

# Car Accident Detection System using GPS Module

Ganesh D. Govindwar<sup>1</sup>, Vedant L. Kalambe<sup>2</sup>, Pranay G. Rapartiwar<sup>3</sup>,  
Rajvivekanand S. Bokade<sup>4</sup>, Yash S. Mawade<sup>5</sup>, Yamini P. Rajurkar<sup>6</sup>

Students, Department of Information Technology & Engineering<sup>2,3,4,5,6</sup>

Professor, Department of Information Technology & Engineering<sup>1</sup>

Sipna College of Engineering & Technology, Amravati, Maharashtra, India

Sant Gadge Baba Amravati University, Amravati, Maharashtra, India

**Abstract:** In this paper, we'll implement two features: GPS tracking and engine locking mechanism. And secondly the accident detection and alert system. Despite the majority of people having their own cars today, theft still occurs in parking lots and occasionally when driving in unsafe areas. For public transport vehicles, vehicle safety is of the utmost importance. The car has a tracking and locking system installed to lock the engine and track its location. Using the Global Positioning System (GPS) and the Global System for Mobile Communication (GSM), the location of the car is determined. These devices continuously monitor a moving vehicle and provide status reports as needed. When a theft is discovered, the person in charge sends an SMS to the microcontroller, which causes the microcontroller to send out control signals to turn off the engine. Authorised person needs to send the password to the controller to restart the vehicle. This is More secure, reliable and low cost. Numerous fatalities are caused by automobile accidents on highways every day all over the world. The primary causes of these fatal accidents are the lack of knowledge about impending roadblocks and the delay in the rescue team's arrival at the accident site owing to their unknown location. An efficient approach to reduce traffic deaths and injuries is to alert the driver about hindrances on the roadway that can be the reason for mishap, prior and if there is an occurrence of the mishap event, find the mishap spot and give therapeutic help to them as early as possible. The purpose of this study is to present a brief overview of numerous approaches that have been proposed for the prevention of traffic accidents, the detection of accidents based on different parameters, and the provision of medical assistance. The main intention of this paper is to find the accident spot at any place and intimidating it to alert the ambulance through the GPS and GSM networks. The MEMS, GSM, and GPS modem in the GPS-based car accident identification module are all coupled to the microcontroller. Cellular connections are established using Global System for Mobiles (GSM) technology. GPS is employed to track the location of the car.

**Keywords:** Embedded system, GPS Module, Accident Detection

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