

SMART DEAF AND BLIND PASSENGER VOICE ALERT SYSTEM IN PUBLIC AREA

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Abstract - Deaf and Blind people use public transportation regularly. In this project we present a solution to the main problems faced by Deaf and Blind passengers who use public transportation. The main reasons for the discomfort are unpredictable bus schedules have made it virtually impossible to estimate the time of arrival at the required destination and also, they unable to know the transportation schedules alert. This project presents an intelligent real time alarming using seismic wave. Input which transfers from the public(common) notice device. Receiver systems keep by deaf and blind passenger This system includes seismic wave generator. After the passenger reached the destination, transporting notice system transfer alert data to receiver of passenger

Key Words: ATMEGA328P microcontroller, LCD, Bluetooth module, battery, Vibration motor, Seismic wave generator, LED, Text voice generator.

1. INTRODUCTION

There are various levels of vision loss and hearing loss within each person, thus making the deaf blind population exclusive with many types of deaf blindness involved. For the reason that of this diversity, each deafblind person's requirements regarding communication, learning, and employment need to be referred based on their degree of dual-modality deficiency to improve their ability to live independently. Public transportation plays an important role in productivity, people participation and freedom for people who are visually impaired or blind since their visual deficiency does not allow them the comfort of making. Several times, the only option for those who are blind and visually impaired is the use of mass transportation services such as automobiles, trains, taxi services. These services are essential to travel freely to work, school, health care facilities, shopping, and many other places in their society. It can be difficult for a blind or visually impaired individual to use bus systems. There are many factors you can do to get extra comfortable using these systems. Our proposed project helps the deaf and blind people to know the proper details of public vehicle schedule

1.1 OBJECTIVE

This project presents an intelligent real time alarming using seismic wave. Input which transfers from the

public(common) notice device. Receiver systems keep by deaf and blind passenger This system includes seismic wave generator. After the passenger reached the destination, transporting notice system transfer alert data to receiver of passenger. The existing method was alarm in passenger mobile gets triggered when the passenger destination has been reached with help of an android facilitated with GSM and GPS for location identification. The disadvantages of the existing method are discomfort which are unpredictable bus schedules and have made it virtually impossible to estimate the time of arrival at the required destination. Also, they unable to know the transportation schedules alert

2. PROBLEM STATEMENT

It becomes a challenge for farmers to keep their plants healthy and viable. Also, it is hard to maintain a field with proper moisture content during insufficient supply of water. Considering this situation, it is necessary to implement an automated irrigation system which will take care of larger fields as well as in-house gardens. This technology not only helps in increasing the productivity of crops but also updates the user with status of the plant. Therefore, it is a simple technique that provides a solution for watering a potted plant or crop with reduced human supervision.

3. PROPOSED SYSTEM

The main reasons for the discomfort of Blind and Deaf passengers are unpredictable bus schedules have made it virtually impossible to estimate the time of arrival at the required destination and also, they unable to know the transportation schedules alert. The existing system is alarm in passenger mobile when that particular passenger destination is been reached with help of an android facilitated with GSM and GPS for location identification. From this project, the deaf and blind passenger understands the public transportation schedules as like the normal 5 passenger. And know about the proper and full details of public transportation schedules

4. TECHNICAL BACKGROUND

4.1 HARDWARE DESCRIPTION

Input word text is given through the mobile app. Mobile app data is transmitted to control kit via Bluetooth module. This

received word is converted to voice signal by text to speech module, This voice signal is converted to vibration signal by seismic generator module, Finally this vibration signal is applied to vibration motor and communication is done by bone conduction method.

4.2 SOFTWARE DESCRIPTION

This system is designed using Proteus software which is a free software platform. Here we can find these sensors and can also install sensor libraries. These sensors are connected to a microcontroller and can also be simulated.

4.2.1 EXPERIMENTAL RESULTS

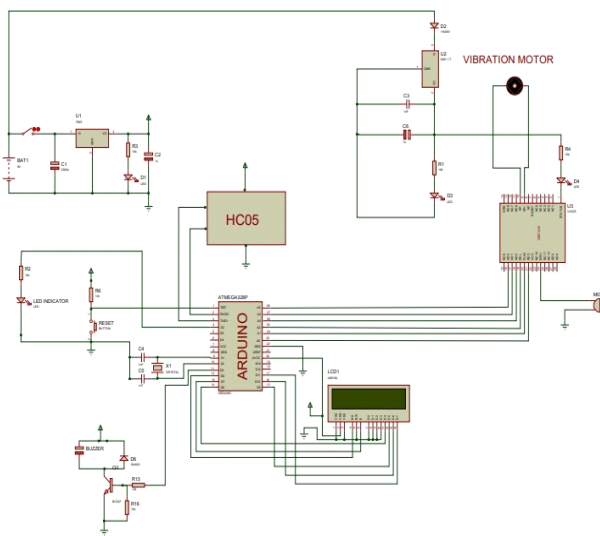


Fig 1 - Circuit Design

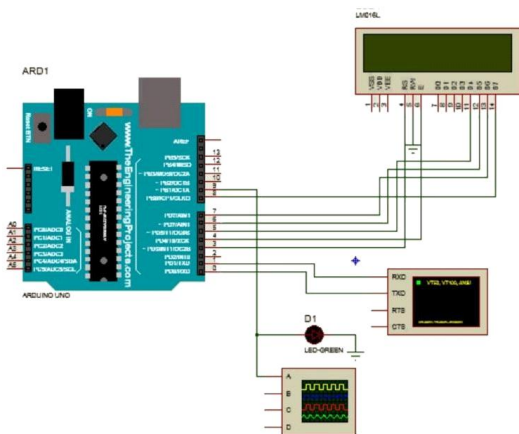


Fig 2 - LCD displaying input Text

By simulating the above circuit in Proteus software, the amount of moisture content, pH values are determined by using the respective sensors. With the help of the rain sensor, the moisture condition of the soil will be determined. As per the program when the soil is wet, the water pump will be turned off and in dry condition pump will be turned on. And

the collected data will be sent to the cloud platform via Wi-Fi module and the notifications will be sent to the respective user.

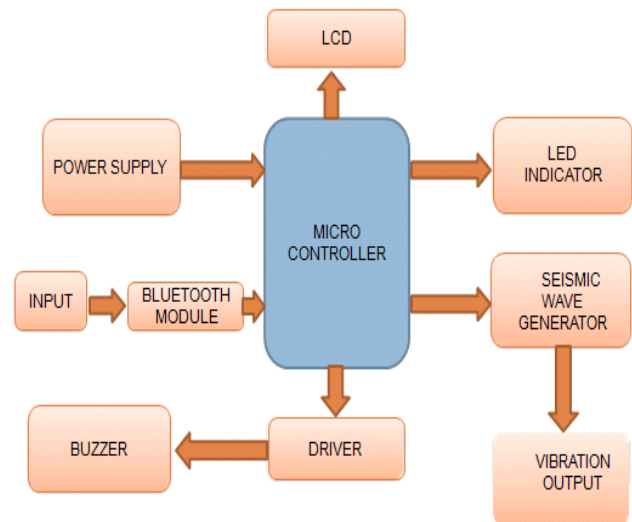


Fig 3 - LCD display

5. CONCLUSIONS

For many years, the seismic refraction method has been used in a variety of applications, such as geotechnical, environmental, groundwater, archeologically studies, as well as for the computation of static corrections in the reflection data processing. Now seismic waves can be used as a communication medium for deaf and blind people. We developed a smart deaf and blind passenger voice alert system using seismic waves. With this system, deaf and blind people can easily transport. They can understand the public transport schedules as like normal passengers. It is an intelligent real- time alarm using seismic wave vibration

6. FUTURE SCOPE

For many years, the seismic refraction method has been used in a variety of applications, such as geotechnical, environmental, groundwater, archeologically studies, as well as for the computation of static corrections in the reflection data processing. Now seismic waves can be used as a communication medium for deaf and blind people. We developed a smart deaf and blind passenger voice alert system using seismic waves. With this system, deaf and blind people can easily transport. They can understand the public transport schedules as like normal passengers. It is an intelligent real- time alarm using seismic wave vibration.

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