

**PROJECT REPORT
ON
AUTOMATIC METER READING**

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ABSTRACT

We propose a novel Automatic Meter Reading (AMR) system using the IEEE 802.15.4-compliant wireless networks. Automatic Meter Reading (AMR) is an electronics system that provides functionalities of remote meter reading of usage rate of electricity, gas, water and generates billing to charge customers according to supplied amounts for energy suppliers. The majority of the current AMR is implemented by collecting data walk-by or drive-by, which limits the additional services to be added. With the rapid advancement in semiconductor and communication technology, it is possible and feasible to have a metering network to gather data remotely and efficiently.

Most recently, smart meter reading using Zigbee Technology has drawn much attention. The peer-to-peer mode is chosen for the AUDCS system, as it is more flexible and robust than the centralized implementation based on the star topology. In the AUDCS system, each node has the capability of two-way communications and may relay or forward the data for the neighboring nodes within the transmit range, hence eliminating the need of installing dedicated communication nodes to collect data. . Smart metering via an advanced metering infrastructure (AMI) has been a hot trend in the utility industry because of the promises of AMI technologies in enhanced customer service and greater energy efficiencies. This not only benefits the utility company, it also allows the customer to monitor their daily energy usage and to optimize their energy usage