

ABSTRACT

The forest is an ecosystem unit in the form of a stretch of land that contains natural resources and is dominated by trees in natural alliance which cannot be caused by one another. Forests are also the protector of the earth that functions to protect our living ecosystems and play a role in various things such as water supply, oxygen-producing, living places for millions of flora and fauna, and preventing global warming. Therefore, protecting and protecting the forest is a must. Increasingly the occurrence of fires, especially forest fires is something that must be overcome and prevented. Fire is an event that has the potential to destroy homes, agricultural land, even the surrounding population. The impact caused by forest fires is also very dangerous, namely puffs of smoke that spread hundreds of kilometers and could endanger residents who live in other cities.

In this study, researchers created a mapping information system (Geographic Information System) to monitor and prevent major fires through early warning in an application called GIS Assistant and will be implemented using the Fuzzy Logic method based on the Android operating system.

The results from this study are the accuracy of obtaining data from the sensor to transmitting data to the application has a high value so that fire early warning can be implemented as well on the android based application that is made.

Keywords : GIS, Sensors, Fuzzy Logic, Fire.