DISASTERWATCH YOGYAKARTA: DEVELOPING AN ANDROID-BASED NATURAL DISASTER-PRONE AREA PREDICTION APPLICATION

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ABSTRACT

The increasing threat of natural disasters in Yogyakarta, Indonesia, necessitates a technological solution for more accurate prediction and monitoring of disaster events. The development of the DisasterWatch application aims to provide a reliable tool for disaster prediction, utilizing predictive modeling methods based on machine learning and data mining. This application employs machine learning algorithms to analyze historical disaster data and associated risk factors, such as weather patterns, seismic activity, and soil conditions. Initial research results indicate that this prediction system can enhance the accuracy of early warnings; however, further development is required to ensure its accessibility and reliability for the community. Additionally, collaboration with the Meteorology, Climatology, and Geophysics Agency (BMKG) and local communities is being pursued to facilitate the practical implementation of this application in disaster-prone areas.

***Keywords**: Geographic applications, Natural Disaster Prediction, Natural Disaster Monitoring, Natural Disaster Impacts, Geospatial Data.*