

Smart Prepaid Meter using GSM

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Abstract: *With the growing demand for energy efficiency and transparent billing systems, prepaid energy meters provide an effective solution. This project focuses on developing a Prepaid Energy Meter Using GSM and Arduino, which allows consumers to monitor and manage electricity consumption in a prepaid manner. The system automatically deducts energy charges based on usage and notifies users via GSM communication.*

The system is equipped with advanced features such as auto cut-off, which disconnects power supply when the prepaid balance runs out, and power theft tracking, which detects and tracks instances of power theft. The system is built using cutting-edge technologies such as microcontrollers, wireless communication modules, and sensors, which enable real-time monitoring and control of electricity usage.

Traditional energy meters follow a postpaid system where consumers use electricity and pay the bill at the end of a billing cycle. This often leads to disputes, delays in payments, and energy wastage. A prepaid energy meter eliminates these issues by allowing users to purchase electricity in advance, similar to a prepaid mobile recharge system.

Keywords: Arduino; Energy Meter

