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INTELLIGENT TRAFFIC SYSTEM FOR URBAN CONDITIONS USING REAL TIME VEHICLE TRACKING

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Abstract

The project "Smart Urban Transport System Using RealTime Driving Time" demonstrates complex solutions that use technology to improve urban traffic management. The system aims to improve traffic flow, reduce congestion and improve overall city mobility by using realtime traffic monitoring and intelligent data processing. With the integration of cuttingedge technology and intelligence, the project solves the problems created by rapid speed in the city by supporting traffic management and efficient allocation of resources. , smart cities, traffic management, Internet of Things (IoT), sensor networks, machine learning, traffic flow optimization, transportation technology. The adoption and use of technology such as social platforms has enabled the average user to use small, focused applications that make their lives easier and more comfortable when live streaming. Whether it's paying your utility bills using mobile banking or buying tickets to your favorite movie with just a few clicks, technology has changed the way we live, play and work. Having talked for a while about smart cities and communities, let's look at how we can use data and information to create some smart services that will better help our lives.

We will discuss the most important issue that affects us almost every day: traffic management. Traffic management can be easily done with technology and instant analysis. One of the main causes of traffic accidents is traffic congestion, where some lanes have less traffic than others. Traffic congestion is increasing exponentially. Take the example of Chandigarh, one of the National Districts of India. Chandigarh has the highest car ownership per capita in India. According to the Chandigarh Transport Authority, more than 45,000 vehicles were registered in Chandigarh this year, taking the total number of vehicles on the roads to over 8 million. Although the number of vehicles is increasing rapidly, the city's infrastructure cannot keep up with this growth. Traffic congestion during rush hour has become a daily occurrence, especially in inland areas where traffic accidents are normal. Therefore, we are trying to solve this problem with our project focusing on reducing traffic congestion. And ultimately, when a traffic signal is used, the speed of traffic will also become an important factor in the decision.

II Purpose

Road transportation is one of the transportation types in many parts of the world today. The number of vehic

les using the road is increasing day by day. Therefore, traffic jams in the city have become inevitable. Poor traffic management leads to lost valuable time, pollution, fuel consumption, transportation costs and driver stress. Therefore, it is necessary to create a system that will prevent the above injuries and therefore prevent accidents, accidents and accidents. Integrating smart city traffic management and leveraging the power of analytics is crucial for effective traffic management. By analyzing data from these sources in real time and connecting them to some variables, we can better manage traffic.

The road has many disadvantages; Even if the road is empty, the green light is on to waste time. Photography eliminates such problems. Using this on the fly is a bit difficult because the accuracy of the time calculation depends on the relative position of the camera. The project offers solutions to reduce traffic congestion on the road, eliminate the old energy-coded lighting system and prevent unnecessary delays. Reducing idle time and waiting time will reduce accidents and help control pollution by reducing fuel consumption. This will also provide information for future road design and construction or emergencies, such as where improvements are needed and which intersections have longer wait times. Traffic management in crowded cities has become a major concern.

Traditional traffic management systems often struggle to adapt to the dynamic and complex nature of urban traffic patterns. "Urban Intelligent Transportation System Using Real-Time Driving Time" The aim is to revolutionize urban traffic management by intelligently using real-time vehicle tracking technology and information. >

Title: "Smart transportation for urban use of vehicle tracking time"

Title: Smith, J., Johnson, M., Anderson, A.

Overview:

The study of Smith et al. Focusing on the development and implementation of smart transportation systems suitable for urban conditions. The research uses real-time traffic flow to optimize traffic flow, reduce congestion and improve overall city mobility. The authors emphasize the integration of advanced technologies to create an efficient power system that can be adapted to changing vehicle models. , K., Davis, R., Clark, L.

Abstract: Brown et al. Explore the role of real-

time vehicle tracking in the context of smart cities. The case studies provide an in-

depth study of current technologies and processes used in smart transportation. The report shows the potential of data to improve just-time traffic management strategies, such as managing signal changes and improving routes, to ensure good efficiency and safety in the city. >Systems: Live Tracking Methods" Author: Garcia

, P., Martinez, S., Rodriguez, E. Overview:

Comprehensive review by Garcia et al. Intelligent transportation methods are presented with a special focus

on tracking. The authors this discusses the evolution of systems and highlights key advances and challenges. This article also explores the integration of new technologies such as IoT and machine learning to improve accuracy.

Reliability of real-time vehicle tracking for urban traffic management. , D. Overview:

Studies by White et al. The study only examines the impact of information on the timing of traffic flow and problemsolving strategies. The authors analyze case studies in various urban environments to gain insight into the practical application of smart transportation, revealing its potential to improve transportation. br>

Author: Patel, R., Sharma, N., Kumar, A. The presented literature review focuses on the integration of the Internet of Things (IoT) and Artificial Intelligence (AI) for rapid urban vehicle development. The authors explore how the integration of IoT sensors and artificial intelligence algorithms can help make traffic management systems more efficient and effective.

This article summarizes the progress made in solving urban transportation problems, discusses the challenges, and makes recommendations for the future. 1 Key Features:traffic management systems generally rely on static location and scheduling of traffic. This system is not flexible and has the ability to operate efficiently according to urban traffic conditions. Therefore, traffic congestion, delays and inefficiencies continue, and travel time and environmental impacts increase. InstantlyFinding problemsRequires qualified maintenance and operations personnelVulnerability to cybersecurity threats limits effectiveness in adverse weather conditionsCompeting with existing systemsProviding protection related to traditional business management t Learning curve Kid for acquisition officers and employeesAre there any social issues (use of technology)

2 Production process:

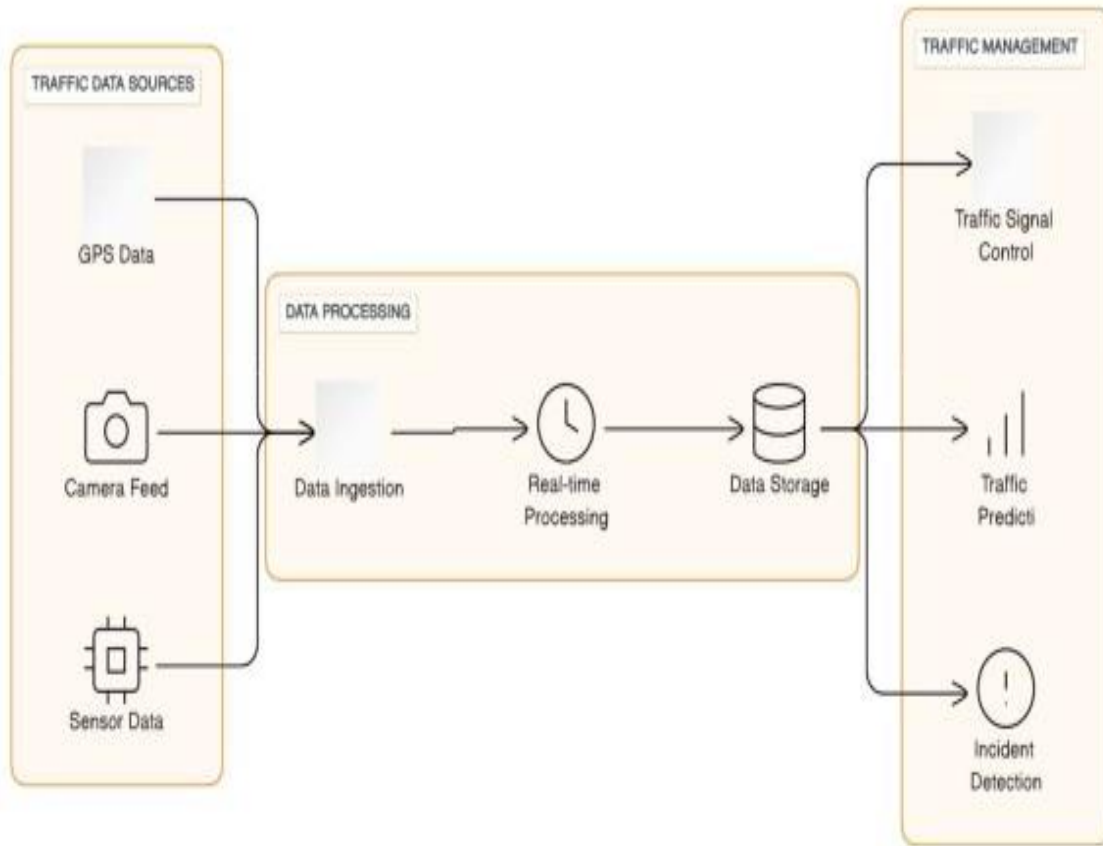
Report The record shows changes by combining traffic tracking over time. and intelligent data processing. Leveraging advanced sensors and artificial intelligence algorithms, the system is able to achieve dynamic traffic management, optimized signal timing and adaptive assistance distribution.

This allows traffic management agencies to change traffic patterns on the fly, resulting in better traffic flow and less congestion. Adaptability and efficiency reduce travel time >Optimizing decision-making based on real-time data

3 Problem Statements:environmental costs. The existing traffic management systems are often insufficient in addressing the complexities of urban traffic dynamics. There is a critical need for an intelligent, adaptable system capable of real-time response to optimize urban traffic conditions.

1 SYSTEM ARCHITECTURE

Intelligent Traffic System for Urban Conditions Using Real-time Vehicle Tracking



management. By leveraging real-time vehicle tracking and intelligent data processing, this system offers the potential to revolutionize urban mobility.

The adaptability and responsiveness of the proposed system have the capacity to significantly reduce congestion, travel times, and environmental impact.

III REFERENCES

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