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Implementation of an Intelligent Indoor Environmental Monitoring and Management System in Cloud

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Abstract

Indoor environmental monitoring and management system has played an essential role in public health sustainability. By monitoring the indoor air quality in public areas such as schools, offices, home or other buildings, the authorities will be given a better picture of the indoor air quality to take the right steps to ensure the better air quality for people inside the buildings. This system also can give information about indoor air quality information for the society. Therefore, to achieve this goal, we need to develop a monitoring system by using Information Technology based on Big Data and Cloud Computing environment to give warning. In this paper, we propose Intelligent Indoor Environment Monitoring System (iDEMS) combined with ZigBee wireless sensor network technology to store and process environmental data in HBase. The mechanism of the proposed system is classified into three stages: data collection, data processing, and information monitoring. To understand an Intelligent Indoor Environmental Monitoring, first, we collected the gas from Intelligent Indoor Environmental Monitoring through the environmental sensors with ZigBee wireless sensor network technology. We build a platform for iDEMS to collect the data related to the indoor gases. Second, the environmental data collected in the first stage will be stored and

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