IOT Based Early Flood Detection and Preventive Measurements

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Abstract: *When the flood came, the floods affected both individuals and communities, and they had social, economic, and environmental consequences. So we're designing that kind of system that gets floods before the flood comes. The purpose of the flood warning is to detect and predict flood events so that the public can be informed in advance. Thanks to flood warnings, the effects of major floods can be reduced and flood protection can be strengthened. The warning system will monitor nearby dams, rivers and collect data i.e. water level in the river and river flow rate in relation to floods and the surrounding environment from different sensors. There are three main components of this program. The first part of the system is to detect the water level using the ultrasonic sensor and the water flow rate obtained using the flow sensor as well as the temperature and humidity using the DHT11 sensor and the rain detection by Rain Sensor. The second part of the system sends data to the Thing speak cloud and the third part of the system receives the data from the cloud and displays it in the valley again when a flood situation occurs and an announcement is made to this. Part 3. The structure of the system can be expanded to include a fully functional system to inform the public of the impending flood disaster.*

Keywords IoT, Flood Detection

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