

# Automated Footbridge Across Platform At Railway Station

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**Abstract**—The current railway systems in India are not automated and are fully man-made. In railway stations generally we use bridges. It is very difficult for the elderly persons or handicapped persons to use the bridge. This project finds a good solution. Mainly the motion of a train is checked by sensor, this is used for automatically close/open the platform. We made this device with the help of IR Sensors and Microcontroller. The objective of our project is to reduce the power consumption taking place due to installation of escalators and elevators. This also time saving much more than the other remaining techniques. as per the overall old system which is given below (escalators & bridges) are used for crossing platforms from one to another platform.

**Keywords:**- Footbridge, Traffic Signals, IR sensors, RFID Reader

## I. INTRODUCTION

Indian railway network is the one of the biggest rail networks in the world. Railways are recognized as one of the safest modes of mass transportation and safety has been recognized as the key issue for the railway network. To make it a safe and reliable System is an enormous challenge. One of the few drawbacks are the unavoidable Platform crossings and the chances of mishap of the Indian Railways and the one of the Major issues of deaths occurring due to accidents. The proposed system uses sensor for opening and closing of bridges. It also confirms the presence of the train using a sensor which is placed at a certain distance away from the platform. When persons try to cross platform by avoiding the over bridge there is chance for the accidents. This can be avoided by using this technique and very helpful for disabled person also.

## II. LITERATURE REVIEW

By design the Railway Track Pedestrian Crossing between Platforms we can reduce the difficulty of the senior residents or handicapped persons to use the bridge. Nowadays bridges are used for crossing the platform.

This project is used for automatically close or opens the mobile platforms in the trains. Normally the mobile platform connects the two platforms through which the passenger can walk on the platform to reach on the next platform sensors are placed on the two sides of track [1].

It has introduced in big cities many trains are travels on tracks and speed of this trains are very fast. Sometime two trains are on same track in opposite direction or collision of train is occurred it caused accidents so that's why to avoid this types of accidents This project identifies the status of each train using IR transceivers and informs it to microcontroller after that microcontroller automatically trip the supply of train and train will stop. They have also implied the bridge over track by means easy for edged persons and disabled peoples [2]. It has introduced automatically close or open the mobile platforms in between the track trains. In current scenario the platform connects the two platforms through which the passenger can walk on the platform to reach on the next platform. The main objective of this paper is to avoid accidents mainly caused by crossing the railway track to go to other platform also makes physically disabled persons to also cross the platform easier. This system can be modified as fully automated instead of climbing the staircase, this efficient method will be more compact for reaching the particular destination at exact time and also for crossing the suitable platform. The opening and closing of the mobile bridge is will operated by the microcontroller with the help of stepper motor, the microcontroller will sense the presence of train by using sensor mainly the tracking of a train is sensed by sensor, this is used for automatically close/open the platform[3].

Today the cheapest mode of transportation is railway but now no. of accident of railway are increasing due to careless railway crossing. Careless in operations and lack of knowledge of workers are main reason of this, therefore we are trying to find solution of this problem. This paper gives new smart railway track mainly for helping physically disabled and aged persons. This railway track is automatically works in railway platform. Normally two platforms are connected by mobile platforms through which passenger can walk. We placed two sensors at both sides of track. With the help of sensors, we are trying to automatic control of railway gates. When train arrive first sensor the mobile platform will be automatically close and train go through track and when train leaving second sensor the mobile platform will automatically get open. To sense the presence of train we are using microcontroller. By sensing the train on one path we are giving pulses to the stepper motor to open or close the platform [4].

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This certificate is presented to  
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