ABSTRACT

In this all-digital era, the growth of machines in the industrial sector to produce goods. To maintain the machine so that it continues to operate optimally, a tool that is able to monitor the condition of the machine is needed to prevent damage to the machine which will be fatal. If humans had to supervise each machine directly it would be very dangerous. Therefore, we need a tool that can monitor the condition of the machine without direct contact so that it will not harm anyone. And machine monitoring can run effectively. In this study, AMG8833 thermal camera is used to detect the temperature of a machine that is working. Connected to the NodeMCU ESP8266 microcontroller as an IoT communication tool so that it can monitor remotely. This system can monitor temperature data via a web application that can be viewed by both mobile phones and PCs. By monitoring the temperature, it is hoped that it can prevent damage to the machine so that it can continue to operate safely and well maintained so that it can work optimally. The experimental results prove that the system made is capable of operating at a temperature of 100°C with a distance between the sensor and the test object no more than 30 cm.

Keywords: AMG8833, IoT, Thermal Camera, Machine Monitoring