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Real Time Road Accident Information and Insurance Dispute Resolution

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ABSTRACT: Road accident Insurance Claim is an important issue that remains unconcerned. Existing system's focal point turns out to be road accident prevention based on approximate monitoring of vehicular riding actions and mere earmarking of accident prone locations but there is not much importance given to road accident insurance claim. To address this issue, this project aims to develop a system that helps the road accident victims recover from the aftermath by timely insurance claim by gathering the real time information about road accidents which includes the photos of the site, interviews with eyewitnesses, information on injuries and fatalities, reason for accident, speed, road condition on relative basis, etc. All this data will be stored in a central database. Based on this information data analytics will be employed to send an alert to the users. The responsibility for collecting the data will be entrusted to police, transport authority, ambulance or even ordinary citizens who volunteer for the same. It is followed by providing a provision for the Police patrol and the Hospital to upload their respective proofs in the system cloud. So when the road accident victims are in desperate need of insurance they could access the system and retrieve their respective proofs from the cloud and submit these proofs to claim the insurance. The additional option of submitting/ exchanging insurance numbers/details to settle any dispute validates the efficiency of our system.

KEYWORDS: cloud computing,insurance,road accident,data analytics

I. INTRODUCTION

Road accidents are undoubtedly the most frequent and, overall, the cause of the most damage. The reasons for this are the extremely dense road traffic and the relatively great freedom of movement given to drivers. Accidents involving heavy goods vehicles (especially coaches and lorries with trailers) occur all too frequently despite calls for responsible behavior, for respect of the loading regulations and the highway code, as well as the obligation for drivers to adapt their speed, which affects stopping distances, to the traffic and weather conditions (rain, ice, fog, etc.). The prevention of road accidents is also extremely important and will be ensured by strict laws, by technical and police controls, ongoing training for drivers (especially those involved in the transport of dangerous substances) and, if need be, by legal and administrative penalties for those responsible. The control of all accidents is, in the first instance, the responsibility of the commander (chief) and personnel of the affected means of transport. It is up to them to limit the resulting damage as much as possible. Passengers must obey the directives of the personnel on board (protective and rescue measures) and behave as they are instructed by the regulations on disaster situations, especially air, rail or maritime disasters. As

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far as search, rescue and assistance operations are concerned, the means or system of transport involved and the area (country) where it occurs will determine who is the person in charge at the disaster site.

II. LITERATURE REVIEW

Chia-Ming Tsai et.al [1] did survey on video summarization techniques aim at condensing a full-length video to a significantly shortened version that still preserves the major semantic content of the original video. Movie summarization, being a special class of video summarization, is particularly challenging since a large variety of movie scenarios and film styles complicate the problem. In this paper, we propose a two-stage scene-based movie summarization method based on mining the relationship between role-communities since the role communities bin earlier scenes are usually used to develop the role relationship in later scenes.

MahmoodKarimian et.al [2] performed semantic video analysis and automatic concept extraction play an important role in several applications; including content-based search engines, video indexing, and video summarization. As the Bayesian network is a powerful tool for learning complex patterns, a novel Bayesian network-based method is proposed for automatic event detection and summarization in soccer videos. The proposed method includes efficient algorithms for shot boundary detection, shot view classification, mid-level visual feature extraction, and construction of the related Bayesian network

Stefan Atev et.al [3] carried out monitoring traffic intersections in real time and predicting possible collisions is an important first step towards building an early collision-warning system. We present a vision-based system addressing this problem and describe the practical adaptations necessary to achieve real-time performance. Innovative low-overhead collision-prediction algorithms (such as the one using the time-as-axis paradigm) are presented. The proposed system was able to perform successfully in real time on videos of quarter-video graphics array (VGA) (320 × 240) resolution under various weather conditions. The errors in target position and dimension estimates in a test video sequence are quantified and several experimental results are presented.

AlunPreece et.al [4] introduced the Sentinel platform that supports semantic enrichment of streamed social media data for the purposes of situational understanding. The platform is the result of a co design effort between computing and social scientists, iteratively developed through a series of pilot studies. The platform is founded upon a knowledge-based approach, in which input streams (channels) are characterized by spatial and terminological parameters, collected media is preprocessed to identify significant terms (signals), and data are tagged (framed) in relation to an ontology

Sandra Zancajo-Blázquez et.al [5] performed data acquisition in forensics science must be performed in a fast and an efficient way, so that the data acquired is maximized at the same time that disturbance and time on the scene are minimized. For this reason, the use of indoor mapping systems appears as a key solution, in contrast with static systems, either laser or photogrammetric based, in which representing big and complex scenes requires acquisition from a high number of positions, and long-time dedication for data processing. This paper presents a methodology for the segmentation of point clouds acquired with a mobile indoor mapping system, and their conversion to 3-D models in CAD format, based on parameterized geometric elements from the scene. This way, all the information required in forensic sciences is stored in an adequate digital format, enabling its availability in the future, and minimizing time dedication in both data acquisition and processing steps

Dr. Williamjeet Singh et.al [6] examined the big data which is voluminous and complicated assortment of information that comes from completely different sources like sensors, content denote on social media web sites, sale purchase dealings etc. Such voluminous knowledge becomes robust to method victimization ancient process application. There are distinct tools and techniques within the marketplace for big data analytics. With regularly increasing population, crimes and rate analyzing connected knowledge may be a large issue for governments to form strategic selections thus to maintain law and order.

III. PROPOSED SYSTEM

In the proposed system, all the information about the accident can be directly uploaded by police/emergency system / any volunteer. We are going to maintain the system to gather further details about the road accidents. Based on this information by utilizing data analytics we have planned to send an alert to the users of the system when they are at 100-200 meters prior to the accident prone zone. The police and the hospital authorities are provided with a provision to upload their respective proofs regarding the accidents in our system cloud so that it would be easier for the road accident victims to claim the insurance by accessing our system to retrieve the proofs .In this framework, there is an arrangement to submit/trade protection numbers/subtleties so as to settle the queries if any emerging out of mishap. The major benefit is it saves the time and energy of the victims as they are just one click away from retrieving their respective proofs from our system cloud. It acts as a one stop destination for the victims, police patrol and hospital to maintain, update and access any kind of information regarding road accident. Development of the application significantly

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improves the timeliness of accident reporting as it encourages prompt reporting and investigation for quick action. False accident reporting is avoided as the submitted proofs comes under the control of the police patrol.

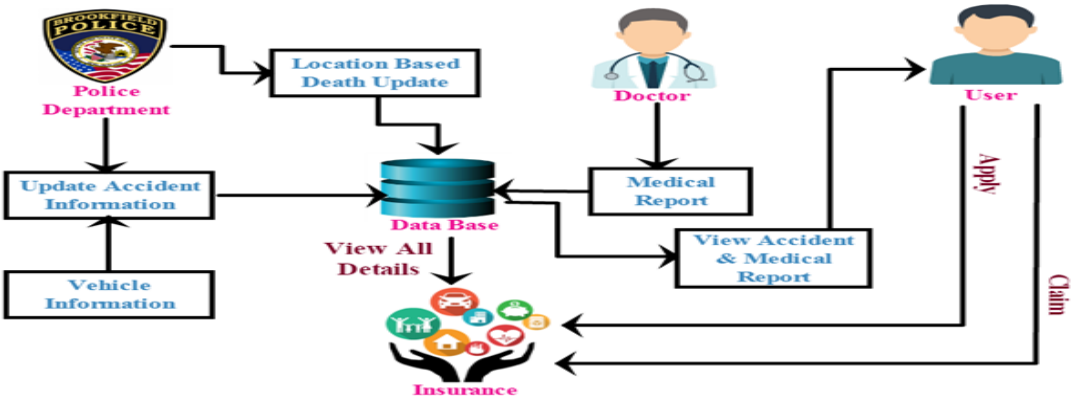

fig 1.1 Architecture Diagram

fig 1.2 Police Registration Form

ACCIDENT DATA FROM CONCERNING ORGANIZATION

The accident data's will be collected from the different organization by the police department. The information can include a photos of the site where accident has been occurred, Interviews with the eyewitnesses the person who was physically present at the place where accident has happened, and also can be the information about the injuries and fatalities, reason for accident may be over speeding, drunken driving, distractions to driver, red light jumping, avoiding safety gears like seat belts and helmets etc.

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fig 1.3 Death Information Updation

ACCIDENT MEDICAL REPORT

The doctor will update the accident medical report such as movement of client on impact, immediate symptoms, current symptoms and treatment, loss consequential to injury and at last the reviews of the medical report. The victims or user can also view the medical report which is updated from the doctor

fig 1.4 Vehicle Accident Information

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INSURANCE CLAIM FOR ACCIDENT COMPENSATION

The claim is the first step toward being compensated for medical expenses, lost wages, or other damages resulting from the accident. The insurance company will then open an investigation of claim and victims may be asked to submit the accident report or independent medical examination by a doctor.

fig 1.5 Police Department Login

INDIVIDUAL ACCIDENT CASUALTY REPORT MATCHING

In this project, the police and hospital records from the road accident casualties were collected to determine their matching and reporting records of the particular victim. The police department will update the road accident information and also along with the vehicle information. The police department also updates the location based death updates, it all maintain and stored in the secured database.

IV. CONCLUSION

It is concluded that the system is to provide emergency service to get the accident information and reach in time. Data integration enables better & faster decision on data from heterogeneous sources and provides saving in life and time. Automobiles are very important to go to workplaces, and to deliver goods. But often they pave the way to big disasters. Road accident is most unwanted thing to happen to a road user, though they happen quite often. It has been developed to make reporting easier, provide consistency in reporting data, assess trends and ultimately contribute to injury prevention.

V. FUTURE ENHANCEMENTS

Based on the road accident data by employing DATA ANALYTICS accident prone zones will be identified. When the user approaches the accident prone zones an alert will be sent to their mobiles well in advance (approx 200-300 meters) to avert future accidents

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