Traffic Accident Analysis Model In Traffic Accidents That Have No Witness

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Abstract: The problem of traffic accidents in the absence of witnesses is very crucial because in traffic accidents, in principle, the presence of witnesses is very important in determining the suspect and victim. Therefore, it is important to reconstruct traffic accident analysis (TAA) in every traffic accident. This is the concern of the compilers to examine how the concept of implementing Traffic Accident Analysis in traffic accidents, as well as to examine the Traffic Accident Analysis proof model in traffic accidents that do not have witnesses. The type of research in writing this proposal is normative research, which includes research on legal systematics, research on the level of legal synchronization, research on legal history, and research on comparative law. The results show that the concept of applying Traffic Accident Analysis in traffic accidents uses two main methods, namely: clinical and statistical approaches. The application of Traffic Accident Analysis is very important to do and becomes an alternative when there is no witness in a traffic accident. This is necessary to assist investigators in reconstructing accidents and determining suspects and victims.

Keywords: Traffic Accident Analysis; Traffic; Witness;

How to cite (Chicago Style):
1. **Introduction**

Road Traffic and Transportation have a strategic role in supporting the development and national integration as part of efforts to promote community welfare as mandated by the Constitution. The Republic of Indonesia Year 1945. Road Traffic and Transportation (LLAJ) must develop to realize prosperity, security, and order in road traffic and transportation in the context of supporting economic development and the development of science and technology, regional self-reliance capabilities, and accountability for implementation country.¹

Road traffic law in Indonesia’s positive law is regulated in Law No. 22 of 2009 concerning Road Traffic and Transportation (UU LLAJ). Traffic is the movement of vehicles and people in the Road Traffic Room, namely infrastructure intended for the movement of vehicles, people, and/or goods in the form of roads and supporting facilities. Thus, it can be concluded that the substance of the road traffic law is the law that regulates the movement of people and/or vehicles in the traffic space in the form of roads. Therefore, it becomes natural that the legal scope of road traffic is not only related to the movement itself but also related to the entities that move on the road which is also regulated by the road traffic law itself, namely people and/or vehicles. This is manifested, for example, by arrangements for pedestrians, regulation of competency standardization of people driving vehicles, regulation of technical requirements and roadworthiness of vehicles, as well as arrangements for registration and identification of motorized vehicles.

Traffic violations are included in the scope of criminal law regulated in Law no. 22 of 2009 as a replacement for Law No. 14 of 1992 concerning Road Traffic and Transportation. As regulated in Article 105 of the Traffic Law, every person using the road must: a) Behave in an orderly manner; and/or b) Prevent things that can hinder, or endanger the security and safety of road traffic and transportation, or that can cause road damage.

Accidents that often occur on the road are often interpreted as sudden and hard suffering that befalls a person from the outside. According to Article 1 number 24 of Law Number 22 of 2009 concerning Road Traffic and Transportation and hereinafter referred to as the Road Traffic and Transportation Law, a Traffic accident is an event on the road that is unexpected and unintentional involving a vehicle with or without other road users. resulting in human victims and/or property loss. The legal consequence is legal sanctions that must be applied to the perpetrator, especially if it results in the death of the victim, as formulated in Article 359 paragraph (1) of the Criminal Code which reads: "Anyone due to

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¹ Dewa Arya LanangRaharja, “Penyelenggara Jalan Sebagai Subyek Hukum Tindak Pidana”, Jurnal Magister Hukum Udayana, Vol. 6, No. 1, Mei 2017, hlm. 78-79
negligence causing the death of another person is punishable by a maximum imprisonment of five years or a maximum imprisonment of one year.”

In conducting evidence in a traffic accident, it must be based on the Criminal Procedure Code which is regulated in Criminal Procedure Code (KUHAP) which regulates the evidence needed in the settlement of a criminal case, especially in the matter of proof. The proof is the presentation of legal evidence that is required by law when a criminal case is heard in court.

The definition of proof contained in Article 183 of the Criminal Procedure Code is that a judge may not pass a criminal decision on a person unless there are at least 2 valid pieces of evidence and he is convinced that a criminal act has occurred and the defendant is guilty of committing a crime. From the explanation in the Criminal Procedure Code, the purpose and objective of the evidence are to guarantee the establishment of truth, justice, and legal certainty for a person.

Article 184 of the Criminal Procedure Code mentions the legal evidence according to criminal law, namely: 1) Witness testimony; 2) Expert testimony; 3) Letters; 4) Hints, and 5) The defendant’s statement. From some of this evidence, it can be seen that witness statements are the main evidence in proving criminal cases in addition to other evidence. The testimony of a witness is evidence of what he has witnessed and seen or heard stated in a court hearing. One witness’s testimony is not enough to prove that the defendant is guilty of the criminal act he is accused of. Information about several witnesses who stand alone regarding an event or situation can be used as valid evidence if the witness statements are related to each other in such a way that they can justify the validity of a certain event or condition.

Evidence plays an important role in the trial process. This evidence determines the guilt or innocence of a person who is brought before the court. If the results of the evidence with the evidence determined by law are not sufficient to prove the guilt of the person, they will be released from punishment, on the other hand, if the guilt can be proven, they are declared guilty and sentenced. Therefore, one must be careful, thorough, and mature in assessing and considering evidentiary issues, especially traffic accidents.

From a legal perspective, this effort is realized through criminal law. Criminal law is expected to be able to fulfill the ideals of public order. Law enforcement in

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the field of traffic often experiences problems that are far from the existing normative logic. This is because accidents that occur at a time and in conditions where no one is watching, usually happen on toll roads and at night, making the examination process hampered by witnesses at the crime scene (TKP). One of the problems is when there are no witnesses in a traffic accident. Rapid technological developments make traffic support instruments that can be used as evidence for traffic accident investigations. This is a factor of convenience for investigators to carry out the fact-finding process so that it can be proven in court.6

Determining the suspect becomes a problem in traffic accident cases, such as in traffic accident cases that are investigated by the Religious Police Satlantas. The accident occurred on Thursday, November 1, 2018, at 22:45 WIT at the surau Lubuak, Nagarian, TigoBalai, Kec. thanks kab. Agam, there was an accident between a vega motorcycle rider with police number BM 6519 CN driven by Azwarman and a pedestrian warman. This accident caused the pedestrian to die. After examining the Witness and obtaining information that they did not see the accident directly, they knew after the incident that the victim was taken to the Matur Health Center in an unconscious condition and referred to the Ahmad Mochtar Bukittinggi General Hospital.7

Handling cases of traffic accidents Traffic Police also experience various obstacles, especially on the issue of determining the suspect in the event of a traffic accident that caused the death of a person. Obstacles Faced by the Police in Enforcing Traffic Laws include the absence of witnesses who directly saw the accident incident, the witness only knew after the accident occurred. This situation makes it difficult for investigators to determine the suspect in the accident case. Because if there are no witnesses, the case handling process will be difficult to run.8

The problem of traffic accidents in the absence of witnesses is very crucial because in traffic accidents in principle the presence of witnesses is very important in determining the suspect and the victim.

The increasingly rapid development of technology has had a very large impact on the world community. This development has changed various conventional methods and people's lifestyles to become more modern in all fields, such as social, cultural, economic, military, administration, and other fields. Therefore, it is important to reconstruct traffic accident analysis (TAA) in every traffic accident.

6 Soeparman, Parman, Haji, Kepentingan Korban Tindak Pidana Dilihat Dari Sudut Viktimologi, Varia Peradilan, Majalah Hukum Tahun Ke XXII No. 260 Juli 2007, Hlm. 2
8 Ibid
TAA itself has the following objectives: first, more professional and modern handling and investigation of traffic accidents. Second, shorten the time of crime scene processing. Third, make an analysis based on scientific research on traffic accidents. Fourth, make a traffic accident simulation in the form of a movie. In this regard, it is important to look at the application of TAA in accidents that do not have witnesses, this is important because the witnesses themselves in a criminal position are one of the most important pieces of evidence, but in the absence of witnesses in traffic accidents, TAA is used as a police support tool in to reconstruct the case and or view the chronology of events.

This is the concern of the compilers to examine how the concept of implementing Traffic Accident Analysis in traffic accidents, as well as to examine the Traffic Accident Analysis proof model in traffic accidents that do not have witnesses.

2. Method
The type of research in writing this proposal is normative research, which includes research on legal systematics, research on the level of legal synchronization, research on legal history, and research on comparative law. The research approach used by researchers in compiling this research are; Legislative Approach (Statute Approach). Legal materials are collected through inventory procedures and identification of laws and regulations, as well as the classification and systematization of legal materials according to research problems. Therefore, the data collection technique used in this research is a literature study. Literature studies are carried out by reading, studying, taking notes, and making reviews of library materials. This research analysis method uses qualitative methods, namely research that refers to legal norms contained in legislation and court decisions as well as norms that live and develop in society. And describe quality data in the form of regular, coherent, logical, non-overlapping, and effective sentences, making it easier for data interpretation and understanding of analytical results, then the results will be used to discuss the problems posed in this essay.
3. The Concept of Application of Traffic Accident Analysis in Traffic Accident

Processing of Cases (TKP) using the Traffic Accident Analysis (TAA) method has been practiced in the Netherlands and then Indonesia has also applied this method to prominent traffic accident cases. This method uses PC Recht and PC Crash computer software. PC Recht is a computer program that can transfer a crime scene to a computer by taking photos at a crime scene with certain techniques and entering it into a program for analysis so as to speed up the crime scene handling process.\(^\text{14}\)

In addition, a PC crash is a computer program that simulates traffic accidents that are handled using modern science. The advantage of using the traffic accident investigation method with the Traffic Accident Analysis (TAA) method is that the crime scene processing process is carried out scientifically and can be reconstructed based on evidence that is at the crime scene (TKP), and can be accounted for.

The use of PC Crash is carried out in 4 (four) assignment levels, the assignment levels can be explained as follows:\(^\text{15}\)

a. First Stage;
   1. Ability to secure crime scenes;
   2. Mark the crime scene;
   3. Provide initial information;
   4. Checklist Minded;
   5. Ability to provide solutions for smooth flow.

b. Second Stage;
   1. Ability to record crime scenes with photogrammetric techniques;
   2. Ability to perform initial hypotheses.

c. Third Stage;
   1. Ability to process photogrammetry with the PC - Rect Program (PC Rect is software used to plan perspective photos so that the photos become images/objects that are visible from above)
   2. Ability to analyze and process data manually with the basic laws of physics;

d. Fourth Stage; The ability to simulate accidents based on existing parameters and data with the PC Crash Program in the form of 3D visual simulation shows according to the facts at the scene. (The results of the simulation recording can be attached when submitting the P21 BAP to the public prosecutor and for consideration by the judge in court).

\(^{14}\) Rudiana Eka Pramana Putra and Akhmad Khisni, "Traffic Accident Analysis in Process Evidence in Traffic Accidents Based on Act No. 22 of 2009",urnal Daulat Hukum Volume 1 Issue 4, December 2018, hlm. 951

\(^{15}\) Ibid, hlm. 952-953
In this regard, with the new TAA within the scope of the police, it is necessary to have police personnel who can implement it. A police officer is required to have a commitment to public service. In this case, apart from having the characteristics, a professional police officer is defined as a police officer who meets the standards that have been mutually agreed upon in the police profession and whose every thought, attitude, word, and deed is inspired by the professionalism of the police itself.

Based on the explanation above, it is important to place TAA in the framework of prevention and implementation as follows:

Preparation of TAA software (pilun) as a working guide
Emphasizing the preparation of instruments or software and work systems that can support the tasks of the police to maintain and overcome various disturbances of public order and security. Thus, it is hoped that it can accommodate community demands for the performance of the PolresSatlantas and can be implemented not only to make perfect plans but also to be implemented in the field effectively, able to project profiling scenarios, and be publicly accountable. Specifically for traffic accident problems, because the planning system is based on environmental scrutiny (implementation of Traffic Accident Analysis), the cause will be accurately identified so that the implementation of efforts to reduce traffic accidents will be applicable.

1. Law Enforcement
In general, there are problems in the field of legislation, namely the laws and regulations that have been applied so far to traffic violators are still not able to cause a deterrent effect, and create opportunities for collusion in the form of peaceful fines, extortion, and others. This condition is not merely a deviation committed by several Satlantas members, but among the road users themselves, there is indeed no culture of order, low traffic awareness, and a tendency to not want to be difficult / find it easy which is seen when exposed to a ticket / violates, does not want to bother taking care of it according to the procedure and chose to give a peaceful fine. In this situation, the community is only scapegoating the Polantas. Such a situation will eventually lead to legal uncertainty and injustice among the wider community, making it difficult for law enforcement officers on the road to enforce the law and consequent order. Sanctions for traffic violations should not be limited to fines, but if necessary the sanctions need to be added to imprisonment for cases such as driving under the influence of alcohol, these sanctions are included in a file that is used as a consideration or note in obtaining an SKCK (Letter Police Records Statement). Of course, this sanction must be balanced with the uncompromising attitude of the Indonesian National Police as law enforcers.

2. Issuance of Driver's Licence
That the requirement for drivers to have a driving license has been regulated in Chapter VIII Article 77 of Law no. 22 of 2009 concerning Road Traffic and Transportation, as well as examinations for applicants for a driving license as regulated in paragraph 3 of article 219 to Law no. 223 Government Regulation of the Republic of Indonesia Number 44 of 1993 concerning Vehicles and Drivers. In Law Number 2 of 2002 concerning the National Police of the Republic of Indonesia, article 14 paragraph (1) b, the Police of the Republic of Indonesia are tasked with carrying out all activities to ensure security, order, and smooth traffic on the road. In its implementation, among others, holding the issuance of a driving license with the requirements as stipulated in the legislation. Associated with traffic accident data seen from the aspect of the cause of the accident which turned out to be dominated by the human factor as the main factor among vehicle, road, and environmental factors, it is a challenge as well as an obligation for us the Indonesian National Police in charge of ensuring security, order and smooth traffic on the road to improving the quality of capabilities and skills of each Driver’s License applicant through responsible testing. It is undeniable that in cases of traffic accidents, driver indiscipline and traffic disorder are related to obtaining a driving license which is administered by the Indonesian National Police. It was found that there was a SIM ownership process without proper procedures so that we are often people who cannot drive but have a SIM A, this will result in our road users containing people who are not skilled at driving, do not understand traffic rules and do not care about safety principles.

If Traffic Accident Analysis can be implemented properly, the performance of the police will increase. Traffic Units will be able to reconstruct cases of fatal accidents that have resulted in many victims, both for the benefit of justice and for assessment/research for decision making in the context of accurate accident prevention because it is based on an accurate analysis of the causes of accidents from various aspects. Thus, the number of traffic accidents will be reduced as much as possible so that traffic safety is increasingly realized.

In turn, the recognition of the professionalism of the Indonesian National Police will emerge from the community. The level of professionalism of the Police includes professional, moral and mental capabilities as well as behavioral attitudes as state law enforcement tools, protectors, protectors, mentors, and public servants by community expectations. The professionalism of the Indonesian National Police is shown, among others, by an attitude that always adheres to the applicable rules, both those that apply in general and those specifically for the police institution.

Based on the explanation above, it can be said that the Traffic Accident Analysis method in the process of proving traffic accidents based on Law no. 22 of 2009 has weaknesses, including traffic rooms, terminals, and road equipment which
includes markings, signs, traffic signaling devices, road user control and safety devices, road monitoring and security tools, as well as supporting facilities. In addition, the new implementation of TAA is still one of the main problems.\textsuperscript{16}

The obstacle to the Traffic Accident Analysis Method in the process of traffic accidents is the arrangement by members who are not controlled and do not have basic skills in traffic management techniques and the motive is purely economic, so many things can cause traffic jams and crime. The discipline of the road user community is still very low, and the application of fines for traffic violations is still much lower than the maximum fine as stipulated in the legislation. The public transport passenger service system is given the opportunity to carry more than capacity.\textsuperscript{17}

4. **Traffic Accident Analysis Proof Model in Traffic Accident Without Witnesses**

It is undeniable and undeniable that the investigative actions carried out by Polri investigators against criminal acts are like a factory that must continue to operate. With all its power, the factory tries to find materials that can be produced, brings in production materials, sorts out the materials to be produced, and processes or enters the raw materials into production until they are ready for production. Even though the cost or fee is very insufficient, the production goods must be finished and must be ready to be sold on the "public market" namely the prosecutor's office, courts, and even legal counsel for suspects or defendants if necessary. Not everyone can take this action, although there is no need to deny it, sometimes there is news, and cases are being played for wrong purposes, but now it is very different because within the internal police institution itself there is a supervisory body that cannot be invited. compromise if there is a member error, and must be processed internally.\textsuperscript{18}

Legal evidence is tools that have to do with a criminal act, where these tools can be used as evidence for the truth of a criminal act that has been committed by the defendant. According to Article 184 paragraph (1) of the Criminal Procedure Code, the legal evidence is as follows:\textsuperscript{19}

1. The testimony of a witness is evidence in a criminal case in the form of a statement from a witness regarding a criminal event that he heard, saw, and experienced himself by stating the reasons for his knowledge. Before giving his testimony, the witness must be sworn in according to his religion and

\textsuperscript{16} Nainggolan A “Pelaksanaan penyidikan tindak pidana kecelakaan lalul intas yang menyebabkan matinya korban berdasarkan Undang-Undang Nomor 22 Tahun 2009 Tentang Lalu Lintas dan Angkutan Jalan”, JOM Fakultas Hukum 1 (2), 2014, hlm. 12

\textsuperscript{17} ibid

\textsuperscript{18} Hartono, Op.cit, hlm. 137

\textsuperscript{19} Wirjono Prodjodikoro, Tindak-Tindak Pidana Tertentu Di Indonesia, Refika Aditama, Bandung, 2015, hlm.75
belief that he will give true information and nothing other than the truth (Article 160 paragraph (3) of the Criminal Procedure Code).

2. Expert testimony is information given by someone who has special expertise on matters needed to make light of a criminal case for examination according to the method regulated in this Law. (Article 1 number 28 of the Criminal Procedure Code).

3. Letters can be in the form of official letters or not, which can be related to the crime that occurred.

4. Instructions are actions, events, or circumstances that due to their conformity, both with one another and with the crime itself, indicate that a crime has occurred and who the perpetrator is (Article 188 paragraph (2) of the Criminal Procedure Code). (1) only obtained from (a) witness testimony, (b) letter, and (c) defendant's statement. The strength of proof of an instrument of evidence in each particular situation is carried out by a judge wisely and wisely after conducting a thorough examination and testimony based on conscience (Article 188 paragraph (3) of the Criminal Procedure Code).

5. The defendant's statement is what the defendant stated in a trial about the actions he had committed or what he knew or experienced himself. (Article 189 paragraph (1) of the Criminal Procedure Code). However, the defendant's statement alone is not sufficient to prove that he is guilty of the act he is charged with, but must be accompanied by other evidence.

Article 184 of the Criminal Procedure Code as mentioned above mentions the legal evidence according to criminal law, namely: 1) Witness testimony; 2) Expert testimony; 3) Letters; 4) Hints, and 5) The defendant's statement. From some of this evidence, it can be seen that witness statements are the main evidence in proving criminal cases in addition to other evidence. 20

One witness's testimony is not enough to prove that the defendant is guilty of the criminal act he is accused of. Information about several witnesses who stand alone regarding an event or situation can be used as valid evidence if the witness statements are related to each other in such a way that they can justify the validity of a certain event or condition.

The importance of presenting a witness before law enforcement officers, especially at the level of investigation, is to be able to guarantee the disclosure of criminal cases, even though they are not absolute. The importance of the testimony of a witness as legal evidence by the provisions of Article 184 of the Criminal Procedure Code, therefore the presence of a witness in a traffic accident is something that will greatly assist the law enforcement process.

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According to Law Number 13 of 2006 concerning the Protection of Witnesses and Victims, where a witness is a person who can provide information for investigation, investigation, prosecution, and examination in court regarding a criminal case in which he has heard himself, seen himself, and/or he experienced himself. According to the provisions of Article 185 Paragraph (1) of the Criminal Procedure Code, namely the testimony of a witness as evidence is what the witness stated in court. Witness statements that are in accordance with judicial interests are based on the explanations of an article I point 27 and article 185 paragraph (5) of the Criminal Procedure Code, both opinions and fiction obtained from the results of thoughts alone, do not witness statements.\(^\text{21}\)

Furthermore, according to Yahya Harahap, explaining that in addition to his hearing or his vision as well as his own experience from the witness, it must be supported by reasons of knowledge that are logical or reasonable. The appropriate number of witnesses for the judiciary. Referring to Article 185 paragraph (2) of the Criminal Procedure Code, it can be seen that there is an adage Unus testis, nullus testis, which means that one witness is not a witness. This means that witness testimony alone is not sufficient to prove the defendant's guilt, the priority is the quality of his testimony that can prove the suspect's guilt.\(^\text{22}\)

Witness testimony is needed by investigators to complete the case file and almost every investigator's case file is equipped with witness testimony. Witness testimony is the main evidence that is often used by investigators because this evidence is very easy to account for in front of a court session, besides that witness statements can provide clues for investigators to find other evidence.

The investigation and self-investigation carried out by the Traffic Unit begin with the implementation of the investigation. The investigation is the first attempt by the traffic police in carrying out their main duties in the event of an accident that results in the death of another person. As Article 1 point 5 of the Criminal Code states that an investigation is an investigator's action to seek and find events that are suspected of being criminal acts to determine whether or not an investigation can be carried out according to the method regulated in this Law. Conduct of Investigation According to Article 1 point 3 of the Criminal Code, an investigation is carried out according to the method provided for in this Law to seek and collect evidence with which evidence makes clear the criminal act that occurred and finds the suspect.

In the case of a traffic accident, the problem that arises is in determining the suspect in the incident. Investigators must carefully analyze based on the\(^\text{21}\) Kurniawan, “Kinerja kepolisian dalam penanganan kecelakaan lalu lintas (Studi kasus di Polisi Resor Samarinda)”, E-Journal Ilmu Pemerintahan 4 (4), 2016, hlm. 56
\(^\text{22}\) M. Yahya Harahap, Pembahasan Permasalahan dan Penerapan KUHAP Pemeriksaan Sidang Pengadilan, Banding, Kasasi, dan Peninjauan Kembali. Jakarta: SinarGrafika, 2016, hlm. 286
available evidence about who the suspect in the case is. Because sometimes the victim is a suspect in a traffic accident, it is not absolute that the survivors involved in the accident are the suspects. Often in a traffic accident case, there are no witnesses who see firsthand how the accident occurred.

To find the suspect, the steps taken in the context of investigating an accident that resulted in the death of another person are those who carry out the first crime scene investigation. In this case, the investigator conducts the crime scene to be able to determine how the accident occurred by giving a sign where the victim and evidence were found. After marking the crime scene measurements and installation of police lines. To facilitate the investigation, investigators sketch the accident and engineer the incident.

This is done to obtain clarity on the incident, how the accident could have occurred, who was the victim and the perpetrator, how many people were victims, interpreting how much material loss was suffered, and the extent to which an investigation could be carried out. At the scene of a traffic accident, obtaining evidence is used for further investigation.

According to Andi Hamzah, evidence is evidence regarding where the offense was committed (the object of the offense) and the goods with which the offense was committed (a tool used to commit the offense), including goods that are the result of an offense. a. Is a material object; b. Speak for yourself; c. The most valuable means of proof compared to other means of proof, and D. It must be identified with the testimony of witnesses and the testimony of the accused.

Referring to this opinion, the evidence obtained at the scene of a traffic accident other than the motor vehicle involved in the accident must also take pictures/photos taken from the crime scene. Currently, Polri has developed a technology-based system using the Traffic Accident Analysis method using PC Rect and PC Crash software. This is one of the supporting methods when in the event of a traffic accident there is no witness in the field.

The work of this system starts from the data obtained at the traffic accident scene and is then processed into a traffic accident reconstruction in the form of 2 (two) dimensions on the computer. The tool to reconstruct the software is called PC Rect and PC Crash. Reconstruction was obtained in the pre-crash, crash, and post-crash phases.

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24 Andi Hamzah, Hukum Acara Pidana Indonesia Edisi Kedua ,Sinar Grafika, Jakarta, 2008, hlm. 122
25 Muhammad Tito Karnavian, “Fungsi Traffic Accident Research Centre Untuk Mendukung Program Keselamatan Berlalu lintas”, Journal of Indonesia Road Safety - Vol. 1, No. 1, April 2018,hlm. 4
The function of PC Rect and PC Crash software is to process evidence into evidence. The definition of evidence in Article 184 paragraph (1) of the Criminal Procedure Code ("KUHAP") states that valid evidence is: witness testimony, expert testimony, letters, instructions, and statements of the defendant. In a criminal procedural law evidentiary system that adheres to the negative stelselwettelijk, only legal evidence according to the law can be used for proof.

Referring to this understanding, the results of the 3 (three) dimensional reconstruction made through PC Rect and PC Crash Software are located in the evidence in the form of "Hints". Instructions are actions, events, or circumstances that are due to their conformity, either with one another or with the crime itself. Indicates that a criminal act has occurred and who the perpetrator is (Article 188 (1) of the Criminal Procedure Code). 26

In HIR article 310 what is meant by instructions are actions, events or things that are in agreement with each other or with the actions accused of the accused can clearly show that a crime has been committed and who did it. With clear instructions regarding a traffic accident, it will facilitate the judicial process (investigation, prosecution, and court verdict), because there is clarity in seeing the accidents that occur, and it is clear which vehicle driver's position violates the existing rules.

Proof of traffic accidents utilizing technological developments, using PC Rect and PC Crash Software, is expected to affect improving the performance of traffic investigators because they can clearly describe an accident event. Both in the pre-crash, crash, and post-crash phases, it is known the violation that caused the traffic accident.

There are several advantages of the PC Crash Program, including the following:27

a. Minimizing the occurrence of crime scene damage;
b. A thorough examination of the crime scene can be carried out at the investigator's office without having to go to the crime scene;
c. The validity of the investigation as optimally as possible is based on the crime scene, (witness testimony as supporting);
d. Elements of evidence are easy to data and reproduce;
e. Can replay accident events in 3D visual simulation;
f. Can demonstrate avoided theory or accident avoidance theory;
g. Validity can be accounted for;
h. Can be synchronized with PC Rect Program.
i. Can be an alternative way in an accident that has no witnesses

26 Ibid
27 Ibid, hlm. 6-7
The PC Crash program can broadcast reruns of accident events in a 3D visual simulation, and its validity can be accounted for and has been internationally recognized and even this program has been implemented in the judiciary in handling traffic accident cases in several developed countries such as the Netherlands.

Determination of the party responsible for an accident according to the event, shows that there has been legal certainty in the investigation of traffic accidents. After a traffic accident, the police must immediately take action against the perpetrators of the accident, namely by making arrests. This is to prevent the perpetrators from leaving the crime scene or trying to escape.

The arrest of the perpetrator of a criminal act of negligence that resulted in the death of another person is an investigator's act in the form of a temporary arrest of the suspect's freedom if there is sufficient evidence for the purpose of the investigation. In accordance with the investigator's obligations as stated in Article 7 letter D, investigators are authorized to make arrests, detentions, searches, and confiscations.\(^{28}\)

In this regard, the fulfillment of at least two pieces of evidence, positive law does not provide an obligation that one of the evidence used must be a witness statement. As long as the Judge has obtained the conviction that a criminal act has indeed occurred and the guilty defendant is accompanied by a minimum of two pieces of evidence, as there are four pieces of evidence other than witness statements based on Article 184 paragraph (1) of the Criminal Procedure Code as follows:

- **Legal evidence is:**
  a. witness testimony;
  b. Expert statement;
  c. letter;
  d. instruction;
  e. defendant's statement.

Although Article 185 paragraph (2) of the Criminal Procedure Code jo. Article 185 paragraph (3) of the Criminal Procedure Code states:

1. The testimony of a witness alone is not sufficient to prove that the defendant is guilty of the act he is accused of;
2. The provisions as referred to in paragraph (2) shall not apply if accompanied by other valid evidence;

It is understood that without a witness if accompanied by other valid evidence, it is sufficient to prove that the defendant is guilty of the act he is accused of, this provision cannot be interpreted as having at least one witness to fulfill a

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minimum of two pieces of evidence in Article 183 of the Criminal Procedure Code. Because Article 185 above is an affirmation of at least two pieces of evidence, which is also contained in the provision regarding the defendant's statement in Article 189 paragraph (4) of the Criminal Procedure Code which states: The defendant's statement alone is not sufficient to prove that he is guilty of committing the act he is accused of, but must be accompanied by other evidence.

Based on this, it is in line with the previous opinion, that law enforcement can impose a sentence on the defendant without evidence of witness testimony, but must meet at least two other pieces of evidence. According to M. Yahya Harahap, in general, witness testimony is the main evidence, it can be said that there is no criminal case that escapes the evidence of witness testimony.

The use of the TAA method is very useful for the police to obtain reconstruction data obtained in the pre-crash, during the crash, and post-crash phases. The function of PC Rect and PC Crash software is to process evidence into evidence. Detailed instructions for a traffic accident, make it easier for the police to process investigations, prosecutions, and go to court. Because the tool seemed to re-record the accident that occurred.

Through proof of traffic accidents using TAA, it is hoped that it will have a positive influence on improving the performance of traffic accident investigators because they can describe the details of an accident. The tool can reconstruct during the pre-crash, crash, and post-crash phases, so that it is known who triggered the accident.

5. **Conclusion**
The concept of applying Traffic Accident Analysis in traffic accidents uses two main methods, namely: clinical and statistical approaches. For the implementation use PC Recht and PC Crash software by doing pre-accident and post-accident construction.

The application of Traffic Accident Analysis is very important to do and becomes an alternative when there is no witness in a traffic accident. This is necessary to assist investigators in reconstructing accidents and determining suspects and victims.

**References**

**Book:**


Muhammad, A. *Hukum Pengangkutan Niaga*. Bandung: Citra Aditya Bakti. 2010


**Journal article:**


