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FLOOD MONITORING AND EARLY WARNING

PHASE 2: INNOVATION

A Project report submitted in partial fulfilment of the requirements for the degree of B.E in computer science and engineering

BY

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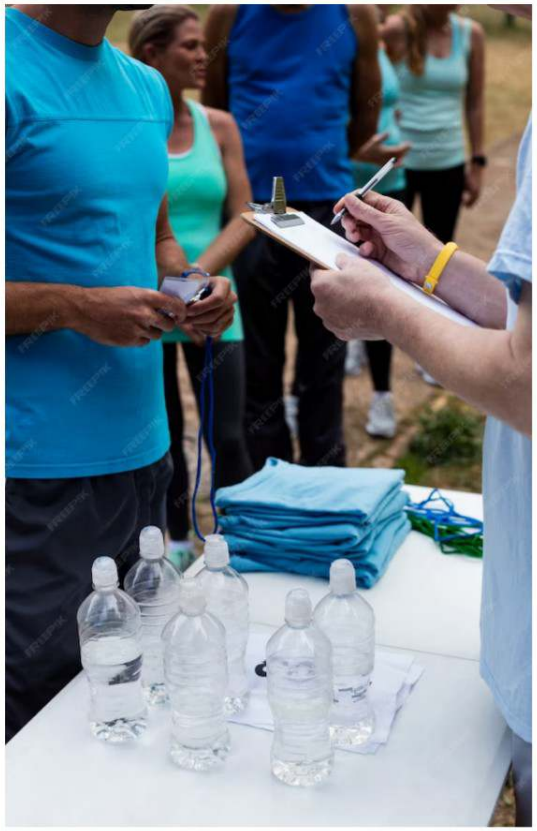


Advancements in Flood Monitoring and Early Warning Systems: Mitigating Risks and Ensuring Public Safety

Introduction

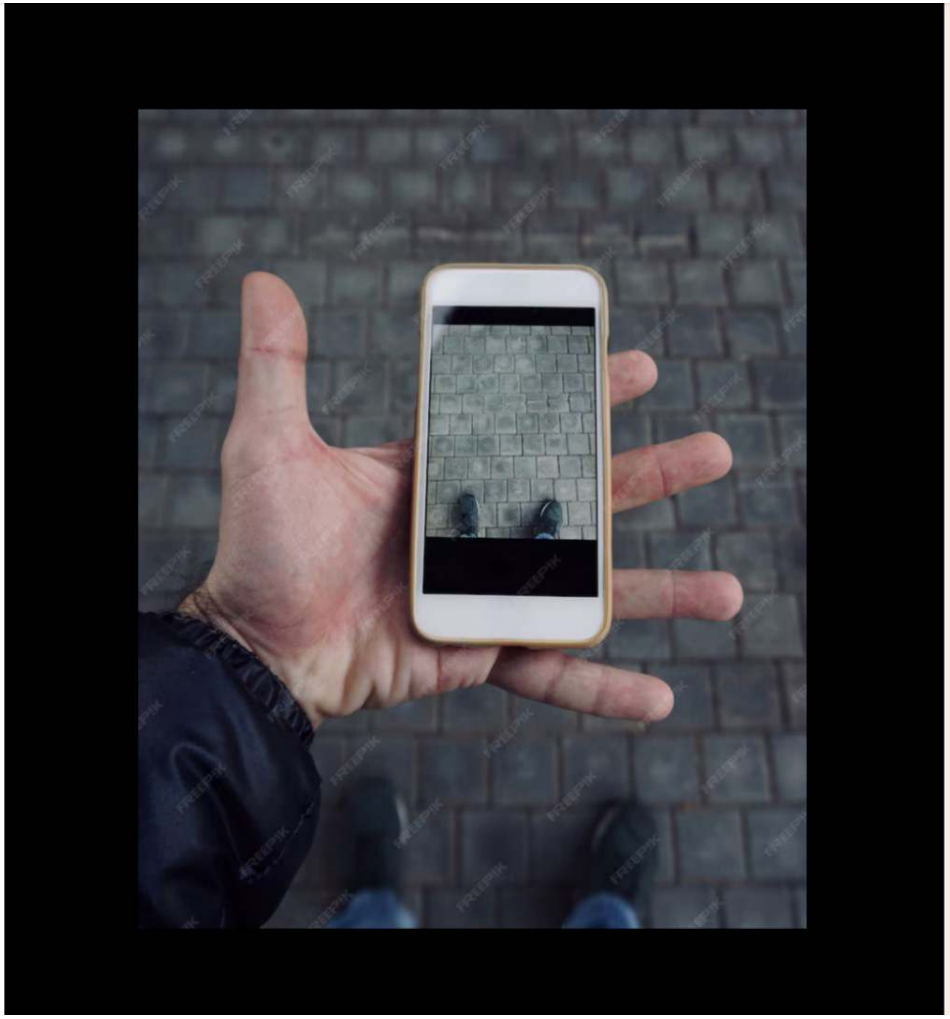
Floods are one of the most common natural disasters that cause loss of life and property damage worldwide. This presentation will discuss the latest **advancements in flood monitoring and early warning systems** that aim to mitigate risks and ensure public safety.

Flood Monitoring Technologies

Flood monitoring technologies include **remote sensing**, **radar**, **satellite imagery**, and **IoT sensors**. These technologies provide real-time data on **water level, flow rate, and rainfall** that can help predict floods and issue early warnings.

Early Warning Systems

Early warning systems use data from flood monitoring technologies to issue alerts to the public and authorities. These systems can send **SMS messages, mobile app notifications, and social media alerts**. They can also trigger **sirens and warning lights** in flood-prone areas.



Community Preparedness

Community preparedness is crucial in mitigating the impact of floods. This includes **developing evacuation plans**, **stockpiling emergency supplies**, and **raising awareness** about flood risks and early warning systems.

Case Studies

Several countries have implemented successful flood monitoring and early warning systems. For example, **Japan** has a nationwide system that uses **real-time data** to issue warnings. In **Bangladesh**, a community-based early warning system has reduced flood-related deaths by **88%**.