PREVENTION OF RAILWAY ACCIDENTS USING ARDUINO-BASED SAFETY SYSTEM

Abstract:

This article outlines a design strategy for an Arduino-based safety system to prevent railway accidents. When a train is 500 meters away from an object (a person or an animal), this railway accident prevention safety system commands the person or animal if it is on the track. In this system, a high-frequency sound wave is transmitted by an ultrasonic sensor, which then waits for the sound to return before calculating the distance based on the required amount of time. In order to alert people to the impending arrival of a train, an ultrasonic sensor works by scanning for and identifying the vehicle. It then sends a signal to a buzzer to generate an alarm on the railway track.

Keywords – Arduino, Ultrasonic Sensor, Buzzer, DC.

Servomotor, LED Lights.

CONCLUSION:

Overall, the Arduino-based safety system demonstrates the potential for technology-driven solutions to enhance railway safety by proactively identifying and addressing potential hazards on the track, ultimately contributing to the prevention of accidents and the protection of lives.

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