

Factor Analysis Of Accident On Parakan Road – Kledung Temanggung Regency (Case Study of Accident Areas in Temanggung Regency)

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ABSTRACT

Jalan Raya Parakan – Kledung is one of the middle cross national roads liaison between Wonosobo Regency and Temanggung Regency. And that behind the problem of the occurrence of accidents is how to know the area which are prone to accidents and what are the factors that cause traffic accidents in Indonesia? Parakan – Kledung road, Temanggung Regency. Analyze and find out characteristics, accident class data, accident time, type of vehicle involved, and the type of accident that occurred. on the Parakan-Kledung road, Temanggung Regency with AEK method and traffic counting. Factors that cause traffic accidents are mostly due to human error or human error, and some are due to factors vehicle and road conditions.

Keywords: *accident, traffic counting, human error*

1. INTRODUCTION

The current state of land transportation has reached an alarming stage One of the most common causes of death is traffic accidents. In period In the past three years (2018-2020), there have been 26 traffic accidents on the road Parakan-Kledung. The human factor is an important factor in accidents. Violations in accidents can be intentional or unintentional. Apart from that, as road users, humans often disobey traffic rules and do not be a traffic accidents.

Temanggung Regency is one of the regencies in Central Java Province. With an area of 870.65km² (87,065Ha). And directly adjacent to the district Semarang to the east, Magelang district to the south, Kendal district to the east north, and Wonosobo regency in the west. Temanggung is on the national road Semarang-Purwokerto and one of the roads is the Parakan-Kledung road in the district Temanggung with winding road conditions and uphill contours resulting in frequent accidents with a variety of contributing factors.

Research purposes

Analyze and find out accident class data, accident time, type of accident the vehicles involved, and the type of accident that occurred. on the Parakan-Kledung road Temanggung Regency with AEK method and traffic counting.

Literature review

Dendy Wicaksono, Rizky Akbar Fachturomaan, Bambang Riyanto [1], Traffic Accident Analysis (Case Study of Ungaran Highway – Bowen) The research methodology includes data collection and data analysis. Obtained from In this study, there were 293 accidents on the Ungaran-Bowen road section.

Adib Wahyu Hidayat, Sri Fortune Laku Utami [2], Analysis of Causes of Traffic Accidents In Semarang City, the data collection used in this research is data secondary comes from the Central Statistics Agency sourced from the IT Division, Information Technology Sub-Section Central Java Police. The factor of the negligence of road users and the road itself needs to be fixed to reduce the accident rate in Central Java.

Dwi Novi Setiawati, Dwi Esti Intari, Achmad Zailani [3], Critical Point Analysis Traffic Accidents on Provincial Roads (Case Study: JL. Raya Legok and JL.Raya Kelapa Dua Kab. Tangerang), Primary data collection includes geometric data completeness of road infrastructure and secondary data including road

accident data the province of Jalan Raya Legok- Jalan Raya Kelapa Dua Kab. Tangerang 2013-2017. point location accident-prone (Blackspot) on Jalan Raya Legok-Jalan Raya Kelapa Dua in segment 5 (PT. Sukses Tunggal Mandiri-PT Jotun).

2. METHODS

Materials Research Method

The material research method in this study uses secondary data and secondary data primary, where secondary data is traffic accident report data on Kledung. road – Parakan Temanggung Regency within three years 2018,2019,2020. Which covers data on accident class, time of the accident, type of vehicle involved, and type of vehicle accident. While primary data includes manual field survey data volume vehicles using a click counter.

Traffic accident

incidents on the highway that involve vehicles and road users resulting in loss of life and material loss. If the accident happened on purpose or has been planned, the incident is included in a criminal act such as robbery and premeditated murder.

Accident Prone Area

Areas that have a high number of traffic accidents, high risk is called accident-prone areas.

Factors Causing Accident

The dominant factor in accidents is the human factor, humans use the road for vehicle drivers and pedestrians. And almost a lot of accidents Most traffic begins with a traffic user violation.

Traffic Accident Classification

There are four classes of accident victims according to Sartono (1993) namely the classification of severe (fatal accident), namely the victim dies with serious injuries or no injuries. Classification is moderate (serious injury accident), the victim is seriously injured, and no deaths. Classification of light (light injury accident), namely the victim only minor injuries. In another classification, there are no human casualties, only material losses.

Accident Rate

Traffic accidents are divided into three types according to Fachrurozy (1996), calculating accidents with a specific year. The total number of accidents occurring in general. The death rate describes the level of severe traffic accidents. A number of involvement involved in an accident using the type of vehicle and the type of driver.

Traffic Accident Victims

Law No.22 [4] mentions Road Traffic and Transportation that:

1. Dead victims are victims who are confirmed to have died as a result of a traffic accident
2. Seriously injured victims are traffic accident victims who suffer from disabilities and must be treated for a long time
3. Minor injuries are victims of traffic accidents who suffer minor injuries or no wounds at all.

Accident Equivalent Number Method (AEK)

The AEK (Accident Equivalent Number) method is a method for calculating the accident rate (Pignataro, 1973), concerning traffic accident-prone areas

as an equivalent weighted number. This method uses the following formula:

$$AEK= 12MD + 3LB + 3LR + 1K$$

With:

MD = Died

LB = Serious Injury

LR = Minor Injury

K = Accident with material loss

Weighting (Weighting)

This calculation refers to the weighting standard of Transport Research

Laboratory (1997), namely:

MD: LB: LR = 3: 2: 1

Where:

MD Died

LB: Seriously injured

LR: Minor Injury

3. RESULTS AND DISCUSSION

Accident Data Analysis

This accident data analysis includes several parameters such as accident class data, the time of the accident, the type of vehicle involved, the type of accident that occurred, and the volume number of vehicles. Traffic accident on the Parakan-Kledung road, Temanggung Regency based on data recap from the Temanggung Police for 2018-2020.

Accident Victim Class Data

Table 1 Class Data for Accident Victims JL. Prakan – Kledung in 2018

Month	MD	LB	LR	Total
	Die	Serious Injury	Minor Injuries	
January	0	0	0	0
February	0	0	0	0
March	1	0	0	1
April	0	0	0	0
May	0	0	0	0
June	1	0	1	2
July	0	0	0	0
August	0	0	0	0
September	1	0	2	3
October	0	0	0	0
November	0	0	1	1
December	0	0	0	0
Amount	3	0	4	7

Source: Temanggung Police |

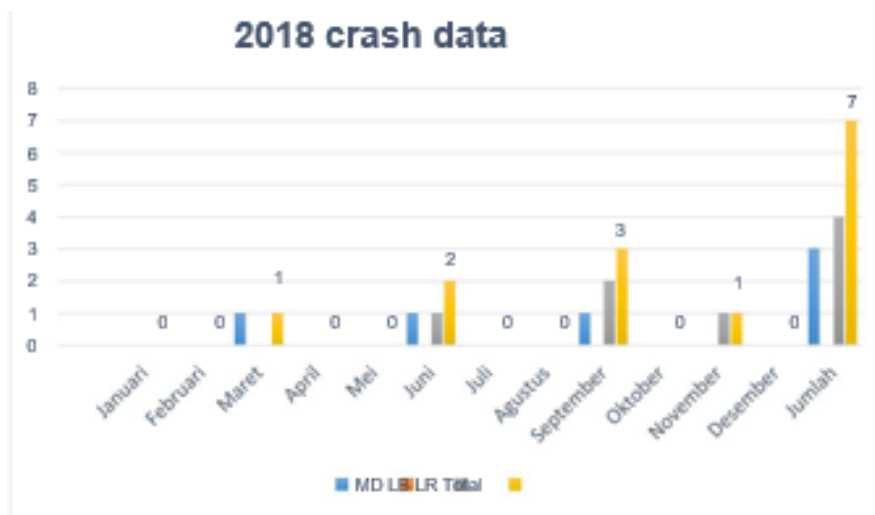


Figure 5.1 Graph of accident victims 2018

From the results above, it can be seen that the number of accident victims in 2018 was 7 people

Table 2 Class Data for Accident Victims JL. Prakan – Kledung in 2019

Month	MD	LB	LR	Total
	Died 0	Serious injury	Minor injuries	
January		0	0	0
February	0	0	2	2
March	0	0	0	0
April	0	0	6	6
May	0	0	1	1
June	0	0	9	9
July	0	0	0	0
August	0	0	7	7
September	0	0	0	0
October	1	0	3	4
November	1	0	22	23
December	0	0	0	0
Amount	2	0	50	52

Source: Temanggung Police

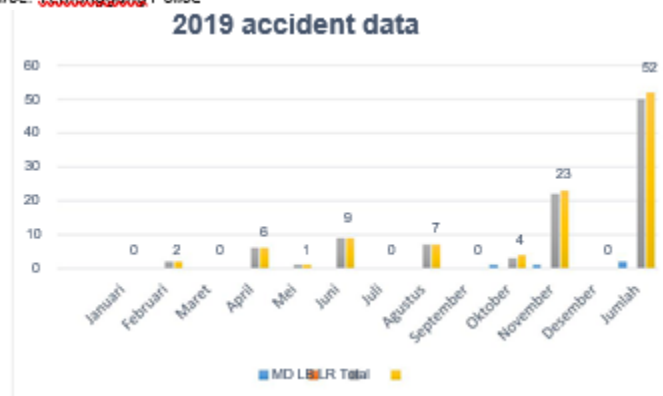


Figure 5.2 Graph of accident victims 2019

From the results above, it can be seen that the number of accident victims in 2019 was 52 person

Table 3 Class Data for Accident Victims JL. Prakan – Kledung in 2020

Month	MD	LB	LR	Total
	Died 0	Severe Injury	Minor injuries	
January		0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	1	1
July	1	0	1	2
August	0	0	2	2
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Amount	1	0	4	5

Source: Temanggung Police

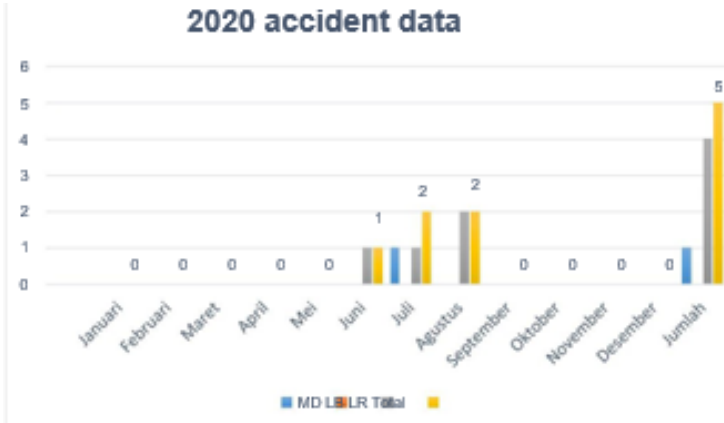


Figure 5.3 Graph of 2020 accident victims

From the results above, it can be seen that the number of accident victims in 2020 is 5 people

Accident Events Based on Time / Hour

Details based on hourly number of traffic accidents on Jalan Parakan – Kleding as following:

Table 4 Accident Time (hours)

Time Accident	YEAR		
	2018	2019	2020
00.00 to 06.00	1	1	0
06.01 S/D 12.00	0	6	2
12.01 to 18.00	4	6	2
18.01 to 00.00	1	2	1
Amount	6	15	5

Source: Temanggung Police

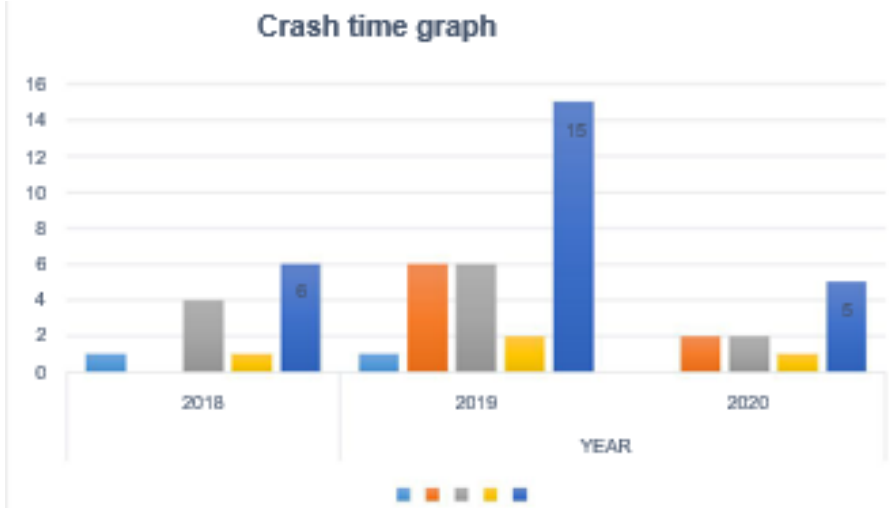


Figure 5.4 Accident time graph

Judging from the table and graph above, the highest accident rate occurred at 06.00 / 12.00 and 12.00/18.00 because a lot of activities are being carried out at that time.

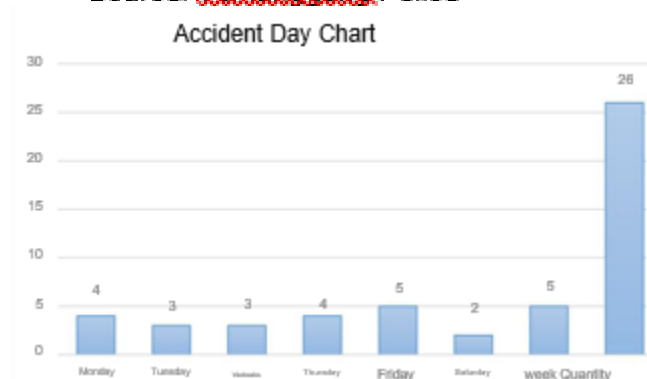
Accident Events by Day

The details of the accident based on the number of days on the Parakan – Kledung road are as follows:

Table 5 Days of Accidents

Day	Amount
Monday	4
Tuesday	3
Wednesday	3
Thursday	4
Friday	5
Saturday	2
week	5
Amount	26

Source: Temanggung Police



Judging from the tables and graphs above, the day of the highest accident occurred on Friday and week with a total of 5 events.

Characteristics of Traffic Accidents by Type of Accident

Details of traffic accidents based on the number of accident positions on Jalan Parakan – Kledung are as follows:

Table 6 Types of traffic accidents

Type of Accident	Number of events
Front-Front	7
Front - Side	4
Front back	0
side - side	2
Accident streak	1
Hit and run	6
Single Accident	6
Amount	28

Source: Temanggung Police

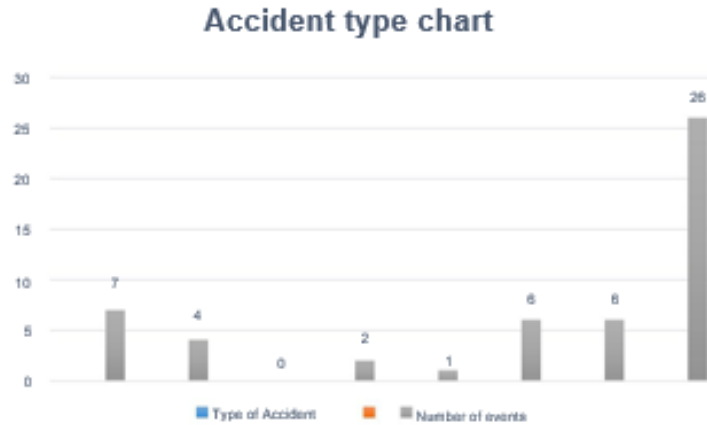


Figure 5.5 Accident-type graph

It can be seen from the results of the table and graph above that the number of types of traffic accidents is the most many occur in the front-front accident position while the number of types of accidents the least are consecutive accidents that occurred on Jalan Parakan – Kledung 2018 - 2020.

Traffic Accidents by Vehicle Type

Details of traffic accidents by type of vehicle involved on Jalan Parakan – Kledung are as follows:

Table 7 Accidents by vehicle type

Transportation type	Year			Total
	2018	2019	2020	
Bus	0	1	0	1
Car	5	12	3	20
Motorcycle	8	14	5	27
Bicycle	0	0	0	0
Pedestrian	0	0	0	0
Amount	13	27	8	48

Source: Temanggung Police

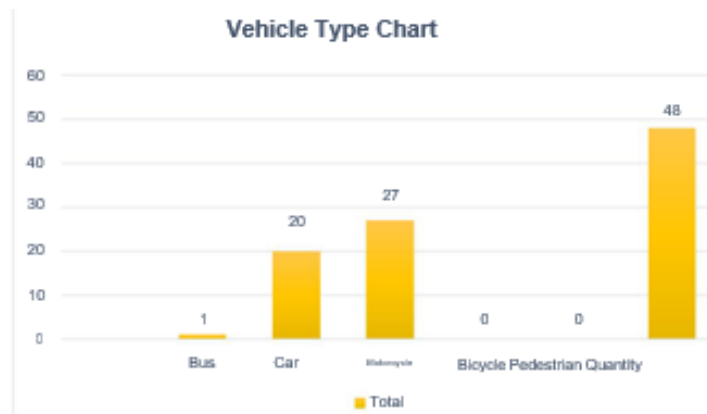


Figure 5.6 Graph of Vehicle Type

It can be seen from the table and graph above that the number of traffic accidents is the most occurred in SPM motorcycles because they became the most widely used means of transportation used by society. The reason why motorcycles are the most common type of vehicle accidents because users often do not order traffic.

Traffic Accident Material Losses

Details of material losses in traffic accidents on Jalan Kledung – Parakan are as follows:

Table 8 Material Losses for Parakan - Kledung Jalan Road

Year	Loss
2018	Rp. 7,000,000
2019	Rp. 78,100,000
2020	Rp. 4,500,000
Amount	Rp. 89,600,000

Source: Temanggung Police

It can be seen from the table above that the number of material losses in the 2018-2020 Parakan road accident – Kledung Besar Rp. 89,600,000

Accident Analysis (Blackspot)

The details of calculating the AEK (Accident Equivalent Number) value are as follows:

Table 9 Table of AEK Value (Accident Equivalent Rate)

Location name	YEAR 2018 - 2020				TOTAL
	MD	LB	LR	K	12MD+3LB+3LR+1K
Parakan Street - Kledung	6	0	58	26	272

Source: Temanggung Police

It can be seen from the table above that the AEK (Accident Equivalent Rate) value on Jalan Kledung-Parakan of 272.

Factors of Accident

Obtained from data analysis carried out by factors of traffic accidents most of it is due to human error or human error. as well as the road factor the winding and vehicle factors cause traffic accidents. It can be seen from the analysis of accident data based on most types of accidents, namely: upfront with that also indicates a lot of negligence committed by motorists, the behavior of drivers who are not careful can result in the occurrence of traffic accidents, motorcycle SPM is the most common type of vehicle many involved in accidents, while the time that traffic accidents often occur is during peak hours people carry out activities.

Traffic Volume Analysis

Traffic volume data collection and research were carried out for 3 days on Jalan Parakan – Kledung and implementation will be held on 20 – 22 November 2021.

Morning Hour Traffic Volume

It can be seen from the table below that the morning hours on Jalan Kledung – Parakan:

Table 10 Traffic Volume at Morning 20 November 2021 Jalan Parakan – Kledung.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
07.00 - 07.15	111	145	67	61	17	14	415
07.15 - 07.30	129	163	72	84	15	19	482
07.30 - 07.45	176	205	85	75	17	22	580
07.45 - 08.00	154	178	82	79	21	24	538
08.00 - 08.15	169	189	76	121	18	16	589
08.15 - 08.30	153	142	91	85	19	21	511
08.30 - 08.45	132	157	65	63	25	18	460
08.45 - 09.00	96	132	68	69	13	20	398
Amount	1120	1311	606	637	146	154	3973
Quantity/Hour	560	655.5	303	318.5	72.5	77	1986,5

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data in the morning hours on the Parakan - Kledung road on November 20, 2021, that the number of vehicles is 3973 units of vehicles with the number/hour 1986,5 vehicles.

Table 11 Morning Traffic Volume 21 November 2021 Parakan – Kledung Road.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
07.00 - 07.15	93	82	74	61	13	15	338
07.15 - 07.30	91	94	78	73	16	14	366
07.30 - 07.45	84	91	85	68	14	12	354
07.45 - 08.00	102	120	91	64	25	18	420
08.00 - 08.15	121	101	89	91	15	16	433
08.15 - 08.30	105	137	83	78	15	19	437
08.30 - 08.45	97	113	103	93	23	18	447
08.45 - 09.00	110	104	92	96	18	21	441
Amount	803	842	695	624	139	133	3236
Quantity/Hour	401.5	421	347.5	312	69.5	66.5	1618

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data in the morning hours on the Parakan - Kledung road on November 21, 2021, that the number of vehicles is 3236 vehicles with a total/hour of 1618 vehicle units.

Table 12 Traffic Volume in the Morning 22 November 2021 on Parakan-Kledung Road

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
07.00 - 07.15	118	129	59	74	14	20	414
07.15 - 07.30	124	117	78	75	13	17	424
07.30 - 07.45	142	134	72	84	18	16	466
07.45 - 08.00	158	136	96	76	15	17	498
08.00 - 08.15	182	198	97	93	19	24	613
08.15 - 08.30	169	171	83	91	22	15	551
08.30 - 08.45	140	169	86	84	18	21	518
08.45 - 09.00	123	159	54	67	20	19	442
Amount	1156	1213	625	644	139	149	3926
Quantity/Hour	578	606.5	312.5	322	69.5	74.5	1963

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data in the morning hours on the Parakan - Kledung road on November 22, 2021, that the number of vehicles is 3926 vehicles with a number/hour of 1963 vehicle units.

Table 13 Average Morning Traffic Volume on Jalan Parakan – Kledung at 07.00- 09.00

Type of Day / Date	Traffic Volume (drive / Hour)			EWP	Traffic Volume (drive / Hour)		
	Parakan Kledung	Kledung Parakan	Total		Parakan Kledung	Kledung Parakan	Total
MC	Saturday, 20 November or 2021	580	655.5	0.25	140	163.875	303.875
	sunday, 21 November	401.5	421		100.375	105.25	205.625
	Monday, 22 November or 2021	578	606.5		144.5	151.625	296.125
LV	Saturday, 20 November or 2021	303	318.5	1	303	318.5	621.5
	Sunday, 21 November	347.5	312		347.5	312	659.5
	Monday, 22 November or 2021	312.5	322		312.5	302	614.5
HV	Saturday, 20 November or 2021	72.5	77	1.2	87	92.4	179.4
	sunday, 21 November	69.5	66.5		83.4	79.8	163.2
	Monday, 22 November or 2021	69.5	74.5		79.8	89.4	169.2
Total	2711	2853.5	5564.5	1598.075	1634.89	3232.965	
Average Per Day	301.2222	317.059	618.2778	177.5639	181.65	359.2139	

From the results of observations of vehicles carried out on average for the morning hours from the direction of Parakan-Kledung is 177.5639 SMP/hour and from Kledung-Parakaan it is 181.65 with an overall average per day of 359,2139 SMP/hour.

Daytime Traffic Volume

Table 14 Daytime Traffic Volume 20 November 2021 Parakan – Kledung Road.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
11.00 - 11.15	91	97	75	62	16	22	363
11.15 - 11.30	96	116	67	68	21	15	383
11.30 - 11.45	96	103	81	72	18	19	389
11.45 - 12.00	88	118	94	97	19	23	439
12.00 - 12.15	116	124	78	81	25	26	450
12.15 - 12.30	125	109	84	95	21	32	466
12.30 - 12.45	111	110	82	116	30	35	484
12.45 - 13.00	105	99	71	87	18	22	402
Total	828	876	632	678	168	194	3376
Quantity/Hour	414	438	316	339	84	97	1688

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data at noon on the Parakan - Kledung 20 November 2021 that the number of vehicles is 3376 vehicles with a number/hour of 1688 units of vehicles.

Table 15 Daytime Traffic Volume 21 November 2021 Parakan – Kledung Road.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
11.00 - 11.15	124	94	92	71	19	15	415
11.15 - 11.30	107	91	84	73	23	15	393
11.30 - 11.45	115	111	87	82	17	18	430
11.45 - 12.00	134	136	110	78	18	13	489
12.00 - 12.15	128	117	95	94	20	19	473
12.15 - 12.30	148	123	93	72	21	16	473
12.30 - 12.45	124	126	87	81	26	22	466
12.45 - 13.00	137	109	98	79	17	17	457
Amount	1017	907	746	630	161	135	3596
Quantity/Hour	508.5	453.5	373	315	80.5	67.5	1798

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data at noon on the Parakan - Kledung 21 November 2021 that the number of vehicles is 3596 vehicles with several vehicles/hour of 1798 units.

Table 16 Afternoon Traffic Volume 22 November 2021 Parakan – Kledung Road.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
11.00 - 11.15	108	111	81	64	21	20	405
11.15 - 11.30	113	123	74	82	20	15	427
11.30 - 11.45	125	109	69	75	16	38	432
11.45 - 12.00	118	137	87	72	19	13	446
12.00 - 12.15	112	124	92	76	14	25	443
12.15 - 12.30	135	115	76	89	23	27	465
12.30 - 12.45	109	143	68	94	19	15	448
12.45 - 13.00	116	124	73	78	22	27	440
Amount	936	986	620	630	154	180	3506
Quantity/Hour	468	493	310	315	77	90	1753

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data at noon on the Parakan - Kledung 22 November 2021 that the number of vehicles is 3506 vehicles with a number/hour 1753 units of vehicles.

Table 17 Average Daytime Traffic Volume on Jalan Parakan – Kledung at 11.00- 13.00

Type of Day	Date	Traffic Volume (drive / Hour)			EMP	Traffic Volume (drive / Hour)		
		Parakan Kledung	Kledung Parakan	Total		Parakan Kledung	Kledung Parakan	Total
MC	Saturday, 20 November 2021	414	438	852	0.25	103.5	109.5	213
	Sunday, 21 November	508.5	463.5	962		127.125	113.375	240.5
	Monday, 22 November 2021	468	493	961		117	123.25	240.25
LV	Saturday, 20 November 2021	316	339	655	1	316	339	655
	Sunday, 21 November	373	315	688		373	315	688
	Monday, 22 November 2021	310	315	625		310	315	625
HV	Saturday, 20 November 2021	84	97	181	1.2	100.8	116.4	217.2
	Sunday, 21 November	80.5	67.5	148		96.6	81	177.6
	Monday, 22 November 2021	77	90	167		92.4	108	200.4
Total		2631	2608	5239		1636.425	1620.525	3256.95
Average / Per Day		292.3333	289.7778	582.1111		181.825	180.0583	361.8833

From the results of vehicle observations carried out on average for daytime hours from the direction of Parakan-Kledung is 181,825 smp/hour and from Kledung-Parakan it is 180,0583 with an overall average per day of 361,8833 smp/hour

Afternoon Traffic Volume

Table 18 Afternoon Traffic Volume 20 November 2021 Jalan Parakan – Kledung.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
16.00 - 16.15	124	116	72	54	18	20	404
16.15 - 16.30	132	128	76	67	17	19	439
16.30 - 16.45	129	125	68	61	23	14	420
16.45 - 17.00	167	136	73	64	19	23	482
17.00 - 17.15	146	149	97	74	21	30	517
17.15 - 17.30	134	162	107	63	28	21	515
17.30 - 17.45	137	141	105	80	24	25	512
17.45 - 18.00	129	136	98	61	22	24	470
Amount	1098	1093	696	524	172	176	3759
Quantity/Hour	549	546.5	348	262	86	88	1879.5

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data in the afternoon on the Parakan - Kledung road on November 20, 2021, the number of vehicles is 3759 units of vehicles with the number/hour of 1879.5 vehicles.

Table 19 Afternoon Traffic Volume 21 November 2021 Parakan – Kledung Road.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
16.00 - 16.15	98	103	88	83	20	16	388
16.15 - 16.30	102	109	86	74	16	19	386
16.30 - 16.45	96	123	78	81	18	17	413
16.45 - 17.00	113	128	64	95	15	22	437
17.00 - 17.15	121	116	70	92	18	21	438
17.15 - 17.30	108	135	83	78	23	20	447
17.30 - 17.45	96	119	91	102	19	19	446
17.45 - 18.00	105	96	74	89	14	24	402
Amount	839	929	594	694	143	158	3357
Quantity/Hour	419.5	464.5	297	347	71.5	79	1678.5

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data in the afternoon on the Parakan - Kledung road 21 November 2021 the number of vehicles is 3357 units of vehicles with the number/hour 1678.5 vehicles.

Table 20 Traffic Volume at Afternoon 22 November 2021 Jalan Parakan – Kledung.

Time	MC		LV		HV		Total Volume Vehicle
	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	Parakan Kledung	Kledung Parakan	
16.00 - 16.15	119	97	75	63	23	19	396
16.15 - 16.30	105	103	96	64	20	28	416
16.30 - 16.45	128	109	71	69	16	24	417
16.45 - 17.00	168	114	69	73	19	17	460
17.00 - 17.15	185	125	86	82	22	18	518
17.15 - 17.30	172	106	73	91	26	26	494
17.30 - 17.45	135	127	95	74	30	23	484
17.45 - 18.00	129	118	85	81	24	10	447
Amount	1141	899	650	597	180	165	3632
Quantity/Hour	570.5	449.5	325	298.5	90	82.5	1816

Information:

MC: Motorcycle

LV: Private Car, Public Transport

HV: Truck, Bus/big vehicle

It can be seen from the traffic volume data in the afternoon on the Parakan - Kledung road Non November 22, 2021, the number of vehicles is 3632 units of vehicles with a total/hour of 1816 vehicle units.

Table 21 Average Afternoon Traffic Volume on Jalan Parakan – Kledung at 16.00- 18.00.

Type of Day	Date	Traffic Volume (drive / Hour)			EMF	Traffic Volume (drive / Hour)		
		Parakan Kledung	Kledung Parakan	Amount		Parakan Kledung	Kledung Parakan	Amount
MC	Saturday, 20 November er 2021	549	548.5	1098.5	0.25	137.25	136.625	273.875
	Sunday, 21 November	419.5	464.5	884		104.875	116.125	221
	Monday, 22 November er 2021	570.5	449.5	1020		142.625	112.375	255
LV	Saturday, 20 November er 2021	348	262	610	1	348	262	610
	Sunday, 21 November	297	347	644		297	347	644
	Monday, 22 November er 2021	325	298.5	623.5		325	298.5	623.5
HV	Saturday, 20 November er 2021	88	88	174	1.2	103.2	105.6	208.8
	Sunday, 21 November	71.5	79	150.5		85.8	94.8	180.6
	Monday, 22 November er 2021	90	82.5	172.5		108	99	207
Total		2758.5	2617.5	5376		1861.75	1572.625	3434.375
Average Per Day		290.8333	597.11			183.5278	174.694	358.1972

From the results of vehicle observations carried out on average for the afternoon hours from the direction of Parakan-Kledung is 183.5278 sSMPhour and from Kledung-Paraakan it is 174,6694 with an overall average of 358,1972 sSMPhour

4. CONCLUSION

Conclusions can be drawn from the discussion based on the analysis of areas prone to past accidents Parakan-Kledung road, Temanggung Regency as follows:

1. Class data of accident victims
 - a. The number of victims of accidents in 2018 is 7 people
 - b. The number of accident victims in 2019 was 52 people
 - c. The number of accident victims in 2020 is 5 people

2. The highest accident time occurred at 06.00/12.00 and a2.00/18.00 because many activities were being carried out at that time.
3. The highest number of traffic accidents occurs in motorcycle SPM because it is the mcommunity's most common means of transportation
The cause of motorcycles is the most common type of vehicle accident because users often do not order traffic.
4. Most types of traffic accidents occur in the front accident position – front while the number of accidents with the least number of accidents is a streak
5. Calculation of the AEK value (Accident Equivalent Number) on the Parakan – Kledung road is 272
6. Calculation of the volume of vehicles based on the type of vehicle during the hours certain or the calculation of the Parakan-Kledung road traffic counting method Temanggung Regency, 2021 data obtained
 - a. 07.00 – 09.00: average number for morning hours from Parakan-Kledung aSarahof 177.5639 sSMPhour and flung-Paraakan is 181.65 with an overall average per day of 359,2139 sSMPhour
 - b. 11.00 – 13.00: the average number of of daylight hours from the direction of Parakan Kledung is 181,825 sSMPhour and from Kledung-Paraakan of 180,0583 with an overall average of 361,8833 sSMPhour
 - c. 16.00 – 18.00: average number for evening hours from Parakan-Kledung aSarahof 183.5278 sSMPhour and the direction of Kledung-Paraakan of 174,6694 with an overall average of 358,1972 sSMPhour

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