ABSTRACT

If the manufacturing industry equipment is damaged or unexpected failure in a long time, then this result in a lot of time and cost losses.

Predictive maintenance of industrial manufacturing machines and tools can be aided by the use of advance modern sensing and data analytics technologies. With this technology can save time and maintenance costs. To improve the competitiveness of the manufacturing industry, there must be a combination of saving tool maintenance costs and increasing tool productivity.

In this paper, the author makes maintenance of a duct fan based on anomaly detection. The main focus is on industrial duct fan as they are one of the most common pieces of equipment in most manufacturing industries. In this study, an anomaly information system was created on the duct fan using IoT technology that can display information data related to anomalies. This study uses the MPU6050 sensor which is placed on the duct fan to determine whether there are anomalies or not. The data output from the sensor readings will be sent to the IoT platform and will display whether the duct fan has anomaly or not. The author uses the fuzzy logic method and the sum vector formula to determine the normal limit of 0,87 rad/s^2 and determine the error limit of 0,13 rad/s^2.

__Keywords:__ Predictive Maintenance, Anomaly Detection, Duct Fan