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MOVABLE ROAD DIVIDER FOR VEHICULAR TRAFFIC CONTROL WITH MONITORING OVER IoT

1. Mrs G .Anitha Chowdary (Associate professor)

2. N. Ganesh

3. M. Venu

4.M. Ranjith Kumar

(2,3&4-Students of Btech, ECE Department -Tkr college of engineering and Technology)

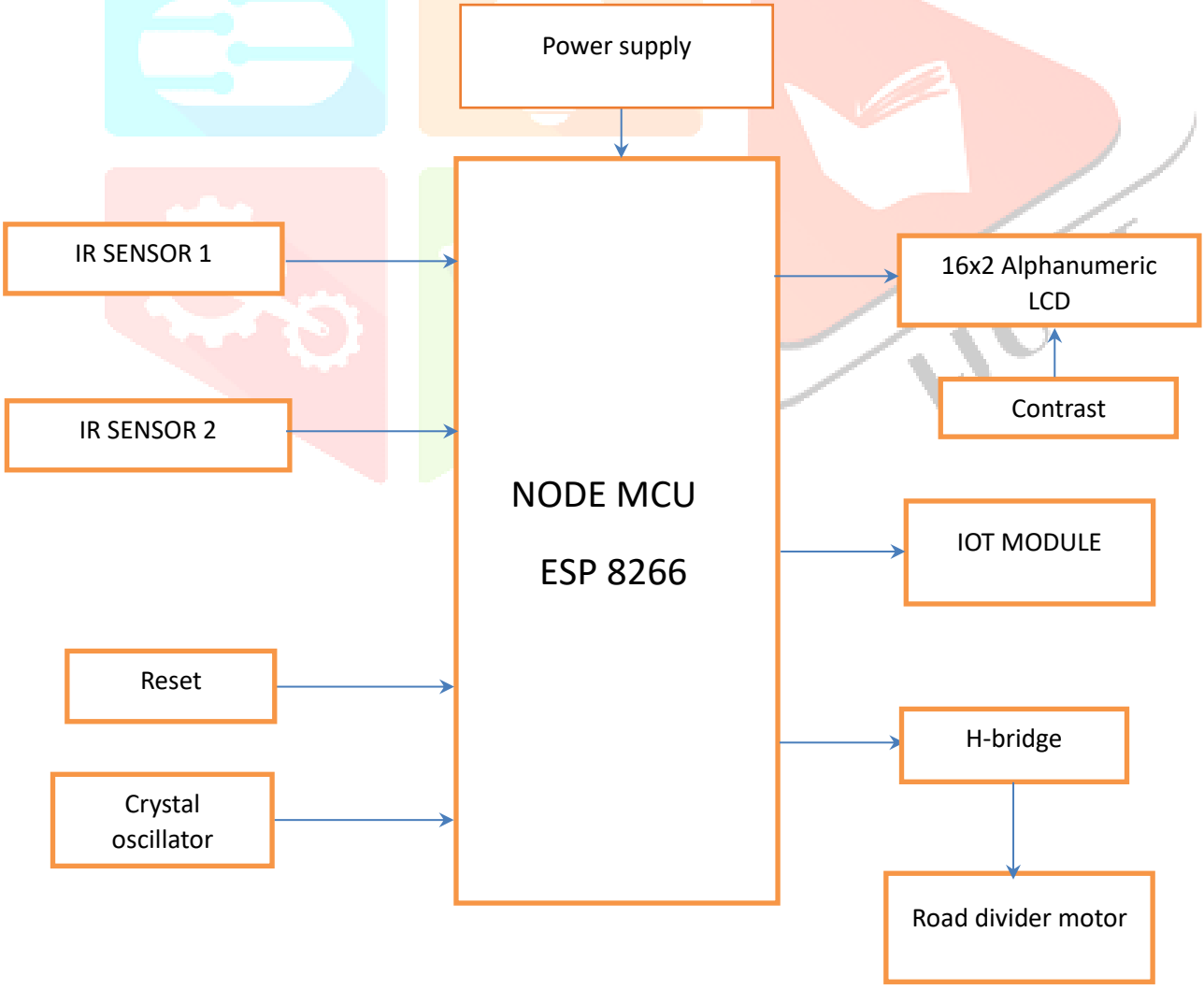
INTRODUCTION

- Now a days traffic is increasing day by day especially in major cities like Hyderabad there are many difficulties which are arising while controlling traffic.
- Here in this project we came up with a solution which solves a type of traffic issue.
- In this project we design a movable road divider which moves depending on the flow of traffic.The iot will be connected with the each and every part of traffic such as roads, dividers with the help of infrared sensors.
- In many situations we see that there will be huge traffic on one side of divider of a road and there will be no traffic on the other side,in this kind of situations it is possible to control the divider position automatically which reduces the traffic problems

ABSTRACT

- Divider is generically used for dividing the Road for ongoing and incoming traffic.This helps keeping the flow of traffic; generally there is equal number of lanes for both ongoing and incoming traffic.
- The problem with Static Road Dividers is that the number of lanes on either side of the road is fixed. Since the resources are limited and population as well as number of cars per family is increasing, there is significant increase in number of cars on roads. This calls for better utilization of existing resources like number of lanes available.
- Our aim is to formulate a mechanism of automated road divider that can shift lanes, so that we can have number of lanes in the direction of the rush. The cumulative impact of the time and fuel that can be saved by adding even one extra lane to the direction of the rush will be significant.so that we can have a smarter city traffic all over the city.

BLOCK DIAGRAM



LITERATURE SURVEY

- A study was conducted on Western express road close to Goregaon, Mumbai, in Reference [1],a 10 lane road was chosen once nothing the congestion points.
- The western express highway was so selected to understand the current traffic scenario for long distance.
- A survey was carried out for a span of 7.00 am to 9.00 pm ,data collected from the survey was no. of vehicle passing a point, speed of vehicle and concluded by saying speed of the vehicle reduces significantly during the peak hours

EXISTING SYSTEM

Road zippers, also known as barrier transfer machines, are measuring vehicles that often convey materials across lanes of traffic, much like a Jersey wall. They serve to reduce congestion during peak hours. concisely when the building work is being done in several regions. Zipper lanes are typically referred to be lanes that are created by the tools. The benefit of these systems is that they guide light above solid systems on top of different management systems like coned. A useful barrier prevents the accident, causing the traveller to cross over into the opposing lane of traffic. The lanes' width is significantly reduced while utilising the current method, which is a drawback.

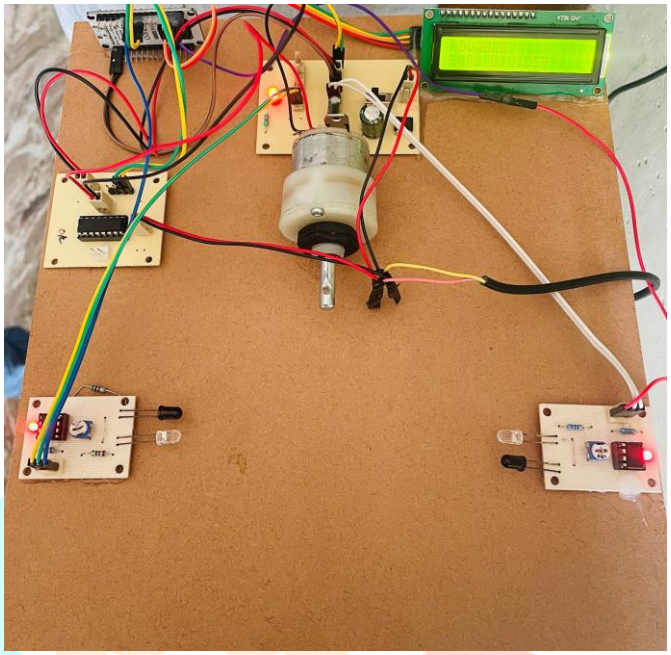
PROPOSED SYSTEM

This autonomous movable road divider system uses a system made up of a node MCU (Micro Controller Unit), an IR (InfraRed) sensor used to measure traffic density in this example, and both conventional and extended dividers. We set the machine to function automatically rather than utilising it and operating it manually. With the help of this suggested intelligent system, we may be able to get rid of our current reliance on traffic and guide mediation so that smart traffic may be employed on all sides of the city. For the issues the public faces, a mobile road divider provides the ideal solution. Most of the time, IOT can make it achievable. The IR sensors in this system are sensitive to traffic density and are used to supply digital data to the node MCU and Wi-Fi module. This method aids in improved traffic networking and traffic reduction.

RESULT

The analysis is carried out by considering two junctions in Hyderabad city between two points such as Uppal and Ameerpet it is found through the survey that the route between the two points is always conjested.to over come the widening or narrowing of road is required based on the traffic conditions. Thus the project will be helpful in such routs. The implementation of proposed work is described as follows device is connected to divider through device which is connected through IP has intensity is low divider stays in its position and traffic intensity is shown in cloud. If intensity is medium red light is signalled and

divider moves by some distance then traffic intensity is shown in cloud if intensity high red light is signalled and divider moves by large distance then traffic intensity is shown cloud.



ADVANTAGES

- Simple driving circuit
- Efficient vehicle management when sensors detect
- High sensitivity
- Quick response
- Stable performance and extended life
- Efficient and inexpensive design
- Low power consumption • Easily operable

APPLICATIONS

- This technique can be used in busy urban settings.
- Shopping centers employ this method

CONCLUSION

By using sensors to tally the quantity vehicles, the mobile road divider will be able tosuccessfully move the smart divider. To put it simply, the movable divider can control and alleviate traffic congestion. This suggests that the program provides a free and guaranteedambulance system that will not fail to arrive at its destination delays and save lives. It also suggested that the program reduce travel times at rush hour and conserve time and fuel.

FUTURE SCOPE

It is simple to reduce the congestion of traffic caused by jams. Through the internet, traffic jams can be tracked, giving users access while on the go. It will compensate for the zipper machine's drawbacks. To prevent space wastage, this technique the ability to park cars at malls.

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