

# Power Theft Identifier with GSM Announcement

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**Abstract:** Generation, transmission and distribution of electrical energy involve many operational losses. Whereas, losses implicated in generation can be technically defined, but transmission and distribution losses cannot be precisely quantified with the sending end information. Electrical power theft detection system is used to detect an unauthorized tapping on distribution lines. Implementation area of this system is a distribution network of electrical power supply system. Surviving systems are not able to identify the exact location of tapping. This system actually finds out on which electrical line there is a tapping. This is a real time system. Wireless data transmission and receiving technique is used. This will provide an additional facility of wireless meter reading with the same technique and in same cost. This will protect distribution network from power theft done by tapping, meter tampering etc. The project has developed for identify the power theft from power line and save the energy by automatic on/off the street light according to the time set of RTC. In the electric board power theft identifier system, we will be having a current transformer which transmits the signal to microcontroller with the use of signal conditioning unit. One Current transformer will be available in the main line and the other one will be in the house. The current reading of the main line will be sensed by the CT1 and the current reading of the house will be sensed by the CT2.

**Keywords:** Electricity theft, Illegal connections, Meter tampering, Smart meter, GSM

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