Garbage Monitoring, Transmission Line Fault & Theft Detection System

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Abstract: In this paper, three concepts are merged together that is the Garbage monitoring, transmission line fault and theft detection system. The traditional means of manually watching the wastage in waste bins could be a complicated, cumbersome process and utilizes more human effort, time and cost which is not compatible with the present day's technology in any way. This an advance method in which waste management is automated, this project based on garbage monitoring system is very innovative system which will help to keep the cities clean. Due to GSM technology is applied to measure, protect and control the distribution lines against various fault condition. It also detects power theft in every houses and industries for different methods of theft.This model reduces manual manipulation work and take a look at to realize thievery management

Index Terms – **Line Fault, GSM, Garbage Monitoring, Theft Detection.**

I. INTRODUCTION

A smart city enables the successful utilization of different resources and better standard of services to the citizens. To provide services such as Automatic Real Time control Based with exact date & time of Garbage Monitoring and control system For Analysis & control. Automatic Real Time control Based with exact date & time of Automatic Water Distribution & control System, Automatic Transformer Monitoring & controlling, Automatic Detection of Theft & Control System. Ecological and economic sufferable Cities is a new initiative established by the Advance systems, as an integral part of Local Government Policy, to help and motivate cities in developing countries to attain greater ecological and economic sustainability. The present scenario is very complicated over finding the faults and repairing it, so new technology is designed which will automatically find the fault over the transmission line, this will help us to provide with maintenance. This technology is also saved time and money over maintenance.

II. LITERATURE SURVEY

Garbage Monitoring System-Garbage may consist of the unwanted material left over from city, public area, college society, home etc. This project is related to the" Smart city" and based "Internet of Thing (IOT)". So, for smart life style, cleanliness is need, and cleanliness is beginning with garbage bin. The power transmission utilises now have the capability to remotely monitor certain mechanical and thermal characteristics of their overhead transmission line in real time. While electrical parameter such as line currents and bus voltages have routinely born measured and communicated. The open circuit and short circuit will be occurred due to over current, over voltage and under current, under voltage. Electricity theft is common problem in country where population is very high and use of electricity are ultimately tremendous. In India, every year there is very increasing no of electricity theft across domestic electricity connection as well as industrial electricity supply which results in loss of electricity company's energy and because of which we are facing the frequent problems of load shading in urban as well as rural areas so as to over come the need of electricity for whole state. The proposed system will be hidden in such meter and as soon as an attempt is made for the theft, it will send SMS to control unit of electricity board. They are unable to clean that waste in time. So, to reduce this, based on latest technology moving to smart bin. Up to now this method is not widely implemented in India. Presently we are using only old bins and compressor bin in our premises.
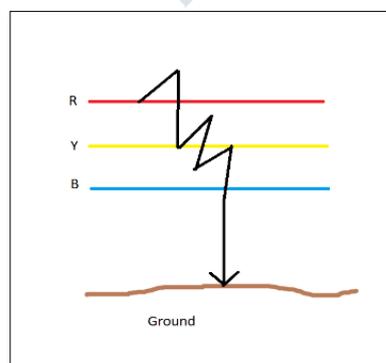
III. PROBLEM STATEMENT

Fig (1): Problem Identification.

Fig (2): Today's Scenario

IV. OBJECTIVE

Main Goals and Objectives of the System are:

1. It controls the Pollution.
2. It keeps the Environment clean.
3. It Prevent odour and dieses.
4. In our system only one person can control whole system.
5. At the exact time and date quickly detect the fault location.
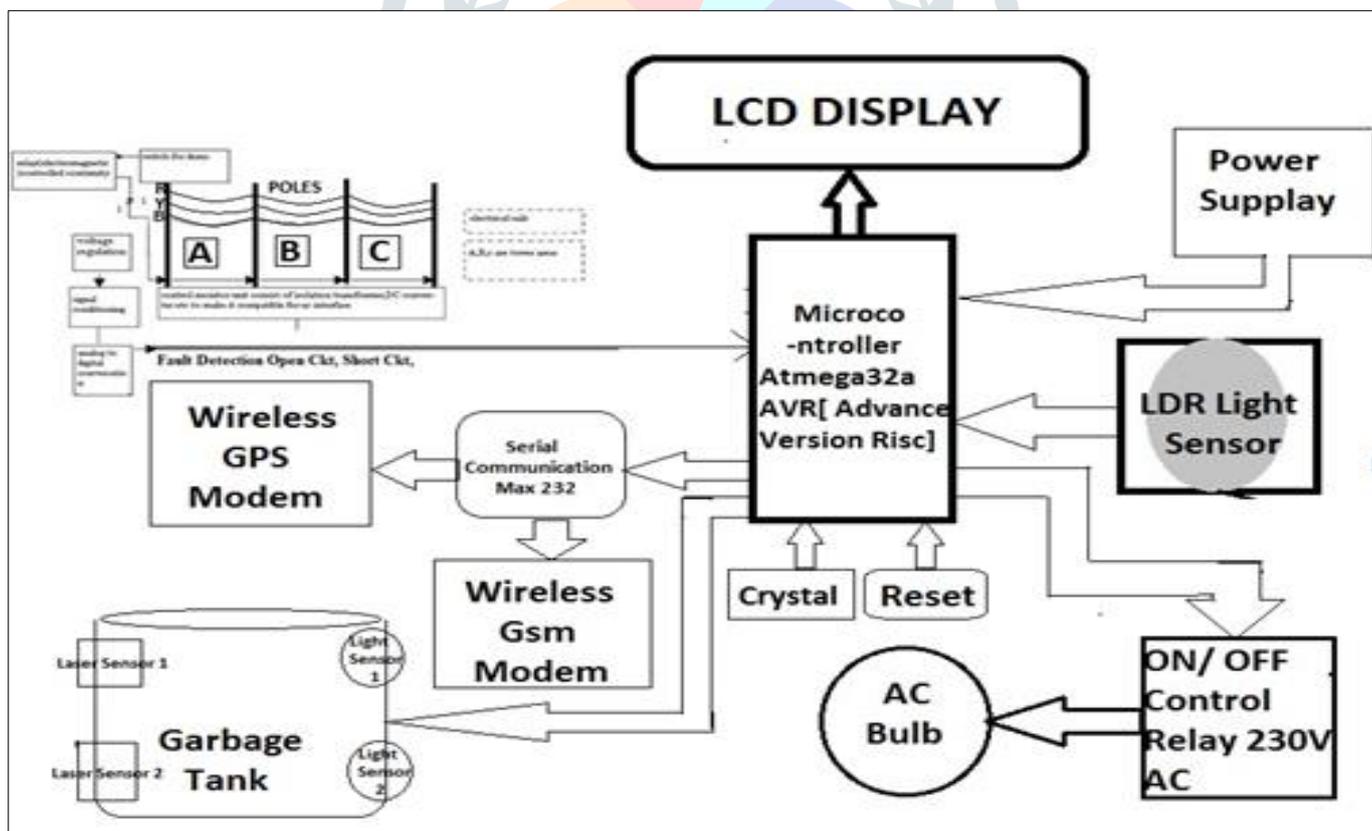
V. BLOCK DIAGARM

Fig (3): Block Diagram of Garbage Monitoring and Transmission Line Theft

VI. WORKING

Sensor detect the garbage quantity in dust bin, if garbage is full it cuts the LDR line and a signal is sent. Exact location and number of dust bin is sent to particular person. Similarly, whenever fault is occurred in transmission line, exact location of fault is sent through GSM. At the exact time and date quickly detect the fault detection therefore the system is time consuming. In our system only one person can control whole system. Its gives location due to installed GPS and sent message due to GSM. This whole process is done through microcontroller.

VII. PROTOTYPE HARDWARE MODULE

Fig (4): Project Prototype Model

VIII. RESULT

1   City Possible aims to build a path towards a sustainable urban future that uplifts all segments of the community.
2   A new approach to solving cities systemic problems.
3   Emissions of CO_2 and other harmful.
4   Time consuming system.
5   Getting information within the fraction of second.
6   As it reduces the pollution so, health problems are minimized in nearby areas

IX. CONCLUSION AND CONCLUSION

Conclusion:

In this project we expand a smart Garbage system and transmission system. It is more efficient and more reliable than old method. In old day the more manpower is required but using this system, less manpower. It also prevents road tragedy. The develop system which is explain in the paper can effectively save power by reducing the power consumption as per requirement. Because of sensor base system it is self-controlled and automated system. LDR detect faults and rectify easily, which is usually ignored in the conventional system. However, at the same time the system is also flexible. Safest way to save energy, eco-friendly, practical and cost-effective are some features is this smart system. Main drawbacks of this system are the initial cost and maintenance. However large-scale implementation of this proposed system will definitely reduce the overall cost of the project up to great extent. The project has scope in various other applications like for providing facility in bus shelters, parks and parking lots of shopping malls or market areas.

Future Scope:

Gandhi Nagar, Gujarat, in this city monitoring temperature, relative humidity and co2 has been successfully implemented and monitor as environment monitoring system. The proposed of smart city enabled environmental monitoring system compares well with the similar designs discussed in [1-3]. The sensor node has a lower power consumption of 4.99mW, apart from sensing temperature, humidity and CO_2; The reliability (valid data at the receiver's side) of the system is approximately 65% on a multi hopping mechanism whereas the single hopping ensures more than 99% reliability that could be improved and is left as a future work.

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