

PROJECT SUMMARY

Ref No.: MRIC/PCS-24-IT/A10	Title: Using IT and Emerging Tech to assist in Flash Flood mitigation
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TECHNICAL ABSTRACT Rising flood risks due to climate change necessitate robust flood alert systems based on the recent floods in Mauritius. This technical abstract empowers stakeholders to establish such systems, safeguarding lives and infrastructure. Crucial Components: Accurate measurement and timely notification: Precise monitoring of water levels, rainfall, and runoff enables informed anticipation and response. Coordinated emergency responses and public alerts: Effective communication protects communities during floods. Sensor Selection: Pressure sensors: Simple and affordable, but prone to biofouling. Radar sensors: Maintenance-free and accurate, ideal for long-term monitoring. Bubbler systems: Use air pressure to measure water levels, effective in areas prone to biofouling. Data Transmission: Web-based platforms: Share data publicly and facilitate collaboration. ALERT networks: Utilize dedicated networks for reliable data dissemination. Local desktop systems: Access data locally when dedicated networks are unavailable. This abstract serves as a valuable resource: Offers practical recommendations for improved flood management. Enhances community resilience against flood threats. Commercial Applications and Benefit In summary, flood management systems contribute significantly to risk reduction, business continuity, and sustainable development across various commercial sectors.	

Key Words: Flood monitoring, early warning systems, precipitation emergency response, flood risk assessment, flood forecasting, flood resilience, flood mitigation, urban flood management, real-time monitoring, flood mapping, floodplain management, flood preparedness, hazard mapping, flood control measures