Flood Monitoring System

**Definition :**

The project involves deploying IoT sensors near water bodies and flood-prone areas to monitor water levels and provide early flood warnings through a public platform. The objective is to enhance flood preparedness and response by issuing timely warnings to both the public and emergency response teams. This project includes defining objectives, designing the IoT sensor network, developing the warning platform, and integrating them using IoT technology and Python.

Objectives :

It aims to monitor the water level and alert the authorities as well as notifying victims. In order to do this, the system needs to have the basic information such as water conditions, water level and precipitation level to detect the increase of water level during flood.

Design Thinking

Ultra sonic sensors :

The HC-SR04 ultrasonic sensor uses sonar to determine the distance to an object. This sensor reads from 2cm to 400cm (0.8inch to 157inch) with an accuracy of 0.3cm (0.1inches), which is good for most hobbyist projects. In addition, this particular module comes with ultrasonic transmitter and receiver modules.





