A Major Project Report On

ARDUINO BASED ACCIDENT ALERT SYSTEM WITH GPS AND GSM

Submitted to

Jawaharlal Nehru Technological University, Hyderabad

In partial fulfillment of the requirement for

The award of degree of

BACHELOR OF TECHNOLOGY

In

ELECTRONICS & COMMUNICATION ENGINEERING

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2022-2023

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CERTIFICATE

This is to certify that the major project entitled **"ARDUINO BASED ACCIDENT ALERT SYSTEM WITH GPS AND GSM"** submitted to **JNTUH** is carried out by the following students of **IV B. Tech** in the partial fulfillment of requirement for the award of the B. Tech degree in **Electronics and Communication Engineering** during the academic year **2022-2023**.

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ABSTRACT

The Arduino based vehicle accident alert system presented in this project utilizes GPS, GSM, and an accelerometer to detect and report accidents effectively. The system's accelerometer accurately senses sudden changes in vehicle axes, triggering the GSM module to send alert messages to designated mobile phones. These messages provide crucial information such as the accident location, derived from GPS coordinates, and the vehicle's speed. The successful implementation of the system showcases its potential to significantly enhance road safety by enabling swift and precise accident reporting, facilitating prompt emergency response, and potentially reducing the severity of injuries or damages. The system proves to be a reliable and efficient tool for improving accident management and creating safer roadways. Future enhancements can include integrating additional sensors for comprehensive accident detection, incorporating advanced analytics algorithms for proactive accident prevention, and exploring collaborations with insurance companies and smart city infrastructure.

Overall, the Arduino based accident alert system with GPS and GSM presents a promising approach to improving road safety by enabling swift and accurate accident reporting, facilitating timely interventions, and contributing to the development of smarter and safer transportation systems.

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