



Automatic Emergency Exit in School Bus

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ABSTRACT

The objective of this project is to open the emergency exit for bus using vibration sensor.

- Emergency exit door is a valuable attachment to escape and rescue the passengers in the accident.
 - Emergency exit system for automobile using sensors, which means every vehicle has individual vibration sensor for send the signal and that open the emergency exit door in buses using motor and limit switch arrangement on both side of the bus.
 - If vehicle meet the accident, automatically release the door.
 - In future we have to implement a application for all the industries who are all using the transport system.
 - We have to implement some other safety measures.
 - The project is successfully designed and tested which provides accurate door open and efficient safety measures in case of emergencies.
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INTRODUCTION

- Nowadays, many parents does not have time to drop and pick their children, so major of children started travelling through school bus.
- Recently we all have noticed that few of the schools buses has no Emergency Exit. But, all buses should have Emergency exit.
- Even though there is an emergency exit, In panic situation children have no knowledge about, How to open the Emergency exit.
- So we have a solution to overcome it.

1.1Need for Automation:

Automation can be achieved through computers, hydraulics, pneumatics, and robotics. etc., of these sources, pneumatics forms an attractive medium for low-cost automation The automobile vehicle is being atomized for the following reasons.

- To achieve high safety
- To increase the efficiency of the vehicle
- To reduce the vehicle accident
- To reduce the fatigue of workers

1.2Scope of the Project:

The objective of this project is to open the emergency exit for bus using vibration sensor. Emergency exit door is a valuable attachment to escape and rescue the passengers in the accident. Emergency exit system for automobile using sensors, which means every vehicle has individual vibration sensor for send the signal and that open the emergency exit door in buses using motor and limit switch arrangement on both side of the bus. If vehicle meet the accident, automatically release the door.

II. Literature Survey

Edmund Shingirayi Maputi, JawaharlalNehru technological University, May2014, Mean while the bus structure has not developed in terms of Emergency exit tools to aid quick passenger progress in case of Emergency. This paper focuses on design on a bus Emergency exit tool. The 2013 Mahaboob Nagar bus tragedy that took the lives of 45Bengalureans is still hauntingus. The lives of the innocent passengers could have been saved if there were to be a good emergency exit option in the bus. Sadly, this tragedy was followed by many such tragedies across the country that claimed many lives. Despite this, no proper emergency exit is in place in most of the transport corporations/private operators. The ghastly incident moved a group of engineering students from Gopalan College of Engineering and Management to find aviable solution so that computers travelling in buses have as a exit option in emergency.

DESCRIPTION

Our project is based on high safety measures.

- By refering some research paper which have been published by expert, we have added IOT software system.
- So, emergency exit door is a valuable attachment to escape and rescue the passengers in accident.

Reference

- [1] Leonardo D’Errico, Fabio Franchi, Fabio Graziosi, Claudia Rinaldi, Francesco Tarquini Center of Excellence DEWS, University of L’Aquila, Via Vetoio, 1 67100, L’Aquila, Italy, “Design and implementation of a children safety system based on IoT technologies”.
- [2] Anwaar Al-Lawati, Shaikha Al-Jahdhami, Asma Al-Belushi, Dalal Al-Adawi, Medhat Awadalla and Dawood Al-Abri Department of Electrical and Computer Engineering, Sultan Qaboos University Box: 33, Al-Khod 123, Oman , “RFID-based System for School Children Transportation Safety Enhancement “, roceedings of the 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February, 2015

