



COLLEGE NAME: Priyadarshni Engineering college

COLLEGE CODE :5119

COURSE NAME: Internet Of Things

GROUP NUMBER: Group 2

PROJECT TITLE:Flood Monitoring And Early Warning

PROJECT SUBMITTED TO: Skill Up online

YEAR: Illrd Year

DEPARTMENT:Electronic And Communication Engineering

SEMESTER: 5th

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Flood Monitoring And Early Warning Near Water Bodies

PROBLEM STATEMENT

1. Inadequate Flood Sensors: Insufficient sensor coverage near water bodies hampers accurate flood monitoring and early warning.
2. Data Sharing Challenges: Lack of standardized data sharing protocols among agencies impedes efficient flood data utilization.
3. Remote Area Coverage: Under served remote areas lack access to flood monitoring technology, leaving them vulnerable.
4. Data Reliability: Sensor malfunctions and data gaps undermine the reliability of flood data.
5. Alert Timeliness: Delays in disseminating flood alerts lead to reduced evacuation times and increased damage.
6. Prediction Accuracy: Inaccurate flood prediction models result in false alarms or missed warnings.
7. Community Engagement: Lack of community awareness about flood risks affects preparedness.
8. Resource Constraints: Limited funding hinders the development and



maintenance of flood monitoring systems.

9. Environmental Impact: Traditional flood control methods can harm ecosystems.

10. Climate Adaptation: Climate change challenges the adaptability of flood monitoring systems.

11. Cross-Border Collaboration: International cooperation is often hindered by political issues.

12. Land Use Planning: Poor urban planning worsens flood risks near water bodies.

Solution:

Deploy IoT sensors near water bodies and in flood-prone areas to monitor water levels. This data can be shared on a public platform to issue early flood warnings and assist emergency response teams. Use IOT sensors such as ultrasonic sensor and other sensor that operates on RADAR technologies to monitor water levels. This data is then fed to any processor such as Arduino or raspberry pi with appropriate power connections. ESP8266 module is fitted to connect with internet. This data is then shared on a public platform

