FLOOD MONITORING SYSTEM

PHASE 2 - PROJECT SUBMISSION

# INNOVATION:

## Sensor deployment:

* By installing water level sensors in the rivers,streams,flood-prone areas,we can measure the height of the water.
* Water level sensors are essential for tracking rising water levels and issuing flood warnings.
* Installing rainfall gauges,the amount of precipitation in a specific location can be measured.

## IOT device deployment:

* ESP32 is well suited for collecting data from the sensors (water level sensor,rain fall gauges) and also collect real time data in sensor location.
* ESP32 is preferred because of its low power capabilities and they can operate in locations without access to continuous power source.

## IOT connectivity:

* ESP32 can communicate with a server using Wi-Fi or Bluetooth connectivity.
* It can be programmed to trigger alerts based on sensor data.

## Alerts and Notifications:

* Develop dedicated mobile apps that can push alerts to users smartphones. These apps may also provide additional information and interactive maps.
* Send text messages to residents and emergency responders. SMS alerts are effective for reaching a wide audience.
* Alert the public and authorities when a flood event is imminent or ongoing. Different alert levels can be used to convey the severity of the situation.
* Employed buzzers and alarms to indicate the water levels