ABSTRACT

Image Processing is a form of processing the signal with the input of image and transformed into another image as output with certain techniques. In this opportunity we will create a fire detector device using Raspberry Pi and Webcam Camera and apply the method of Image Processing using the Haar Cascade Classifier Algorithm to detect the real fire and use the concept of Internet of Things (IoT).

As long as the device in active condition, the camera will continue to monitor the conditions in the room. If there is a fire detected by the camera, then the fire image will be processed using Image Processing then the result is a data string sent to the server and forwarded to the user's smartphone (using the concept of IoT) as a warning (alert) there is fire in the room.

Keywords: Raspberry Pi, Image Processing, IoT, Haar Cascade Classifier