

## # 🚧 Smart Hazard Detection System – Problem Statement

### ## 📌 Background

Road safety is a critical issue in both urban and rural environments. Drivers frequently encounter unexpected hazards such as potholes, speed breakers, and open manholes.

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### ## ! Problem Definition

The current system faces several challenges:

- Unreliable hazard reporting
- Dynamic road conditions
- Lack of real-time detection
- Unmarked hazards

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### ## ⚠️ Impact

- Increased accidents
- Vehicle damage
- Unsafe driving

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### ## 🎯 Objective

To build a system that detects hazards in real time and alerts users.

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### ## 💡 Proposed Solution

Use GPS, accelerometer, and elevation data to detect hazards and store them in Firebase, providing real-time alerts.