

## Documents

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**Mobile-Enabled Traffic Monitoring with Alert System for a Better Drive**

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**Abstract**

Traffic congestion has become a serious issue in modern cities as urbanization has accelerated and the number of vehicles on the road has increased. Countless attempts have failed to alleviate these problems. Outdated signage and rigid roads force drivers to rely on unreliable broadcasts and maps, resulting in frustration, leading to unwanted accidents and unexpected delays. To address this issue, a mobile-enabled traffic monitoring system with alerts is being developed to improve road safety and the driving experience. It integrates additional alert systems using traffic data from Google Maps API, mobile crowdsensing and crowdsourcing data, and AI tools for analyzing and predicting traffic trends. Built using FlutterFlow, the application monitors traffic conditions and provides users with critical information and alerts in real-time. The main finding in this work that this approach offers live traffic updates, personalized route recommendations, and timely alerts about accidents and road closures. Integrating advanced technologies into a user-friendly mobile platform enhances traffic monitoring, leading to better decision-making, optimized routing, and improved road safety. © 2024 IEEE.

**Author Keywords**

alert system; mobile app development; traffic monitoring

**Index Keywords**

Advanced traffic management systems, Air traffic control, Application programming interfaces (API), Crowdsourcing, Highway accidents, Highway traffic control, Motor transportation, Street traffic control, Traffic signs; Alert systems, Driving experiences, Google maps, Mobile app, Mobile app development, Number of vehicles, Road safety, Traffic data, Traffic monitoring, Traffic monitoring systems; Traffic congestion

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