

SMART STREET LIGHT POST

PROJECT TEAM 1

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Abstract

The problem we face today in thrissur is accidents in roads. One of the reasons is lack of proper lighting and signals. To solve these problems the better idea is IoT connecting things around us with IoT .Which means connecting the whole streetlights with cloud network and enabling sensors which increases security, accuracy, quick maintenance, energy saving, reducing accidents, safety road system and lots more

PROBLEM:

If we count road accidents in thrissur it becomes a large number. Even though we can't control this.

Some of the major problems are

- **NIGHT DRIVING**

Lack of visibility makes hazards more difficult to see at night. Make sure that you are extra alert on the road at night, and use your full lights when on an abandoned road without streetlights.

- **Rain**

while you can't always avoid driving in the rain, the slippery, treacherous road conditions caused by heavy rains should be avoided when at all possible. If visibility is too low to drive or the roads seem particularly slick, you should pull over and wait until the storm passes.

- **Careless Crossings**

Anyone who has ever heard someone tell about hitting a deer knows that this is a big danger. For this reason, take extra caution when you see an animal crossing sign and always use your high beams when travelling in rural, woody areas where wild animals are common.

Road accidents in Thrissur Rural during year 2011 to 2015

Year	No. of accidents	Death	Total Injuries
2011	2759	347	3009
2012	2583	318	2853
2013	2523	308	2831
2014	2785	310	3037
2015	2888	324	3094

SOLUTION:

Replacing our ordinary posts with a smart post

- The smart post has a light sensor on it, which turns the light on when surrounding light goes dim. Which works in night times also rainy times.
- The microcontroller controls all functionalities and connects the post into cloud network having a unique id for every posts. So the accessing of damaged post and its maintenance can be done easily.
- A road cross signal button provided in posts which are nearer to the zebra line , which helps to turn the blue light on when someone crosses the road.
- There is an obstacle sensor which automatically turns on when post light on and when a vehicle pass through it the sensor senses and provide more brightness. Every posts are connected with network so the information's will pass continuously from one post to another.
- There are extra two warning buttons one button is to warn a local area if some animals are crossing road or some construction works going on road etc.. Another button to inform the server that the functional damage and other important messages like ambulance passing or flood etc. so to take a care.

- A solar cell placed on top of the post. We can also charge our phones when we needed.

Conclusion

Our projects main aim to reduce the accidents save citizens, provide more safety on crossing and more comfortable for school students, aged persons likewise to all beings. It's a continuously growing project more and more ideas will be added.