

GSM Based Smart Energy Meter Monitoring With Theft Detection

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Abstract: *The smart grid is a digital communication system that facilitates monitoring, control, and analysis of energy delivery networks. This paper proposes a smart energy meter for a prepaid recharge system and theft detection. The meter reading network is enabled by the integration of a microcontroller and GSM technology. The proposed system can provide information such as the amount of energy consumed or produced, as well as security services. This information can be incorporated into the existing energy management system of power organizations or associations, allowing for remote metering and accurate billing. Furthermore, the system can automatically detect power theft in households or industries and send alerts to both the power company and the consumer. This paper aims to reduce the illegal use of power and decrease the incidence of theft, which remains a persistent issue in the country's power usage*

Keywords: Prepaid System, Energy Meter, GSM, Arduino UNO, Theft Detection, Electricity Theft

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