

MAKER: Smart Multipurpose Drainage System

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Dr. Jack is not the author. The abstract has been submitted on behalf of B. Joseph Britto, S. Gowri Shankar, B. Ganga Gowtham Prabhu - Kumaraguru College of Technology, Coimbatore, India.

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Abstract

The drainage systems are required to be monitored in order to maintain its proper function. Clogged drainage system is the major cause of pollution and frequent flooding in Metro Manila especially during the rainy season. The drainage maintenance is necessary to keep the city clean, safe and healthy. If the drainage maintenance is not proper, ground water gets contaminated which may lead to the spread of infectious diseases. Contaminated water is one of the primary reasons for many of the water-borne diseases. We address this issue by the use of multipurpose drainage system. In the proposed drainage system, sensors are placed inside the manhole. These sensors monitor the flow levels of drainage, detect the elevated flow levels and clogging, if any, and transfer the appropriate information to the sensors placed next to the manholes using the communication module. A wireless sensor network that has the capacity to communicate among them is used to send and receive the data. The proposed system will continuously monitor the water levels at the drainage system and will raise an alert indicating the need for cleaning the drainage. This prevents the formation of clogging in the drainage and help to keep the city clean and safe.