

Comparison of Naïve bayes classifier with back propagation neural network classifier based on f - folds feature extraction algorithm for ball bearing fault diagnostic system

ABSTRACT

This paper is intended to compare the Naïve bayes classifier for ball bearing fault diagnostic system with the back propagation neural network based on the f-folds feature extraction algorithm. The f-folds feature extraction algorithm has been used with different number of folders and clusters. The two classifiers have shown similar classification accuracies. The Naive bayes classifier has not shown any case of false negative or false positive classification. However, the back propagation neural network classifier has shown many cases of false positive and false negative classifications.

Keyword: Diagnostic system; Engineering materials; Naive bayes classifier; Neural network classifier