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Transportation Tracking System: Technologies and Applications for Logistic Firms

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Abstract

Logistics in the transportation industry face ongoing difficulties, particularly in maintaining driver safety and improving operational efficiency. The frequency of accidents involving drivers who are intoxicated or fatigued is a major problem in the real world. In this study, we suggest an integrated system which includes modern technologies such as alcohol detectors, eye-tracking cameras, global positioning system, and temperature monitors. Our solution involves using smart sensors and intelligent machine learning algorithms to detect alcohol levels and spot signs of driver fatigue by analyzing their eye movements. Not only does the solution ensure compliance with safety regulations but it also allows for real-time data collection and analysis are emphasized here, making our system not just safer but more efficient for logistic operations. In the future, transportation will lean heavily on automated drones and self-driving vehicles, especially for the final parts of deliveries. These advancements mean goods will get delivered faster, accounting for less traffic, and logistics will become more eco-friendly.

Keywords: Transportation tracking system, Global positioning system, Blockchain, Real time monitoring, Sustainable logistics