Proposal for graduation project (2023-2024)
Project Title Implementation of a Cardless Smart Meter

Students

Supervisor(s)

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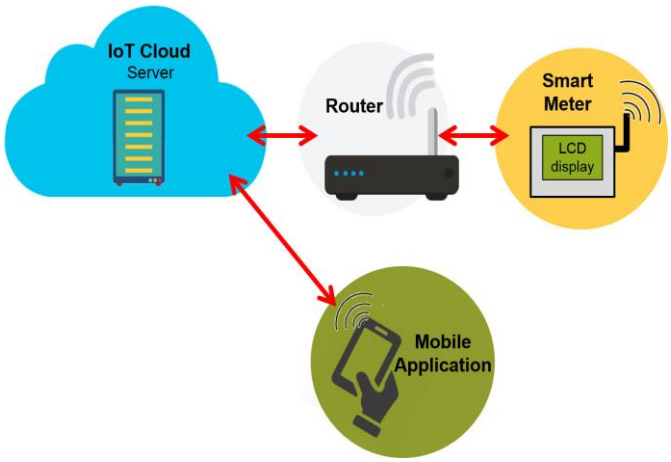
Abstract:

Poor metering and billing in developing countries has resulted in significant losses for users. Power theft is a major issue faced by utilities. The economy and the community living in those areas are both affected by the attempts by people to steal electric energy in different ways. We propose a method that is efficient in overcoming these problems, keeping in mind these facts. that will enable the power supply companies to detect theft, compute bills and monitor loads while preserving the consumer privacy.



The project aims at designing a cardless smart meter that is capable of calculating the power and energy consumed by different loads, and the concept of dynamic pricing and price limit can be used to shut down loads. Furthermore, the system will facilitate easy coordination between the electrical company and the consumer. A user-friendly interface that can be accessed wirelessly through Wi-Fi will be created for this purpose.

The objectives of the project include:

- To figure out how much energy the house uses.
- To calculate the accumulated cost of the consumed energy.
- To give the customer the most up-to-date cost information.
- To supply both the customer and the company with the electricity bill.
- Detecting electric power theft without human intervention.
- To decrease power consumption by turning off the least necessary loads in the house