

MAXIMUM DEMAND METERING USING IOT

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ABSTRACT

The paper mainly works on IOT network. The conventional energy meter need to be converted into digital meters from electromagnetic meters, then meter reading will come faster. The KPTCL and customers can be made available with these meters. The information can be used by both the user and KPTCL provider for various purposes, like to check the tapering, the bill, when the meter is disconnected and connected within in the dye date. All this information will be displayed by using smart app. In this paper we will monitor the tampering i.e. seat tampering of meters and we read the meter bills that will be uploaded on the website using IOT devices and network. The paper aims at providing infrastructure of energy meters which can be used in smart city concept.

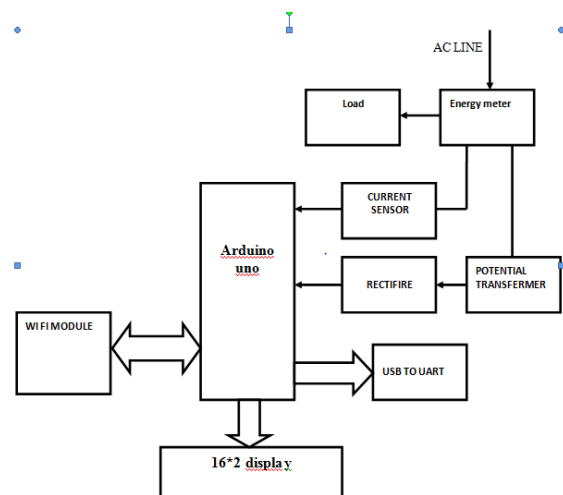
1.INTRODUCTION

We can see a person standing in front of our house from electricity board, whose duty is to read the energy meter and handover the bills to the owner of that house every month. This is nothing but meter reading. According to that reading we have to pay the bills. The main drawback of this system is that person has to go area by area and he has to read the meter of every house and handover the bills. Many

times errors like extra bills are paid are common errors. To overcome this drawback we have come up with an which will eliminate the third party between the consumer and service provider, even the errors will be overcome.

a)LITERATURE SURVEY: - Electricity losses in India during transmission and distribution are extremely high and vary between 30 to 45%. Wireless network based architecture is proposed in this paper, for monitoring and optimizing the electric transmission and distribution system in India. The system consists of multiple smart wireless transformer sensor node, and smart wireless consumer sensor node.

2.IMPLEMENTATION



3.WORKING

SENSOR WORKING :

HALL EFFECT SENSOR :(current sensor)This sensor interface with analog input pin of arduino, it receive change in current depend on consumer load, and it display to the LCD with unit of the current.

Potential Transformer : used for scale down the voltage from 230v and it feed to arduino analog pin to calculate the fluctuation of the voltage and display to the LCD display , **WIFI MODULE :** use to send the unit of voltage , current and unit price value to the customer and KPTCL.

4.APPLICATIONS

1. Meter can be used in industries for detecting the excess load .
2. Profit for electricity board as well as for consumer.
3. It can be easily implemented for domestic and irrigation purposes.
4. To avoid electricity theft.
5. Industrial control
6. Medical systems
7. Residential application

5.EXPECTED OUTCOME :

The project is mainly aims at providing overall infrastructure of the energy meter presently used for the smart city concept. The main improvement for the future is going to make energy meter readings, tampering identification providing to the users all is going to happen on Wifi internet.

6.CONCLUSION

In the era of smart city advancement, this project is concentrated on the connectivity and networking factor of the IOT. And the connect and disconnect of every meters on the on payment and non

payment that will be fast as compared to the present method.

7.REFERENCES

- [1] Devidas, A. R and Ramesh, M. V, “Wireless Smart Grid Design for Monitoring and Optimizing Electric Transmission in India”, 2010 Fourth International Conference on Sensor Technologies and Applications (SENSOR COMM). 637-640, 2010.
- [2] Shoeb S. Sheikh, “Design and Implementation of wireless Automatic Meter Reading System”, International journal of Engineering, Science and Technology, vol. 3,
- [3] Amit Jain and Mohnish Bagree, “A Prepaid Meter using mobile Communication”, International Journal of Engineering, Science and Technology, vol.3, No. 3, pp. 160-166, April 2011.
- [4] Koay .B. S., et’1, “ Design and Implementation on of a Bluetooth Energy Meter”, proceedings of the Joint 4th International Conference on information, Communication and Signal Processing.