



Figure 8 GSM display when code(password) send to the Arduino and its response

IV Conclusion

This paper is the combined the advantage for both utility and the customer. Arduino, current sensor, and GSM, power theft detection, and voltage variation is built which is able to read and send data via wireless protocol using GSM technology through GSM modem, capable of managing and controlling the supply to the Energy meter. Electrical power theft detection and control system is used to detect the consumer when they try to use the power illegally.

To control the revenue losses, the authorized officials needs to detect the theft of the electricity it means the theft of the bypassing tampering is the most effective one over the whole as a country comparing to the disconnecting the neutral line or magnetic tampering used to steal the electricity i.e. the unauthorized consumption of the electricity. This system ensures the accurate billing of the electricity consumed hence to provide the best way to prevent from the electricity theft. This Arduino based system is providing much better results at short haul as well as long haul.

Electricity theft, a common form of commercial losses, involves tampering with meters to distort the billing information of the power system. Commercial losses are nearly impossible to measure using traditional power system analysis tools. This is due to the lack of information on both commercial and the legitimate loads in the system, which translates to insufficient inputs for any meaningful loss calculations. By this design it can be concluded that power theft can be effectively curbed by detecting when the power theft occurs and informing the authority. Also an automatic relay is integrated to the unit so as to remotely cut off the power to the house or customer when someone tries to indulge in power theft.

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