

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
Jnanasangama, Macche, Santibastwada Road Belagavi-590018, Karnataka



A
BE MINI-PROJECT (19EC6DCMPR) REPORT
On
car safety and air bag notification using IOT

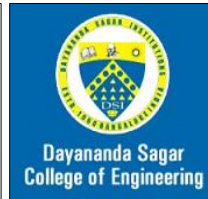
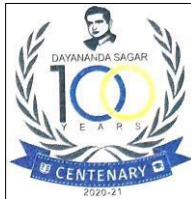
Submitted in partial fulfillment of the requirement for the degree of

Bachelor of Engineering
in
Electronics & Communications Engineering
by

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2022-23

Certificate

Certified that the mini-project work (**19EC6DCMPR**) entitled “**car safety and air bag notification**” carried out by **Kunal Kushwah** (USN-1DS20EC089), **Darshan k** (USN-1DS21EC406), **Harshith S** (USN-1DS21EC407), **Kishore V M** (USN-1DS21EC410) are bonafide students of the ECE Dept. of Dayananda Sagar College of Engineering, Bangaluru, Karnataka, India in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi, Karnataka for the VI Semester course during the academic year 2022-23. It is certified that all corrections / suggestions indicated for the mini-project work have been incorporated in the mini-report submitted to the ECE department. This Mini-Project report has been approved as it satisfies the academic requirement in respect of mini-project work prescribed for the said degree.

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Declaration

Certified that the mini-project work entitled, “**Car Safety And Car Bag Notification** “ with the course code **19EC6DCMPR** is a bonafide work that was carried out by ourselves in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engg. of the Visvesvaraya Technological University, Belagavi, Karnataka during the academic year 2022-23 for the VI Semester Autonomous Course. We, the students of the mini-project group/batch no. B4 do hereby declare that the entire mini-project has been done on our own & we have not copied or duplicated any other’s work. The results embedded in this mini-project report has not been submitted elsewhere for the award of any type of degree.

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Abstract

This project presents the design and implementation of a car safety system that integrates various components to enhance vehicle safety and emergency response. The system incorporates an ESP8266 microcontroller, flex sensor, GPS module, servo motor, and Blynk IoT platform. It is capable of detecting airbag deployment using the flex sensor, notifying the user, and automatically opening the car doors in emergency situations. The GPS module enables location tracking, and the Blynk IoT platform allows for remote monitoring and the sending of emergency messages. The system aims to improve overall safety and provide timely assistance in critical situations. By combining the capabilities of the ESP8266 microcontroller, flex sensor, GPS module, servo motor, and Blynk IoT platform, this car safety system offers a comprehensive solution for ensuring passenger well-being and rapid response during emergencies. The flex sensor accurately detects airbag deployment, triggering notifications to alert the user. In emergency situations, the car doors are automatically opened through the servo motor, allowing for quick exit or access to the vehicle. The GPS module provides real-time location tracking, which can be utilized for monitoring and assistance. The Blynk IoT platform enables seamless connectivity, facilitating remote monitoring and the transmission of emergency messages. This system represents a significant advancement in car safety technology, prioritizing the safety and security of vehicle occupants.

Keywords : esp. 8266,flex sensor ,ultra sonic sensor ,triggering, monitoring.

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Nomenclature and Acronyms

Abbreviations :

DSCE	Dayananda Sagar College of Engineering
ECE	Electronics & Communication Engineering
ESP	Embedded System on System
IEEE	Institute of Electrical & Electronics Engineers
IOT	Internet Of Things
IDE	Integrated Development Environmen
GPS	Global Positioning System
LCD	Liquid Crystal Display