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SMART REAL-TIME SEWAGE MONITORING SYSTEM USING IOT

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Abstract

Few decades, it is very difficult to Monitoring and eradicating the problem of sewage outlet system. Most of the cities and towns the clog in the sewage system will collapse to an overflow in streets. It is very dangerous for affecting respiratory and causes severe diseases. In current survey proves that hundreds of people died due to asphyxiation in India every year. The aim of present project is to surveillance and blot out the clog in the sewage system with minimum human effort. It is upper most important for this present situation. The IoT using system suggested here operates on a series of sensors and driven circuits. Gas sensor to find out level of gas formed and leakage. Ultrasonic sensor is to identify the blockage in the pipe. When the blockage is detected, immediately it will alert both server and client through IoT. Once the notification is received to the server/client, immediately the clog is rectified / cleared before the flow of water. The various kinds of detectors, sensors and driver circuits are fixed in different sections in the drainage network using Arduino Uno ATmega328P Chip. The door magnetic sensor activates the corresponding driver circuit and automatically closes the door using sliding door mechanisms. This type of sewage system is very low cost and easy maintenance. IoT based real-time when alerts the monitoring station through message, mail or any way when any manhole crosses its threshold values. This system reduces the death risk of manual scavengers who clean the underground drainage and immediately rectify the damage part. Therefore this project provides a smarter sewage management system and fills the gap between current and further research in various disciplines within the field and suggests more operational implementations in future.

Author Keywords

Gas Sensor, Ultrasonic Sensor, Magnetic Door Sensor, Arduino Uno, Sewage Monitoring System, IoT

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