Patent Search

Invention Title	AI-Enabled 360° Vehicular Accident Detection and Insurance Automation System
Publication Number	01/2026
Publication Date	02/01/2026
Publication Type	INA
Application Number	202541124387
Application Filing Date	10/12/2025
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q 40/08, H04N 7/18, G07C 5/08, G06N 20/00, G07C 5/00

Inventor

Name	Address	Country	Nati
Preethi Bitra	Assistant Professor, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
V Vijaya Durga Poodi	Assistant Professor, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
R. Anirudh Saketh	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
S. Pavan Reddy	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
R. Swamy	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
S. Sai Ganesh	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
K. Lokesh Surya Prakash	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
V. Sahasra	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
V. Rishita	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
K. Thanushree	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi
V. Sai Ritwik	Student, Department Of CSE, Vishnu Institute Of Technology, Kovvada, Bhimavaram, Andhra Pradesh, 534202.	India	Indi

Applicant

Name	Address	Country	Nation
Vishnu Institute of Technology	Sri Vishnu Education Society, Kovvada Rd, Vishnupur, Kovvada, Andhra Pradesh 534202	India	India

Abstract:

The invention relates to an AI-enabled vehicular accident-detection and insurance-automation system comprising a 360° multi-camera assembly, a telematics-based sensc module, and an onboard processing unit executing machine-learning algorithms to detect and analyse collision events. Upon detecting an impact, the system automaticall captures pre- and post-accident video, extracts metadata including time, location, severity, and impact direction, and encrypts and transmits the evidence to a secure remc blockchain-based storage system. An automated insurance-initiation module communicates authenticated accident data to insurers, while an emergency-response modul designated contacts and service providers with real-time crash information. The system provides autonomous, tamper-proof accident documentation, rapid claims proces and improved safety intervention without requiring user input.

Complete Specification

Description:FIELD OF THE INVENTION

[001] The present invention relates to the field of automotive safety systems, insurance technology (InsurTech), and intelligent emergency response platforms. More particularly, the invention pertains to an AI-enabled 360° vehicular dashcam system integrated with real-time accident detection, automated insurance claim generation, blockchain-secured evidence storage, and coordinated roadside assistance dispatch. The invention further relates to smart vehicular telematics, sensor-driven crash analytics, secure digital evidence management, and automated fault assessment frameworks deployed in motor vehicles for enhancing driver safety, reducing insurance fraud, and enabling instant emergency support.

BACKGROUND OF THE INVENTION

[002] Motor vehicle accidents remain a major cause of fatalities, injuries, property damage, and insurance disputes worldwide. Despite advancements in vehicular safety post-accident processes—including evidence gathering, fault determination, emergency response, and insurance claim submission—continue to be slow, error-prone, ar heavily dependent on human reporting. In many cases, critical accident data is either lost, inaccurately recorded, or tampered with, leading to prolonged claim settlemer increased fraud, and significant financial losses for both vehicle owners and insurers. The absence of objective, tamper-proof digital evidence further complicates liability assessment and lengthens dispute resolution cycles

View Application Status