



Automatic Safety Platform For Handicap People Using Arduino

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ABSTRACT - Now a days, public safety plays a major role in humans' life, it can be achieved by developing technology through making everything automation. Smart Railway Platform (SRP) is an automation technique used to minimize the accidents, which is occur due to more crowd in overhead bridges, elevators and others modes. The main reason for the accidents is poor construction quality, heavy crowd and climatic conditions. Now a day, people are violating the Railway rules by crossing the Railway tracks in a risky manner. It takes less time to cross the tracks, but it is more dangerous to our life. To convert this into a safe manner, we came up with an idea that is sliding platform, which is fixed under the main platform. The sliding platform is working with an IR Sensor, when it detects the train the sliding platform is moving with a motor, which is fixed under the main platform. The system is controlled by Arduino and motor is operated by a Relay Circuit Board. To prevent the failure the total system, it can be controlled by the station master. It is more helpful especially for disabled persons to cross the tracks on their own without the help of others. It may leads to have a new generation platform to our future.

INDEX TERMS – Smart Railway Platform, Handicap People, Heavy Crowd, Arduino etc.

I. INTRODUCTION

The Indian railway has one of the largest railway Network in the world. A railway platform is an alongside a railway track providing convenient access to trains. Stations are next to a railway line, or they are the terminus for a route. A railway station is a facility that has railway tracks or lines for trains to carry passengers or goods from one place to another. people are present in large crowds there the railway station is an interesting place that is bustling with excitement and activities. Railway is the most economical medium of travelling for middle class peoples. most railway platform are having numerous Platform are having numerous platforms. Large staircase. Not convenient for physically challenged peoples. A Railway station or a railroad station and often shortened to just station, is a railway facility where trains regularly stop to load or unload passengers and freight /goods. To enable the trains on a single line track to cross from opposite directions. To enable the following express trains to overtake. For taking diesel or coal and water for locomotives. For detaching engines and running staff. For detaching or attaching of compartment and wagons. For sorting of bogies to form new trains, housing of locomotive in Locosheds.

II. PROBLEM STATEMENT

There are different problems that common public is facing while coming to railway station.

1)Huge Rush

2)Large Staircase.

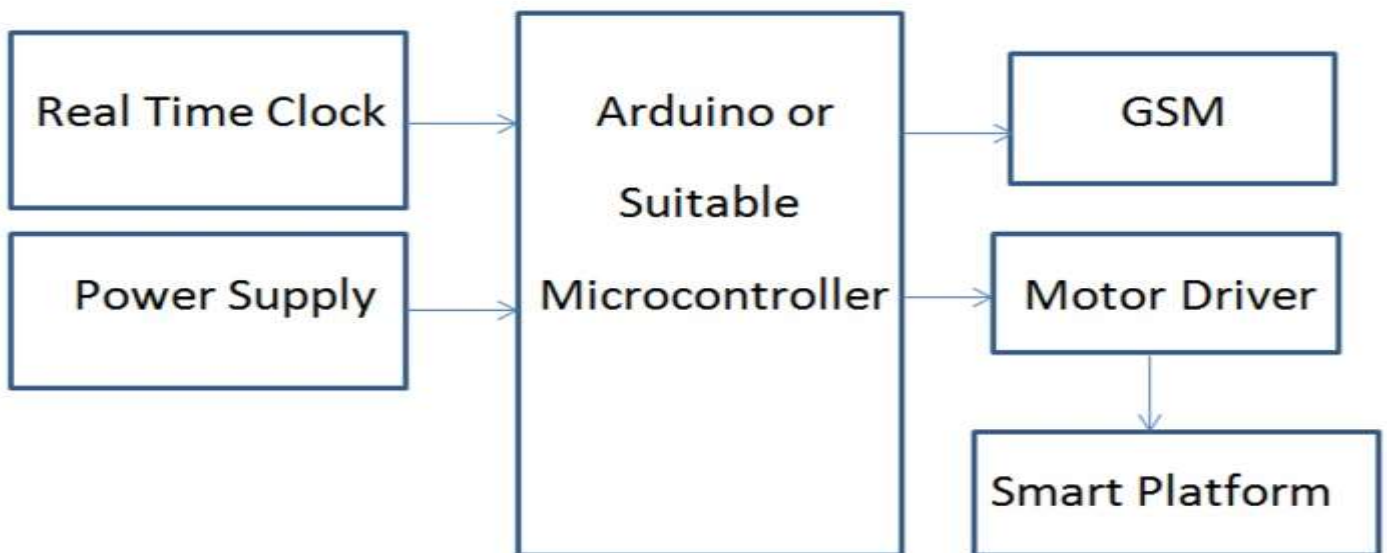
So common handicap people avoid journey by train although it is economical due to these problems.

Pregnant women are also facing same problem.

III. LITERATURE SURVEY

In this system user send signal to arduino board by using an android application and a Wireless module connected to that arduino board receives these signal and further sent to arduino for controlling of smart appliances using relay board. Arduino device is used as the controlling hub for this system. To perform the operations "ON" and "OFF" we use the relays. This system is useful for the people who could not move frequently from one place to another for the controlling of home appliances. This system focuses on the hand gesture recognition algorithm and its corresponding UI.

IV . BLOCK DIAGRAM



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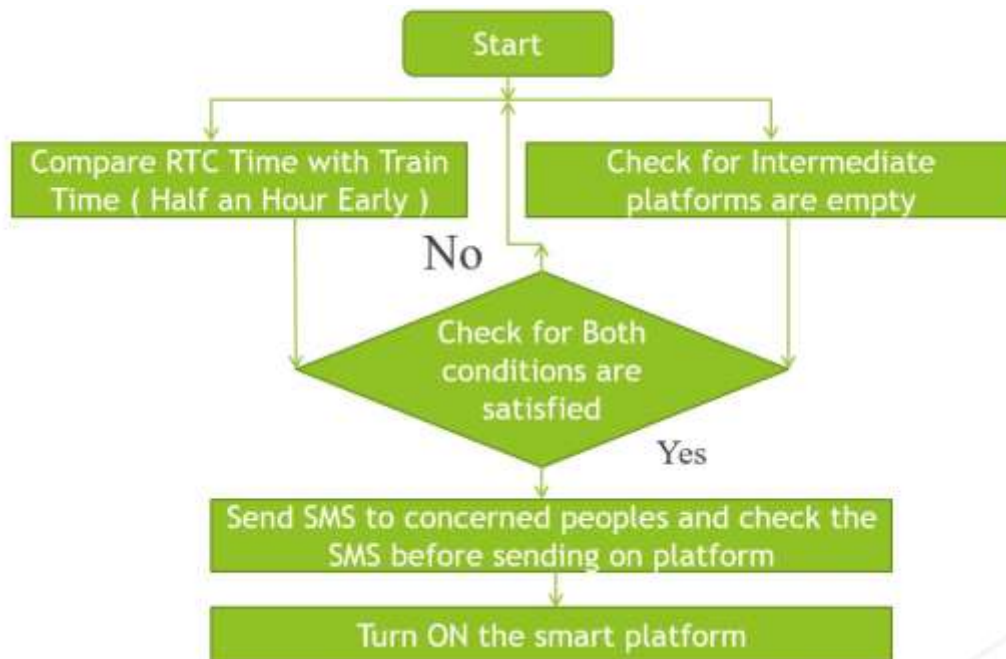
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V. WORKING PRINCIPLE

There must be some system so that handicapped people will get walkway at the platform. So such peoples will not worry about these problems. Such peoples are afraid during the time of peak hours at railway stations.

VI. IMPLEMENTATION



VII. CONCLUSIONS

With this technique railway travelling can be made very convenient for physically challenged peoples.

VIII. REFERENCES

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IX. ADVANTAGES

- Easy for handicapped and aged peoples to use railway facilities.
- Less stress to carry luggage.
- This system can be used by Hamals so their load can also be minimized.
- More Profit can be generated by railways.
- Reduce traffic at the staircase.