VISVESVARAYATECHNOLOGICALUNIVERSITY

"Jnana Sangama" Belagavi –590018

PROJECT REPORT
on
"VEHICLE ACCIDENT DETECTION USING GPS AND GSM"

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING IN
ELECTRONICS & COMMUNICATION ENGINEERING

Submitted

By

ANKITA S N	**4AL19EC017**
BHAVYA Y R	**4AL19EC022**
J V RASHMITA	**4AL19EC036**

Under the Guidance
of
Dr. Roshan Shetty
Assistant Professor
Department of Electronics and Communication Engineering

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
A+, Accredited by NAAC & NBA (ECE & CSE)
Shobhavana Campus, Mijar - 574225
2022 - 2023

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
A+, Accredited by NAAC & NBA (ECE & CSE)

MOODBIDRI – 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "**VEHICLE ACCIDENT DETECTION USING GPS AND GSM**" *is a bonafide work carried out by*
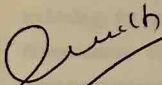
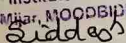|	
ANKITA S N	**4AL19EC017**
BHAVYA Y R	**4AL19EC022**
J V RASHMITA	**4AL19EC036**

in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2022–2023. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.
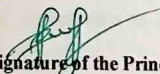
H.O.D.
Dept. Of Electronics & Communication
Alva' · Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Signature of the Guide   **Signature of the H.O.D**   **Signature of the Principal**

Dr. Roshan Shetty   **Dr. Siddesh G K**   **Dr. Peter Fernandes**

PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K

EXTERNAL VIVA

Name of the Examiners   Signature with date

1. Dr. SIDDESH. GK   Siddesh 26·5·23

2. Sujit. S Pai   26|5|23.

ABSTRACT

Vehicle accidents are a significant concern, causing numerous injuries and fatalities worldwide. Rapid detection and response to accidents can significantly reduce the severity of injuries and save lives. This abstract presents a vehicle accident detection system that utilizes GPS (Global Positioning System) and GSM (Global System for Mobile Communications) technologies to promptly detect accidents and alert emergency services.

The proposed system consists of several key components, including an Arduino board, GPS module, GSM module, and shock/vibration sensor. The Arduino board acts as the central processing unit, receiving data from the GPS module to determine the vehicle's precise location. In the event of a sudden change or abnormal vibration, the shock/vibration sensor triggers the accident detection process.

Once an accident is detected, the system activates the GSM module to establish communication with the GSM network. The GSM module sends SMS alerts or notifications to pre-defined emergency contacts, providing them with critical information such as the accident location coordinates and timestamp. This enables emergency services to respond quickly and efficiently.

The system's effectiveness lies in its ability to accurately detect accidents, leveraging GPS technology for precise location determination and GSM communication for immediate alert dissemination. By minimizing response times, the proposed system aims to enhance emergency services' capabilities and improve accident outcomes.

Through the integration of GPS and GSM technologies, this vehicle accident detection system offers a reliable and efficient solution for real-time accident detection and notification. The system's successful implementation has the potential to greatly reduce the impact of accidents, ultimately saving lives and mitigating the severity of injuries.