

IOT based Energy Monitoring and Management with Focus on Energy Bill

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Abstract:

The project titled "Electrical Power Forecasting in IOT Environment using Artificial Neural Networks", emphasis on application of Internet of things in electrical power prediction and load management system. This project helps to know the future consumption, which would help the customer a consumption So to avoid all these problems, they are as follows power consumption and monitoring the loads. We proposed a wireless system for smart electricity meter and billing system using IOT (Internet of Things). Also we will use our project to monitor load power and energy. In addition, we use IOT to forecast the load by using Wi-Fi technology. We have some difficulty to know our consumption of electricity and also we can't predict the consumption of individual load. The company which gives us the electricity can't give us accurate report about the consumption and the reading of bill is not transparent. So we present a solution to solve this problem and make power consumption and bill transparent. We depend on IOT technology to monitor loads, predict future consumption and give a report on it. Power, temperature, humidity sensors are connected to Arduino to process the data and send it to the cloud. Data logs on to the cloud is used to train ANN forecasting model which is developed using MATLAB apps existing on the cloud. Forecasted output can be stored in the cloud or sent to the stack holder through twitter message.

