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(57) Abstract :

Energy is the essential utility needed. Thus, the management of energy use is a significant priority, as the enormous growth changes are sweeping the globe, and doing so is the best answer, beginning domestically. There are numerous difficulties in the existing home energy meter reading systems, such as construction problems, too little bandwidth, poor real-time, no fast two-way communication, etc. Therefore, based on wireless internet technology, a smart meter is suggested. An Arduino microcontroller and raspberry pi CPU are used for the suggested smart energy meters for house management. The voltage and current sensor detect the load consumed current and voltage and is sent to the microcontroller for the power consumption calculation. This number will be transmitted over the Internet to the central server to calculate the energy bill, and the same is shown regularly on a monitor at home. In case of energy bill payment failure or power theft, the central server may also reduce the power supply to the customer. The display of used energy sensitizes the user's quantity of energy and allows him to evaluate and decrease the energy they use. In addition, this technology allows equitable power control from the central server-side and reduces power outages to a minimum. The user may also be informed regularly through GSM about the energy usage with this smart energy meter. The method suggested also helps to identify power theft.

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