AUTOMATIC METER READING SYSTEM USING WIRELESS SENSOR NETWORK AND GSM

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ABSTRACT

An emerging technology called wireless sensor network is one of the most efficient technology which can be used in various applications because of its low power, ease of use, low cost communication protocols. In this paper we present a model which is used for controlling and measuring use of our daily utilities water, electricity and gas by using wireless sensor network. WSN is a collection of widely distributed sensors which monitors physical or environmental conditions, such as temperature, sound and cooperatively passes their data through the network to a center location. It is a current most interesting area of research in field of electronics and communication. The system proposed consists of three meters, controller, a ZigBee operated wireless sensor network and GSM. GSM module used in this system is also used to advance its characteristics such as sending bills, sending notices, due dates of bill payments to customers. This system performs tasks such as taking meter reading, distribution of bills, sending notice, cutting and reconnection of flow automatically. The proposed model can lead to great deal of costs saving in water, electricity and gas metering.

KEYWORDS: Arm7, GSM, Wireless Sensor Network, ZigBee