ABSTRACT

Along with the development of the digital age, humans can be easy in solving problems in everyday life. The problem that will be the focus of the author for this final project is the problem of fire that often on the Book Factory Kiky PT.SOLO MURNI. On earthquake patches only occur in one warehouse, but the fire if not soon will spread to other warehouses. Quick handling of fires can prevent more severe earthquakes. Because it is not resistant to earthquakes in one of the warehouse. In addition, the precision of firefighters in determining the point of occurrence will be one of the concerns in the making of the system.

Overcoming the problem, the author makes and creates. Input images from the camera informed to the controller / Raspberry pi. Raspberry pi will process the image input as training data by using BackPropagation Neural Network Algorithm. The results of data processing will be issued information whether there is fire or absence of fire. If the result of the decision above then there will be information that can be sent directly to the responsible warehouse and the nearest fire department.

The end result of this study shows that the more sample study will produce more accurate results. 40x40 pixel architecture is the best size and the smaller the more it will generate more iterations.

Keywords: Raspberry, Image processing, Camera, Neural Network.