Abstract

Predictive maintenance on aircraft engine compressor that’s done by PT. Merpati Maintenance Facilities (MMF) of Juanda airport nowadays still using preventive maintenance. This method will make more benefit of maintenance cost section. Through this research, the prediction will be computerized using the fuzzy logic approach. Four performance data used as the input of the logic are outside air temperature, low speed rotor, exhaust gas temperature, fuel flow and oil pressure. Those input data will bring a connection with the high speed rotor of compressor as output data. All of the data used in building the fuzzy logic taken on 2 years that are August 2008 and October 2009. In this paper, has been done fourth of prediction strategy. From that strategy, the best result could be founded at four input and one output. Then there will be 26 curves of membership function that build 1567 if-then rules at the logic. After accomplishing it, the logic will be tested using data from August 2008 and October 2009 for determining the accuracy of output data prediction as big 99.18 percent.

Keywords: Rotation speed prediction, aircraft engine compressor, fuzzy logic.
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