

ABSTRACT

Along with the development of the digital age, people become easier in dealing with problems in everyday life. The problems that will be the focus of the author's thesis is fire problems that often occur in the housing. At first fire only occurred in one house, but if the fire not treated immediately will spread to other houses. Rapid handling on fire can prevent more serious risk. Because home owners often did not realize if there is a fire in one part of the house. In addition, the accuracy of firefighters in determining the point of the event will be one of the concerns in the manufacture of fire warning system.

Based on the above problems, this thesis proposed a control system at home that will work automatically when the fire is indicated at the house. When the room in the house indicated there is a fire, the buzzer in the room will give a warning sound. Then, to reduce the risk of fire, the system will cut electricity lines in the house and sprayed water in the room. In addition, the system will also warn nearby fire fighter via sms.

The method I use is the image processing method. The authors use Raspberry mini computer processing camera image data capture results as a base.

Hopefully, authors can create a system that can warn fire fighter. In addition to alerts, the system is also expected to prevent the spread of fire hotspots to cut electrical lines and put out the fire using automatic water pump.

Keywords: Raspberry, Image Processing, GSM Module, Buzzer, Camera, Water Pump DC, Relay.