FINAL YEAR PROJECT REPORT

(Digital Prepaid Energy Meter)

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Abstract

Now a day's power saving is one of our major concern and above all we should use our energy resources according to our needs we are trying to make this innovative project keeping in mind that electric power should be conserved and should not be used without any limit for this we have used an innovative idea which has been already used in mobile phones in this we are using a concept of recharging of our electricity meter first with a fixed amount. Means the amount should be paid first to the electricity department then you can use the electricity of that amount whom which you recharged your meter.

Once your energy meter is recharged you can now enjoy electricity at your home wherever the energy meter is used now the current and voltage consumption of your house is sensed with the help of the CT and PT then microcontroller calculate the power consumed per hour then according to kilowatt per hour the price of the units consumed is deducted from the net amount with which you have recharged your energy meter so now you are getting uninterrupted power supply until you have the balance in your energy meter when last 10 units are left in your energy meter the meter start giving warning to the user with the help of buzzer and when the balance is equivalent to zero the electricity of your home get disconnected automatically then you have to recharge your energy meter again so that the cycle goes on. .

Dedication

This Project is dedicated to our Dearest Parents, who give us such environment and every facility which is necessary in completing the degree of Electrical Engineering.

Giving us Education is their responsibility but giving such higher education is not their responsibility. So we say deepest and wholehearted Thanks to our Parents to encourage us at each and every step we take during our education.

Acknowledgements

“Such thanks I give

As near death to those that wish him live"

The satisfaction and euphoria that accompany the successful completion of any project would be incomplete without a mention of people who made it possible and whose constant guidance and encouragement crown all the efforts. This project was special because it was our FINAL YEAR project and we took a great interest while completing it. It was not only a technical endeavor but also the initiation of us, (the fresher), into the practical world.

First of all Thanks to ALLAH the Almighty who is the most Beneficial and the most Merciful. Then we are heartily grateful to ***Dr* Sajjad shami, *COD*** *Department of Electrical Engineering*, who open heartily agreed to our idea of developing this application.

We also extend our sincere vote of thanks to our project guide **Sir Nauman Ahmad** for his guidance and support throughout the completion of this Project.

We would also like to thank Department of Electrical Engineering for taking genuine interest in any queries we put up and promptly replying back. All their support and encouragement has carried us all through the project.

The exact task of documenting this report is the outcome of skilled guidance and fruitful suggestions of the many of persons mentioned above. This report, in particular, bears the imprints of many persons and is made by the precious suggestions and efficient supervision of many qualified person.

Last but not the least; we would like to thank our Parents, all friends and colleagues who directly or indirectly helped us in completion of the work

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Introduction

The present system of energy billing is error prone and also time and labor consuming. Errors get introduced at every stage of energy billing like errors with electro-mechanical meters, human errors while noting down the meter reading, and errors while processing the paid bills and the due bills. There are many cases where the bill is paid and then is shown as a due amount in the next bill. There is no proper way to know the consumer's maximum demand, usage details, losses in the lines, and power theft.

The purpose of this project is remote monitoring and control of the Domestic energy meter. This system enables Electrical Department to read the meter reading regularly without the person visiting to each home. This can be achieved by the use of Microcontroller unit that continuously monitors and recodes the energy meter reading in the (non-volatile) memory location. By this System we can also recharge the units using cards

Microcontroller based system continuously record the reading. This system can also disconnect the power supply when a unit approaches to zero.

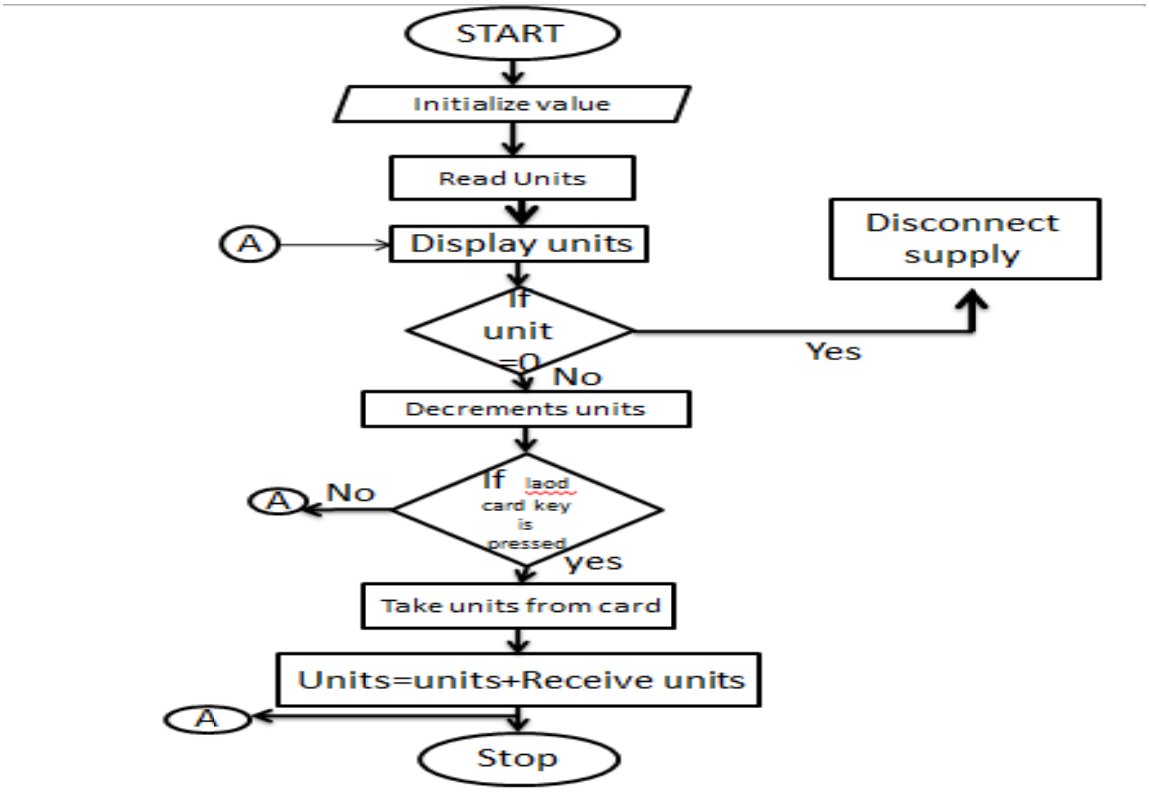

Fig 1-1 flow chart