ABSTRACT

Fire is a natural disaster event that is very detrimental to nature and a group of individuals. Fires can be caused by human activities because neglect of man himself. Examples of fires in Indonesia, namely large fires in Riau forest, cause neighboring countries such as Malaysia, Singapore to receive shipments of smoke from Indonesia due to the forest fires.

In Indonesia, there have been many fire incidents with quite crowded places such as markets, offices, factories. Various ways to prevent fires are still used such as alarms, fire alarms, sensors, and others. Prevention is the average still manual or the technology used is less sophisticated. The sensor is enough to notify the alarm system but damage to the sensor will not be clearly visible to the human head which indicates that the sensor is not a fire prevention tool that is quite effective. The author concludes that the weakness of the security system from fire prevention itself. In this case, a fire detection system will be designed, the sensor is still used, only a camera device is added as efficient use of digital security. This fire system uses the backpropagation method used to carry out object recognition and fire patterns. This system can improve safety in fire prevention.

The output of this final project is a notification that will be sent by the detection system to fire on social media in the form of a telegram to the user. The fire detection system created has an accuracy rate of 95%.

Keywords : Fire, Sensor, Backpropagation