ABSTRACT

Indonesia is a country often hit by floods every year, especially the area of large cities that are already densely populated and there is less room for the river as its main medium water drainage when it rains. As a result of search and handling of flood victims to be slow due to several factors such as access to the site is narrow so it can not be accessed with a rubber boat. From the condition we need a tool that has a camera used for monitoring the flood area.

The tools used to access the flooded area is a hovercraft that can walk on land and in water. Hovercraft will be mounted on a camera to process video streams and perform face recognition which is managed by the Raspberry Pi. On Raspberry pi installed wifi usb dongle to communicate with a PC and installed PIR sensor which serves to detect humans. Communication between PC and Raspberry Pi using streamer MJPG so that the user can see the stream of Raspberry PI. Communication between PIR sensor with a PC is to use RF433MHz and controlled by ardunio to be displayed on a PC serial por.

In this study the PIR sensor can detect humans with good results and stream video from the Raspberry Pi can be accessed through a GUI created with Visual Studio 2012. With this system could make it easier for rescuers in the rescue mission flood victims in densely populated areas and could be done after the flooding.

Keywords*: Flood, Raspberry Pi, camera, Hovercraft, RF433Mhz, PIR sensor*