

Wireless Controlled Distribution Transformer Load Management System

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Abstract:- The aim of this application is to reduce the manual effort needed to manage transactions in a company. Vehicle Management System has three types of monitoring. Goods loading, goods height and persons in goods garage. Notification will send through wireless network to Users. Application provides an interface to users to view the details like the Trans Vehicle details, goods loading and height of goods, Details in Daily Reports

Keywords: Load cell Sensor ,IR Sensor,PIRSensor,LCD display,IOT Module.

INTRODUCTION:

Intelligent Transportation Systems (ITS) is the use of Information Technology (IT), sensors and communications technologies for surface transport applications - though road transport applications vastly predominate. Road and other infrastructure building is expensive and environmentally unfriendly; we can make better use of the civil infrastructure by using a broad range of electronic technologies, making transportation systems safe, e client, reliable and environmentally friendly, without implementing new physical infrastructure. ITS cuts across disciplines such as transportation, engineering, telecommunications, computer science, finance, electronic commerce and automotive manufacturing. Use of wireless/radio mobile communications and satellite positioning systems are particularly important.

PROPOSED SYSTEM:

Our proposed system provides effective monitoring and protection of power transformer by measuring it oil level, oil quality, temperature and operating voltage without involving human intervention.. In this project we are going monitoring the goods using sensors and wireless network. Here we are going monitoring goods loading and height management using sensors node. In this load. If the load exit limited means it will alert through buzzer and IOT. IR sensor is used to measure the Arduino mega controller is used to control all the

sensors. Here load cell used to monitor When four diodes are connected the circuit is called as bridge rectifier. The input to the circuit is applied to the diagonally opposite corners of the network, and the output is taken good height and PIR sensor is used check from the remaining two corners. person movement in goods garage area. andalso it will not to start the engine. It will permit Let us assume that the transformer is working properly and there is a positive potential, at once it will reach permitted conditions Every details has through IOT App.

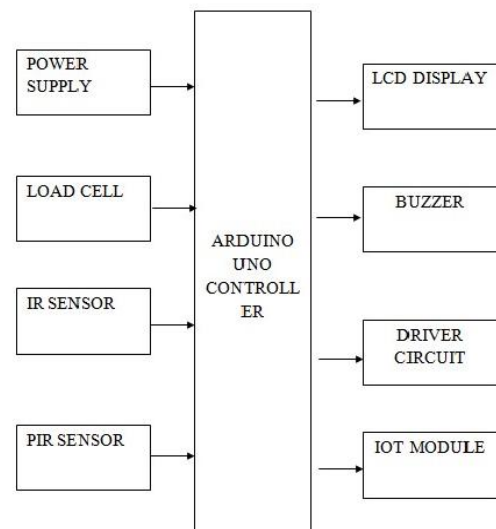
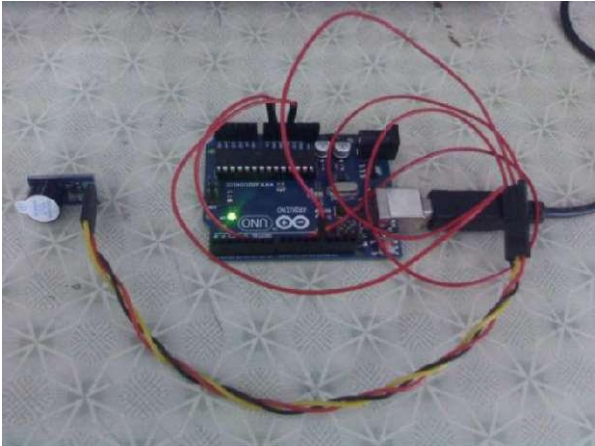


Fig (1) Block Diagram of Monitoring system

Level for all been received point A and a negative potential at point B. the positive potential at point A will forward bias D3 and reverse bias D4. A load cell is a type of transducer, specifically a force transducer. It converts a force such as tension, compression, pressure, or torque into an electrical signal that can be measured and standardized. As the force applied to the load cell increases, the electrical signal changes proportionally. The most common types of load cell used are hydraulic, pneumatic, and strain gauge.

WORKING:

The potential transformer will step down the



Fig(2) Circuit

power supply voltage (0-230V) to (0-6V) level. Then the secondary of the potential transformer will be connected to the precision rectifier,

RESULT:

The sample sketch above is a blink which is which is constructed with the help of op-amp. The advantages of using precision rectifier are it will give peak voltage output as DC, rest of the circuits will give only RMS output..also applicable for LEDs. The output is the turning on and off of the buzzer every other second. The picture below shows the setup of your module and Arduino.

CONCLUSION:

The goods monitoring system provides a proper notification system about the good level (load capacity, load height and persons in load place) in the vehicle and also buzzer is used to alert. The driver can make a false statement about the goods level to the owner and can gain extra money. This scenario can be changed by the notification system. The system helps the owner to have the knowledge of goods level in vehicle and the person of the vehicle load area at regular interval of time. It helps to know the honesty of the driver to the owner and also can save the money. This project goods monitoring system in vehicle represents the notification to the mobile numbers. The proposed goods monitoring system can track the load level in the vehicle and also the alert the information of the vehicle and sends the notification to the owner. This made the project more user-friendly and reliable. The proposed method can be highly beneficial for the automotive industry.

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