**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<sup>2</sup> and determine the error limit of 0,13

 $rad/s^2$ .

Keywords: Predictive Maintenance, Anomaly Detection, Duct Fan

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