1.Introduction:

Natural calamities happens everywhere in the world, and which affects the human life and economy of the country. Economy and growth of any country depends upon the agriculture, hence the proper alert makes the farmers vigilant to protect the crop from flooding.

2.Problem Statement:

In order to detect and avoid flood like disastrous calamities in a timely manner, current world technology plays a vital role. We can prevent natural disaster caused by flood, with the aid of an IOT based early flood related parameter monitoring and detection system and its avoidance.

3.Project Overview:

Project Title: Flood Monitoring System

Project Duration: Sep 2023 – Dec 2023

Project Team: Dhinesh Kumar B(Leader)

Balaji M(Member)

Chandru S(Member)

Barath K B (Member)

4.Objectives:

To develop a state-of-the-art flood monitoring and early warning system and to predict and issue timely flood alerts to at-risk communities.It should enhances the coordination of emergency response efforts.

5.Scope:

The project encompasses the installation of monitoring sensors, data analysis, early warning system development, community engagement, and the establishment of a robust communication network. It targets flood-prone areas within the region to provide comprehensive coverage.

6.Implementation:

It begins with a needs assessment, identifying flood-prone areas and vulnerable communities. Following this assessment, a network of environmental sensors, including rainfall gauges, river level sensors, and weather stations, will be deployed strategically in these regions. Continuous data collection from these sensors will monitor key parameters such as rainfall intensity, river levels, and weather conditions. The collected data will undergo rigorous analysis, incorporating predictive models that assess flood risks, integrating historical flood data and soil saturation levels. An early warning system will be developed, combining predictive models and real-time data to issue timely alerts to local authorities and affected communities.

7.Timeline:

Phase 1: Project Definition and Design Thinking

Phase 2: Incorporating predictive modeling and historical flood data

Phase 3: Building the System

Phase4:Collecting the Observable data

Phase5:Maintenance and Monitoring

8.Outcome:

This project highlights the possibility to provide an alert system that will overcome the risk of flood. As the project is enabled with IOT technology and hence the sensor data can be monitored from anywhere in the world.