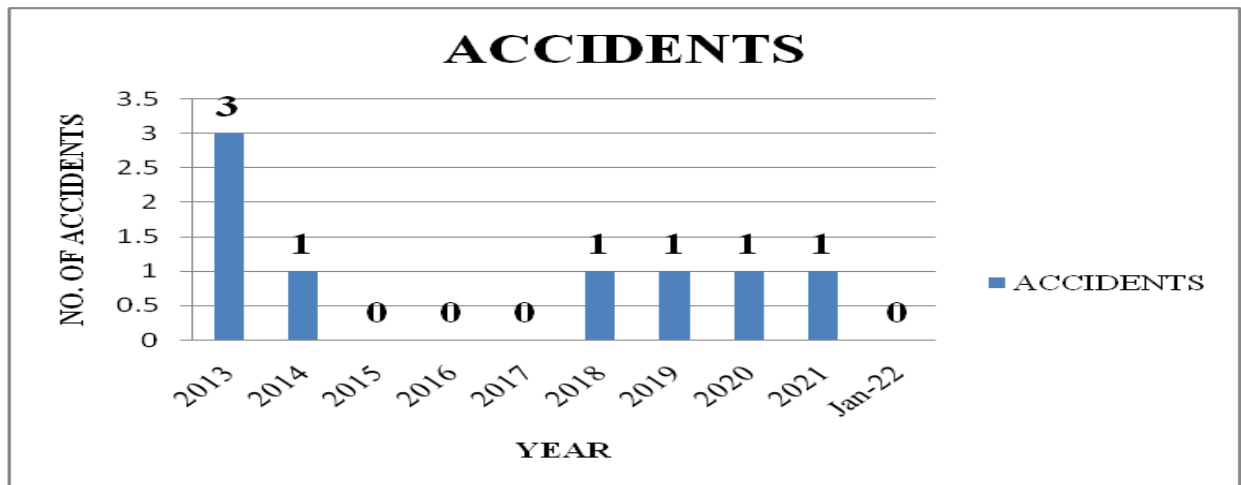
				રાજ રોડ ઇંદોરા સર્કલ પાસે હોલની સામે રોડ પર રાજકોટ .	સ્વ વારીયા કવા.નં.૪૯ ૪ ચીચરીયા પોરનો દરગાહ પાછળ જામનગર રોડ રાજકોટ				૭				
૫	૨૫/૧૫ ઇ.પી.કો. -૨૭૯ ૩૩૮ વિ.	૩/૨/૧ ૫ ક.૭/૧ ૫	૩/૨/૧ ૫ ક.૨૧/ ૧૫	થાણા થી દક્ષિણે ૧ કીમી કુર ઇન્દોરા સર્કલ નજીક ઓવર સિજ ના પિલોર પાસે મ.પો. ચોકી બીટ રાજકોટ	પિયુષભાઇ ઇનશ્વામ ભાઇ મુંગરા જાતે પટેલ ઉવ-૨૧ પંથો. અસ્થાસ રહે. અમી સોસાબ્લો ક નં-૩૭ યુનિ રોડ રાજકોટ	વાળાને પાટ/૧૫ ક.૧૪/૪૫ વાગ્ચે અટક	૨૧	બજાજ સુપર સ્કુટર. ૧૧૨૧૮	હોન્ડા સ્પેલે ન્ડર પ્રો . ૩૮૩ ૯		૨૧		યા.નં- ૪૩/૧૫ ૨૩/૧ ૫
૬	૨૪/૧૮ ઇ.પી.કો. -૨૭૯ ૩૩૭ વિ.	૬/૧/૧૮ ક. ૧૧/૧૫ થી ૧૧/૩૦	૨/૨/૧ ૮ ક.૧૩/ ૦૦	કાટેયા ચોક થી યુની.રો ડ તરફ જતા રોડ પર	પ્રીયલબેન ડો/બો રાજેશભાઇ મનસુખલા લ જોબનપુત્રા ઉ.વ.૧૯ રહે નેમીનાથ સોસાયટી	આવડા રણમલભાઇ કારાબદરા ઉ.વ-૨૭. સાંપવીગમ તા. કલ્યાણપુર જી દેવજીમી	૧૯	ઇન્ડો કાકર નંબર . ૩. ૩૧૩૬	એ કટી વા મો. સા. નંબર ૩. ૩૦૦૬		૧૯	આર.એ ન.પટેલ. ૧૮/૪/૧ ૮	

					બ્લોક નંબર ૭૮ ગાંધીગ્રામ રૈયારોડ રાજકોટ	દવારકા							
૭	ગાંધીગ્રામ પો.સ્ટે. ગુ.ર.નં. ૭૭૧૯ ઇ.પી.કો. ક. ૨૭૯૩૩ ૭૩૩૮	૪/૯/૧૬ ક. ૧૨/૪૫	૪/૯/૧૬ ક. ૨૦/૧૫	ઇન્દરા સર્કલ પાસે રોડ ઈપર	મોહીબન વાઓ સ્વજીભાઇ મકવાણા ઈ.વ. ૫૫ રહે. મહારેવ પાર્ક બ્લોક નં. ૧૩ બેકબોન રેસીડેન્સી પાસે માયાપર ચોકડી મોરબી બાયપાસ રોડ રાજકોટ	કોસ્મીક સુલ ની બસ નં. જી જે ૦૩ એ.ટી.૬૪૫ ૩ નો ચાલક જયદીપભાઇ જયંતીભાઇ સાપરીયા ઈ.વ. ૨૭ રહે. અંભાળા ગામ તા.પડવરી જી. રાજકોટ મો.નં. ૮૧૬૦૪૩૧૦ ૧૩ વાળાને ત.ા ૫/૯/૧૬ ક. ૯/૫૦ અ.ટ.ક કરેલ	૫૫	કોસ્મીક સુલ ની બસ નં. જી જે ૦૩ એ.ટી. ૬૪૫૩ નો	ચાલો ને	૫૫	અ.એસ. આઇ. જે.એસ. કુંભલ	યા.નં. ૧૦૦/૧૬ ૧૦/૧૧/૧૯	
૮	ગાંધીગ્રામ પો.સ્ટે. ૭૬૧૨૦ ૨૦ ઇ.પી.કો. ક.	૩૧/૦૮/૨૦૨૦ ના કલાક ૦૯/૦૦ વાગ્યે	૦૮/૦૯/૨૦ ના કલાક ૦૦/૩૦	ઇન્દરા સર્કલ પાસે રોડ ઈપર રાજકોટ શહેર	કૃષ્ણમોહન જવાહરલાલ યાદવ જાત.આ હીર ઈ.વ. ૫૦ પંધોસેન્સ	ચૌરાગભાઇ રમેશભાઇ પેઢબીયા ઈ.વ. ૨૫ રહે. મનહરપુર ૧ માયાપર ની સામે	૫૦	એક ફોર વ્હીલ કેટસુ ન કંમ્પનીની જેના		૫૦	રાકુલ ભાઇ આર. વ્યાસ	યા.નં. ૧૪૩૨/૨૦૨૦ ૨૧૧/૨૦૨૦	

૨૭૯૩૩ ૭ એમ.વી. એક. ૧૭૭૧૮ ૪			અક્ષાંશ - ૨૨.૩૩ ૧૪૯૨ રેખાંશ- ૭૦.૭૬ ૬૦૬૭	મેન લાલ રહે. શેઠનગર શેરી નં.૧૧ બ્લોક નં.૭૩ જામનગર રોડ રાજકોટ શહેર મુળ રહે. ગામ તેપરી પોસ્ટ તેપ રી તા.પીયર જી.મુજફ્ફ રપુર રાજય બી હાર મો.નં.૮૫૧ ૧૨૨૮.૭૦૩.	જામનગર રોડ રાજકોટ મો.નં.૭૫૬ ૭૭૬૭૯૫૭ વાળા ને તા. ૧૩/૯/૨૦૨૦ ના ક. ૨૨૦૦ અટક કરેલ		રજી. નં.જી. જે.૦૩. કે.સી. ૬૫૧૭ નો ચાલક					
૯ ગાંધીગ્રા મ પો.સ્ટે નુ.ર.નં. એ ૧૧૨૦૮૦ ૩૫૨૧ ૦૫૬૮ આઇપી સી કલમ. ૨૭૯૩૩ ૭૩૩૮ એમ.વી. એક કલમ	તા.રપ /૦૨/૨૦ ૨૧ નાં ક.૧૭/ ૩૦	તા.ર /૫/૦૨/ ૨૦૨૧ ના ક.૧૭/ ૩૦	જામનગર ૨ રોડ દેવેશ્વર પાર્કની સામ કાઠવે રોડ ઉપર બજાર વાડી ચોકી બીટ ગાંધીગ્રા મ પો.સ્ટે.	વિશાખન ડી.બી વિજયભાઇ પીઠવા જાતલુહાર ઉ.વ.૧૯ ધંધો અભ્યા સ રહે.આસો પાલવ રેસીડેન્ટ ડી.વિગ.	અંક ફોરવ્હીલ ગાડી જેના રજી.નં. જી.જે.૧૦.બી જી.૫૧૬૯ નો ચાલક		ફોર વ્હીલ ગાડી જેના રજી.નં. જી.જે. ૧૦.બી. જી.૫૧ ૬૯ નો ચાલક	એ ક્ટી વા મો. સા. જેના રજી. નં.જે. જી.૦ ૩.બી ક્યુ.૩ વ્યજ		પો.હંડ. કોન્સ. રાહુલભા ઇ આર.વ્યા સ	યા.નં. ૧૦૦૧/ ૨૧ ૨૯/૪/ ૨૧ ...	

9.889.28			219912 8122. 2481181 - 22.33 6383 204181. 80.894 22264.										

COLOUR	ACCIDENT TYPE
2	FATAL ACCIDENT
1,3,4,6,8,9	MINOR INJURY
5,7	MAJOR INJURY



## **4.5SUMMURY**

In this chapter data analysis is presented in terms of pie chart and table for the classified traffic volume count data analysis and spot speed data analysis. This chapter is most important part of the research because the evaluations of traffic safety based on this data analysis.

## CHAPTER 5 DATA ANALYSIS AND RESULTS

### 5.1 GENERAL

Data analysis is important part of the thesis to accomplish the objective with proper effectiveness. For evaluation of traffic safety using time to collision required length of vehicle to get the accurate outcome. Data analysis portion is giving the idea about the traffic pattern, speed, vehicle headway etc. at different two stretches. After data collection and data analysis, to find out the value of time to collision for all the vehicle like, two wheelers, three wheelers, rickshaw etc.

Table 5.1 vehicle dimensions

Vehicle Type	Length (m)	Width (m)	Area (m <sup>2</sup> )
Standard Car (CS)	3.72	1.44	5.36
Big Car (CB)	4.58	1.77	8.11
Light Commercial Vehicles (LCV)	4.30	1.56	6.71
High Commercial Vehicles (HCV)	6.70	2.30	15.41
Multi Axle Vehicles (MAV)	11.50	2.42	27.83
Two-Wheeler (TW)	1.97	0.74	1.46
Auto (3W)	3.20	1.30	4.16
Bus (B)	10.60	2.40	25.44

## 5.2 TIME TO COLLISION DATA

MIDDEL PART - (TIME - 8:00 TO 9:00 AM)

( DATE - 26/01/2022 )WEDNESDAY

MIN	car/jeep/van sec	two wheeler sec	rickshaw sec
1	8.01	4.04	6.42
2	8.51	3.99	6.68
3	6.62	5.34	5.23
4	21.31	1.48	15.98
5	10.77	3.07	8.65
6	10.91	3.03	8.75
7	5.78	6.28	4.49
8	8	4.29	6.4
9	8.72	3.89	7
10	11.36	2.89	9.11
11	6.48	5.48	5.1
12	18.07	1.76	13.91
13	9.74	3.43	7.83
14	18.06	1.76	13.9
15	11.36	2.89	9.11
16	5.73	6.34	4.45
17	18.38	1.73	14.11
18	10.91	3.03	8.75
19	8.7	3.9	6.98
20	10.91	3.03	8.75
21	9.53	3.52	7.66
22	6.17	5.8	4.84
23	10.83	3.05	8.69
24	6.01	5.99	4.7
25	8.67	3.91	6.96
26	12.88	2.53	10.25
27	11.36	2.89	9.11
28	6.37	5.59	5.01
29	6.15	5.83	4.82
30	7.77	4.43	6.21



31	5.82	6.22	4.53	
32	10.91	3.03	8.75	
33	4.48	8.62	3.33	
34	7.52	4.6	6	
35	10.42	3.19	8.37	
36	6.37	5.59	5.01	
37	5.82	6.22	4.53	
38	7.52	4.6	6	
39	6.26	5.7	4.92	
40	10.83	3.05	8.69	
41	7	5	5.55	
42	11.28	2.92	9.04	
43	6.42	5.53	5.06	
44	3.85	10.51	2.75	
45	7.59	4.55	6.06	
46	4.15	9.52	3.02	
47	12.16	2.69	9.71	
48	5.22	7.1	4	
49	20.9	1.51	15.73	
50	6.88	5.11	5.45	
51	3.83	10.61	2.73	
52	6.21	5.76	4.87	
53	7.52	4.6	6	
54	7.56	4.58	6.03	
55	8	4.29	6.4	
56	12.16	2.69	9.71	
57	6.76	5.21	5.35	
58	5.11	7.3	3.89	
59	10.83	3.05	8.69	
60	7.32	4.75	5.83	
<b>TOTAL</b>	<b>540.95</b>	<b>273.38</b>	<b>426.12</b>	<b>1240.5</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 26/01/2022 )WEDNESDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	1.21	2.6	6.35
2	0.67	1.87	5.67
3	1.56	3.56	3.9
4	0.48	2.67	4.68
5	2.56	1.78	4.78
6	1.9	18.75	1.65
7	3.78	1.89	3.68
8	4.35	7.41	4.41
9	2.36	13.88	2.25
10	2.41	13.15	2.24
11	1.25	-1.14	0.75
12	1.96	11.04	1.6
13	2.54	7.79	2.48
14	3	6.62	3.56
15	2.61	7.86	2.42
16	3.94	0.2	4.05
17	1.81	10.92	1.82
18	7.28	2.54	7.77
19	5.95	3.44	6.52
20	7.4	2.53	8.68
21	6.4	3.42	7.49
22	3.56	0.22	2.49
23	6.56	2.89	8.38
24	3.59	0.8	3.71
25	5.69	3.34	6.45
26	8.35	2.33	2.82
27	7.37	1.42	2.34
28	4.36	4.62	4.76
29	3.71	0.8	1.81
30	5.67	3.94	5.83

31	3.55	5.16	4.15	
32	7.58	2.79	2.61	
33	3.08	-0.27	3.21	
34	5.57	4.1	5.44	
35	6.7	3.61	6.62	
36	3.7	5.15	4.41	
37	3.96	0.46	1.79	
38	4.71	4.44	5.62	
39	4.49	-0.46	3.05	
40	6.76	2.89	8.11	
41	4.88	4.7	5.48	
42	7.42	2.64	8.5	
43	4.7	4.96	4.76	
44	2.39	0.23	1.88	
45	5.46	4.06	5.77	
46	2.94	0.23	4.4	
47	7.86	3.78	6.08	
48	3.82	1.31	1.93	
49	1.79	11.43	1.63	
50	4.93	4.42	5.06	
51	2.66	2.57	7.99	
52	4.29	-0.46	2.88	
53	4.36	4.35	5.49	
54	5.37	4.17	5.49	
55	5.47	3.87	5.63	
56	8.14	3.48	6.39	
57	4.76	4.49	4.61	
58	3.06	0.65	3.91	
59	7.2	2.99	7.94	
60	4.75	4.12	5.66	
total	313.2	291.66	271.85	8288.1

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)**

**( DATE - 26/01/2022 )WEDNESDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	6.46	4.47	5.57
2	15.78	2.67	3.72
3	2.9	1.78	2.83
4	13	3.54	1.67
5	8.14	3.73	4.94
6	2.9	3.56	4.51
7	4.92	2.78	3.92
8	2.69	2.4	3.61
9	2.77	0.98	3
10	2.47	1.86	3.55
11	5.42	2.21	4.33
12	12.66	1.88	3.56
13	2.77	1.16	2.76
14	11.71	1.13	2.8
15	3.24	0.18	2.01
16	12.56	1.75	3.68
17	11.85	2.6	4.72
18	2.56	1.86	3.38
19	13.65	4.77	5.79
20	2.9	1.34	4.57
21	12.65	3.66	5.2
22	2.75	3.62	4.67
23	3.89	0.91	2.42
24	5.09	2.02	3.71
25	15.74	4.85	5.89
26	2.62	1.39	2.73
27	2.67	-0.3	2.63
28	5.35	2.49	3.71
29	3.21	0.19	1.44
30	2.34	0.88	1.61

31	4.96	1.61	2.85	
32	15.26	3.07	3.52	
33	3.95	0.54	1.9	
34	13.67	3.88	5.02	
35	2.72	1	2.43	
36	5.35	2.33	3.16	
37	4.96	1.74	2.47	
38	2.72	0.7	1.53	
39	10.59	2.82	3.29	
40	3.24	0.02	1.16	
41	5.78	2.66	3.21	
42	2.7	1.96	1.94	
43	12.5	2.84	3.32	
44	3.45	1.39	1.2	
45	13.58	2.95	3.99	
46	14.67	4.01	4.2	
47	8.91	6	6.43	
48	17.56	2.62	2.94	
49	14.4	1.34	1.96	
50	5.7	2.53	2.72	
51	3.43	2.58	2.63	
52	5.24	2.18	2.54	
53	18.38	2.83	2.97	
54	2.32	-0.46	-0.84	
55	2.85	2.37	2.6	
56	8.91	6.04	5.62	
57	13.86	4.16	4.12	
58	4.43	1.61	1.8	
59	16.49	3.11	2.12	
60	3.9	1.06	0.91	
<b>TOTAL</b>	<b>444.25</b>	<b>189.88</b>	<b>249.81</b>	<b>4603.4</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 26/01/2022 )WEDNESDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	5.7	5.97	5.93
2	6.17	5.81	5.69
3	3.79	2.78	3.78
4	5.42	6.81	6.64
5	5.91	6.13	5.99
6	8.43	4.04	3.99
7	6.79	5.19	5.1
8	8.75	3.88	3.82
9	8.62	3.94	3.89
10	9.15	3.69	3.64
11	6.58	5.39	5.28
12	4.89	2.78	2.76
13	8.62	3.94	3.89
14	5.5	6.67	6.52
15	8	4.29	4.23
16	6.8	5.18	5.08
17	5.49	6.69	6.53
18	5.67	6.44	6.29
19	4.37	8.93	8.65
20	8.43	4.04	3.99
21	6.04	5.97	5.84
22	8.65	3.93	3.87
23	5.35	6.91	6.74
24	6.71	5.26	5.16
25	9.8	3.41	3.37
26	8.88	3.81	3.76
27	4.76	3.21	7.77
28	6.61	5.36	5.26
29	5.37	6.88	6.71
30	9.43	3.56	3.52

31	6.77	5.21	5.11	
32	4.27	9.2	8.9	
33	7.35	4.73	4.65	
34	6.34	5.63	5.51	
35	8.7	3.9	3.85	
36	6.61	5.36	5.26	
37	6.77	5.21	5.11	
38	8.7	3.9	3.85	
39	6.64	5.33	5.23	
40	5.89	6.15	6.01	
41	6.45	5.51	5.4	
42	5.79	6.28	6.13	
43	6.59	5.37	5.27	
44	7.77	4.44	4.37	
45	6.33	5.64	5.53	
46	7.56	4.58	4.51	
47	5.79	6.27	6.13	
48	6.99	5.01	4.92	
49	5.42	6.8	6.63	
50	6.48	5.48	5.38	
51	7.79	4.42	4.35	
52	6.65	5.32	5.22	
53	5.37	6.88	6.71	
54	9.46	3.55	3.5	
55	8.5	4.01	3.95	
56	5.79	6.27	6.13	
57	4.68	8.17	7.94	
58	7.04	4.97	4.88	
59	8.36	4.08	4.02	
60	4.89	2.65	7.52	
<b>TOTAL</b>	<b>406.62</b>	<b>311.41</b>	<b>315.71</b>	<b>2686.7</b>

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)**

**( DATE - 27/01/2022 )THURSDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	7.77	2.3	4.53
2	8.43	4.04	6.61
3	5.7	3.76	3.76
4	7.08	4.94	5.52
5	3.19	3.6	7.32
6	8.46	3.95	4.76
7	9.5	3.48	7.53
8	7.34	4.62	7.54
9	4.75	7.81	3.65
10	6.45	4.03	3.33
11	9.12	2.51	6.56
12	3.4	3.18	2.57
13	5.67	5.6	3.4
14	7.05	2.83	4.81
15	7.27	3.03	5.08
16	9.27	2.07	6.14
17	6.84	4.13	4.31
18	8.01	2.81	1.93
19	2.27	1.18	2.21
20	8.19	3.17	3.08
21	7.55	2.58	6.66
22	7.08	3.32	2.19
23	2.95	1.54	3.2
24	8.76	2.16	6.54
25	6.97	3.96	4.55
26	6.07	4.16	3.02
27	6.53	2.5	3.44
28	8.59	2.29	8.23
29	8.67	2.48	5.39
30	5.72	4.41	7.46



31	8.63	1.81	6.51	
32	7.31	2.92	6.15	
33	7.8	2.87	5.88	
34	6.22	2.82	4.84	
35	6.24	2.76	6.12	
36	8.35	2.74	6.46	
37	8.3	1.94	5.83	
38	7.98	1.87	9.28	
39	8.4	2.94	5.3	
40	5.67	1.41	8.45	
41	7.22	2.89	5.93	
42	3.96	1.15	3.1	
43	7.75	2.5	6.53	
44	5.33	2.22	6.77	
45	7.14	0.85	2.07	
46	3.63	5.83	3.35	
47	6.46	2.73	5.49	
48	6.48	2.73	4.96	
49	5.18	5.82	3.04	
50	6.79	2.75	6.16	
51	5.92	3.52	2.64	
52	5.24	3.53	4.68	
53	2.7	8.53	2.14	
54	5.62	3.71	4.59	
55	2.81	7.08	1.36	
56	5.99	2.8	5.1	
57	5.82	2.66	6.38	
58	3.52	6.14	2.53	
59	3.56	5.35	1.97	
60	3.1	2.12	7.32	
<b>TOTAL</b>	<b>326.32</b>	<b>162.89</b>	<b>245.02</b>	<b>1730.8</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 27/01/2022 ) THURSDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	3.46	2.41	2.99
2	5.56	4.56	5.06
3	3.12	2.12	2.62
4	6.24	5.24	5.66
5	1.15	0.15	0.58
6	4.26	3.26	3.67
7	5.12	4.12	4.54
8	4.13	3.01	3.63
9	4.18	1.02	3.63
10	3.98	1.98	3.4
11	5.26	3.35	4.7
12	2.19	0.19	1.5
13	4.18	1.67	3.46
14	6.15	3.84	5.45
15	4.45	1.73	3.63
16	5.11	3.12	4.26
17	6.16	4.56	5.22
18	3.18	1.03	2.33
19	2.78	0.54	1.8
20	4.26	2.6	3.18
21	5.67	2.81	4.7
22	4.17	2.16	2.98
23	2.16	0.16	0.97
24	5.17	3.06	3.96
25	6.01	4.23	4.66
26	4.08	2.07	2.92
27	3.15	1.03	1.69
28	5.24	3.41	4.13
29	2.56	0.66	1.01
30	3.88	1.77	2.45

31	5.13	3.2	3.87	
32	3.55	1.62	2.03	
33	4.78	2.29	3.02	
34	6.1	3.85	4.82	
35	4.15	2.33	2.48	
36	5.24	2.9	3.61	
37	5.13	2.9	3.33	
38	4.15	2.6	2.88	
39	5.22	3.14	3.04	
40	3.55	1.55	1.47	
41	5.35	3.05	3.4	
42	3.14	0.92	1.39	
43	5.25	3.32	3.34	
44	6.2	3.66	3.82	
45	5.44	3.48	4.06	
46	4.67	3.09	2.42	
47	5.88	3.35	3.42	
48	4.99	2.49	2.8	
49	6.23	4.5	3.66	
50	5.33	3.12	3.13	
51	4.55	2.48	2.63	
52	6.22	4.07	3.94	
53	4.99	3.31	2.31	
54	6.33	4.23	4.31	
55	4.23	1.8	1.22	
56	5.88	3	3.34	
57	2.97	1.29	0.85	
58	4.96	3.25	1.82	
59	4.29	2.12	1.73	
60	1.92	-0.05	-0.34	
<b>TOTAL</b>	<b>272.83</b>	<b>154.7</b>	<b>242.88</b>	<b>1208.8</b>

**MIDDEL PART - (TIME - 8:00 TO 9:00 AM)**

**( DATE - 27/01/2022 ) THURSDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	4.57	6.17	6.65
2	5.37	5.48	3.57
3	1.54	3.56	3.56
4	3.21	2.56	9.96
5	4.52	6.29	3.78
6	4.38	6.44	6.88
7	2.4	3.25	6.47
8	3.39	8.2	8.93
9	6.45	4.49	4.71
10	3.04	1.45	3.72
11	6.4	3.31	3.54
12	3.42	7.41	8.35
13	7.41	2.23	2.89
14	2.35	2.13	4.73
15	2.29	3.53	3.29
16	2.31	1.58	6.79
17	7.91	2.44	2.56
18	3.15	1.72	6.9
19	4.17	4.59	6.27
20	5.32	4.33	4.54
21	3.11	6.79	1.13
22	5.97	3.42	4.03
23	2.12	1.09	4.97
24	3.64	5.7	5.64
25	7.5	2.27	2.8
26	2.02	2.98	5.66
27	6.87	2.72	3.31
28	2.62	2.9	6.7
29	2.4	2.48	2.15
30	6.07	3.09	2.01

31	1.91	4.14	6.23	
32	7.13	1.94	3.22	
33	5.62	3.47	3.68	
34	7.3	2.58	2.38	
35	2.73	2.69	7.94	
36	7.45	1.98	2.74	
37	2.3	6.66	2.83	
38	3.01	6.73	6.88	
39	5.94	2.85	3.26	
40	5.22	3.49	4.13	
41	2.56	7.38	5.83	
42	2.28	2.75	6.79	
43	1.76	7.56	3.75	
44	3.34	5.52	6.18	
45	2.44	7.12	3.64	
46	6.3	2.72	2.82	
47	1.85	6.6	7.9	
48	5.11	3.55	4.14	
49	1.22	2.64	3.47	
50	5.77	3.05	2.93	
51	6.73	1.81	2.87	
52	2.3	6.86	7.79	
53	1.91	6.07	7.03	
54	4.75	3.29	3.7	
55	2.91	5.05	6.24	
56	6.69	2.41	2.63	
57	2.11	5.83	6.32	
58	4.36	2.95	4.09	
59	2.38	5.96	6.86	
60	0.9	7.59	4.51	
<b>TOTAL</b>	<b>212.81</b>	<b>201.39</b>	<b>342.59</b>	<b>1300</b>

**MIDDEL PART - (TIME - 6:00 TO 7:00 PM)**

**( DATE - 27/01/2022 )THURSDAY**

<b>MIN</b>	<b>car/jeep/van</b>	<b>two wheeler</b>	<b>rickshaw</b>
1	2.31	2.42	2.17
2	3.21	3.31	3.01
3	3.27	3.37	3.07
4	2.9	3	2.7
5	2.43	2.53	2.23
6	4.36	4.46	4.16
7	2.3	2.4	2.1
8	3.76	3.86	3.56
9	5.16	5.32	5.03
10	1.77	1.56	1.46
11	1.34	1.45	1.07
12	3.32	3.8	3.47
13	8.35	2.21	7.6
14	1.52	0.86	1.3
15	3.25	3.69	3.22
16	1.6	1.49	1.02
17	4.82	5.12	5.44
18	1.5	1.15	1.61
19	2.89	2.9	2.65
20	4	4.14	3.67
21	2.04	2.13	2.37
22	2.63	2.7	2.54
23	1.45	1.45	0.62
24	2.45	2.28	2.44
25	5.13	5.7	4.7
26	1.52	1.49	0.98
27	2.42	2.25	2.37
28	1.89	2.16	1.46
29	3.12	3.35	2.96
30	2.67	2.71	2.64

31	1.39	1.29	0.98	
32	5.38	5.55	4.97	
33	4.52	4.31	4.17	
34	5.52	5.51	5.12	
35	2.36	2.29	1.31	
36	6.27	6.48	6.3	
37	2.61	2.84	1.42	
38	2.65	2.57	2.36	
39	4.54	4.73	4.23	
40	7.06	7.39	6.63	
41	2.13	2.45	2.26	
42	2.25	1.99	1.83	
43	2.48	2.36	2.04	
44	3.13	3.2	2.6	
45	2.36	2.45	1.96	
46	4.88	4.97	4.89	
47	1.5	1.43	0.58	
48	4.59	4.73	4.25	
49	1.16	0.16	0.64	
50	8.14	9.03	8.35	
51	1.2	1.78	1.27	
52	2.55	2.1	1.94	
53	2.2	2.23	2.41	
54	8.24	8.58	7.77	
55	3.06	2.77	2.39	
56	2.37	2.77	2.6	
57	3.41	3.97	3.75	
58	2.93	3.15	1.9	
59	2.58	1.5	2.45	
60	2.47	2.85	2.77	
<b>TOTAL</b>	<b>165.59</b>	<b>162.03</b>	<b>233.72</b>	<b>1104.6</b>

### 5.3 TTC CALCULATION

$$TTC_i = \frac{TH_i \cdot v_i - VL_{i-1}}{v_i - v_{i-1}} \quad \forall v_i > v_{i-1}$$

#### CAR TO BIKE

Where, Total Vehicle headway ( $TH_i$ ) =1.56, car speed ( $v_i$ )= 36.61 kmph, bike speed( $v_{i-1}$ )=27.63, standard vehicle length of car( $VL_{i-1}$ )=3.7m, so as per the formula,

$$TTC_i = (1.56 * 36.61) - 3.7 / (36.61 - 27.63) = 5.95 \text{sec}$$

#### BIKE TO CAR

Where, Total Vehicle headway ( $TH_i$ ) =2.42, bike speed ( $v_i$ )= 28.54 kmph, car speed( $v_{i-1}$ )=22.13, standard vehicle length of car( $VL_{i-1}$ )=3.2m, so as per the formula,

$$TTC_i = (2.42 * 28.54) - 3.2 / (28.54 - 22.13) = 10.28 \text{sec}$$

#### RICKSHAW TO CAR

Where, Total Vehicle headway ( $TH_i$ ) =1.67, rickshaw speed ( $v_i$ )= 38.20 kmph, car speed ( $v_{i-1}$ )=22.18, standard vehicle length of car( $VL_{i-1}$ )=1.87m, so as per the formula,

$$TTC_i = (1.67 * 38.20) - 1.87 / (38.20 - 22.18) = 3.86 \text{sec}$$



### RICKSHAW TO BIKE

Where, Total Vehicle headway ( $TH_i$ ) =2.46, rickshaw speed ( $v_i$ )= 38.20 kmph, bike speed ( $v_{i-1}$ )=27.63, standard vehicle length of car( $VL_{i-1}$ )=3.2m, so as per the formula,

$$TTC_i = (2.46 * 38.20) - 3.2 / (38.20 - 27.63) = 8.59 \text{sec}$$

### CAR TO RICKSHAW

Where, Total Vehicle headway ( $TH_i$ ) =2.49, car speed ( $v_i$ )= 22.18 kmph, rickshaw speed ( $v_{i-1}$ )=38.20, standard vehicle length of car( $VL_{i-1}$ )=3.7m, so as per the formula,

$$TTC_i = (2.49 * 22.18) - 3.7 / (22.18 - 38.20) = -3.22 \text{sec}$$

### BIKE TO RICKSHAW

Where, Total Vehicle headway ( $TH_i$ ) =1.56, bike speed ( $v_i$ )= 34.44 kmph, rickshaw speed ( $v_{i-1}$ )=21.43, standard vehicle length of car( $VL_{i-1}$ )=3.2m, so as per the formula,

$$TTC_i = (1.56 * 34.44) - 3.2 / (34.44 - 21.43) = 3.88 \text{sec}$$

## TIME TO COLLISION (TTC) RESULT

Table 5.2 TTC Results

SR NO	DATE	TIME	CAR TO BIKE	BIKE TO CAR	RICKSHAW TO CAR	RICKSHAW TO BIKE	BIKE TO RICKSHAW	CAR TO RICKSHAW
1	26/1/2021 Wednesday	8-9 Am	5.01	-3.52	3.20	5.02	9.51	3.20
2	26/1 /2021 Wednesday	6-7 Pm	5.79	-3.30	8.79	5.47	10.27	8.87
3	26/1/21 Wednesday	6-7 Pm	8.94	-4.57	10.07	10.19	4.06	3.35
4	26/1/2021 Wednesday	8-9 Am	8.84	6.59	-4.29	6.48	6.6	3.15
5	27/1/2021 Thursday	6-7 pm	6.22	5.61	8.42	-4.43	8.40	7.77
6	27/1/2021 Thursday	6-7 pm	6.37	6.47	4.83	8.56	7.44	-1.80
7	27/1/2021 Thursday	8-9 am	5.75	4.24	8.88	-7.52	7.07	3.34
8	27/1/2021 Thursday	8-9 am	5.95	10.28	3.86	6.28	3.88	-3.22

SR NO	DATE	TIME	AVG. CAR TO CAR	AVG. BIKE TO BIKE	AVG. RICKSHAW TO RICKSHAW	PCU/hr
1	26/1/2021 Wednesday	8-9 Am	9.01	4.55	7.10	1270
2	26/1 /2021 Wednesday	6-7 Pm	6.78	5.19	5.26	1540
3	26/1/2021 Wednesday	6-7 Pm	4.34	3.98	4.53	1467
4	26/1/2021 Wednesday	8-9 Am	7.40	2.30	3.21	1123
5	27/1/2021 Thursday	6-7 pm	4.55	2.36	2.24	986
6	27/1/2021 Thursday	6-7 pm	3.17	3.38	3.22	957
7	27/1/2021 Thursday	8-9 am	5.74	3.44	4.71	947
8	27/1/2021 Thursday	8-9 am	3.01	4.28	4.78	1014

## **5.4SUMMARY**

In this chapter data analysis is presented in terms of table for the classified vehicle headway data analysis and spot speed data analysis. This chapter is most important part of the research because the evaluation of time to collision is based on this data analysis and its results.

## CHAPTER 6 CONCUSSION

### 6.1 CONCLUSION

An assessment approach for urban road traffic safety is proposed in this work to evaluate the incidence of vehicle crashes in various conditions. TTC sample data was collected in two locations on urban road. Following are the important conclusion that is drawn from the present study.

### VEHICLE HEADWAY

#### RESULT:

Table 6.1 vehicle headway summary

SR NO.	DATE	TIME	LOCATION	4W	2W	3W
1	26/01/2022	6:00 TO 7:00 PM	MIDDEL PART	9.02	4.56	7.1
2	26/01/2022	6:00 TO 7:00 PM	MIDDEL PART	7.47	6	7.67
3	26/01/2022	8:00 TO 9:00 AM	MIDDEL PART	7.4	5.27	6.15
4	26/01/2022	8:00 TO 9:00 AM	MIDDEL PART	8.69	4.41	4.33
5	27/01/2022	6:00 TO 7:00 PM	MIDDEL PART	4.55	3.55	4.05
6	27/01/2022	6:00 TO 7:00 PM	MIDDEL PART	5.9	6	5.67
7	27/01/2022	8:00 TO 9:00 AM	MIDDEL PART	12.35	5.31	6.66
8	27/01/2022	8:00 TO 9:00 AM	MIDDEL PART	9.11	6.58	6.85

### PROPOSED DESIRABLE VEHICLE HEADWAY:

Table 6.2 proposed desirable vehicle headway

Reference	Headway (s)	Critical situation
Ohta [33]	Between 1.1 and 1.7	Comfortable
Ohta [33]	>0.6	Danger
Taieb-Maimon and Shinar [34]	0.7	Minimum safe
Evans [35] & Michael et al. [32]	>2.0	Should not be considered safe enough to prevent possible conflicts

From the above table vehicle headways are laid in greater than 2 sec so it should not be considered safe enough to prevent possible conflicts.

### **TIME TO COLLISION (TTC)**

#### **RESULT:**

Table 6.3 TTC result summary

SR NO	DATE	TIME	CAR TO BIKE	BIKE TO CAR	RICKSHAW TO CAR	RICKSHAW TO BIKE	BIKE TO RICKSHAW	CAR TO RICKSHAW
1	26/1/2021 Wednesday	8-9 Am	5.01	-3.52	3.20	5.02	9.51	3.20
2	26/1 /2021 Wednesday	6-7 Pm	5.79	-3.30	8.79	5.47	10.27	8.87
3	26/1/21 Wednesday	6-7 Pm	8.94	-4.57	10.07	10.19	4.06	3.35
4	26/1/2021 Wednesday	8-9 Am	8.84	6.59	-4.29	6.48	6.6	3.15
5	27/1/2021 Thursday	6-7 pm	6.22	5.61	8.42	-4.43	8.40	7.77
6	27/1/2021 Thursday	6-7 pm	6.37	6.47	4.83	8.56	7.44	-1.80
7	27/1/2021 Thursday	8-9 am	5.75	4.24	8.88	-7.52	7.07	3.34
8	27/1/2021 Thursday	8-9 am	5.95	10.28	3.86	6.28	3.88	-3.22

## MINIMUM AND DESIRABLE TTC THRESHOLD VALUE

Table 6.4 TTC threshold values

Reference	Minimum (s)	Desirable (s)	Condition
Van der Horst [16]	1	1.5	Approaches at intersections
Sayed et al. [15]	1.6	2.0	Low level of conflict
	00	0.9	High level of conflict
Hogema and Janssen [17]	-	3.5	Non-supported drivers
Hogema and Janssen [17]	-	2.6	Supported drivers
Vogel [14]	1	2	Approaches at intersections
Meng and Qu [18]	2	4	Urban Road Tunnel (rear end crash)
Huang et al. [7]		1.6	Signalized Intersection
Sayed et al. [1]		3	Signalized Intersection
AASHTO [19]; Farah et al. [20] & Hegeman [21]		3	For 2-lane rural roads

TTC values are greater than 3.5 sec so it is non - supported to drivers. Mostly minimum TTC values are occurring in car to bike and bike to car categories.

### 6.2 FUTURE SCOPE

- Evaluation of time to collision (TTC) value is very important for accident analysis, traffic safety, signal design and coordination, and traffic flow models.

## CHAPTER 7 REFERENCES

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### **7.1 IMPORTANT LINKS**

- <https://opentransportationjournal.com/VOLUME/13/PAGE/65/FULLTEXT/>
- [https://en.wikipedia.org/wiki/Traffic\\_collisions\\_in\\_India](https://en.wikipedia.org/wiki/Traffic_collisions_in_India)
- <https://timesofindia.indiatimes.com/city/rajkot/eight-accidents-occurred-on-city-roads-daily-in-2019/articleshow/74558105.cms>
- <https://timesofindia.indiatimes.com/city/ahmedabad/22-decrease-in-road-accidents-in-gujarat/articleshow/80438467.cms>
- <https://timesofindia.indiatimes.com/city/ahmedabad/50-of-accident-victims-between-18-and-35-yrs-old/articleshow/70220227.cms>
- [https://en.wikipedia.org/wiki/Road\\_collision\\_types](https://en.wikipedia.org/wiki/Road_collision_types)



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College Code : 051

Branch Name : Transportation Engg.(Civil)

Theme of Title : Traffic Engineering

Title of Thesis : Evaluation of Traffic safety By using gaussian mixture model based on time to collision : A case study.

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~ 1 ~





## ANNEXURE 5

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❖ Comments of Dissertation Phase-1 ( ) (Semester 3)

Exam Date : 17 / 12 / 21

Title : Evaluation of Traffic safety By using  
gussian mixtwe model based on time to  
collision: A case study

---

1. Appropriateness of title with proposal. (Yes/ No) Yes

2. Whether the selected theme is appropriate according to the title ? (Yes / No ) Yes

3. Justify rational of proposed research. (Yes/ No) Yes

4. Clarity of objectives. (Yes/ No) Yes

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	<b>Internal Review</b>	
1	Do proper formatting	Formatting is done
2	Add more statistics in results or conclusion	Statistics is added
	<b>Dissertation Phase-1</b>	
1	Prepare methodology of the project	Methodology is added
2	Identify the model as soon as possible	Model is done
	<b>Mid Semester Review</b>	
1	Represent data in proper graph	Graphs are added
2	Insufficient traffic volume data	Traffic volume data are prepared
3	Do formatting as per guidelines.	Formatting is done