Patent Search

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Abstract:

The invention relates to an AI-based road-safety and accident-response system configured to detect roadway hazards, identify vehicular accidents, and autonomously gen authenticated multimedia evidence. The system includes a sensor module for monitoring vehicular motion and environmental conditions, a camera module for capturing incident images and videos, and an AI engine for analysing multi-modal data to classify hazards and determine accident severity. Upon detecting an incident, the system c geotagged evidence, encrypts the data, and transmits it to a cloud-based platform for secure storage. An emergency-support module automatically notifies responders, la enforcement agencies, or designated contacts with real-time location and severity details. The system further supports insurance verification and coordinated multi-agenc response.

Complete Specification

Description:FIELD OF THE INVENTION

[001] The present invention relates to the field of automotive safety systems, intelligent navigation technologies, accident detection frameworks, and emergency-respons management platforms. More particularly, the invention pertains to an AI-powered, sensor-integrated road-safety and navigation assistance system configured to provid real-time environmental awareness, route guidance, accident detection, automated emergency support, multimedia evidence generation, and insurance-claim verificatio The invention further relates to systems employing IoT-based vehicular sensing, cloud-based data storage, multi-agency coordination dashboards, AI-driven safety analyt and autonomous accident-reporting architectures to enhance public road safety, reduce response delays, and provide authenticated, tamper-proof accident documentat

BACKGROUND OF THE INVENTION

[002] Road traffic accidents continue to be a major global concern, resulting in significant loss of life, injuries, property damage, and economic disruption. Despite advancements in vehicular design, roadway engineering, and digital navigation tools, existing traffic-safety mechanisms remain fragmented, reactive, and heavily depenc on manual human intervention. Accident victims often experience delays in receiving timely assistance due to the absence of automated incident detection, lack of preci location reporting, or inability to generate verifiable evidence at the moment of impact. This delay contributes to increased fatality rates, prolonged trauma, and inefficiencies in public safety response systems.

View Application Status

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