

ABSTRACT

This drone-based flood monitoring system aims to provide more effective real-time monitoring than traditional systems. The system's development involved creating a dashboard-based web interface that displays real-time flood detection results. System testing was conducted using a drone equipped with a camera to capture images of field conditions, which were then processed using an object detection algorithm. The test results show that the system can provide information within minutes after data processing, with high accuracy in detecting waterlogging and other objects submerged by floods. Integration with the MongoDB Atlas database and the use of a Flask API ensure fast and secure data transmission. Thus, this system can be used by stakeholders to make quick and accurate decisions in the face of critical flood situations.

Keywords: Drone, Field Testing, Flask API, Flood Detection Dashboard, MongoDB Atlas, Real-time Flood Monitoring.