

ROLLING ELEMENT BEARING FAULTS DETECTION, A TIME-DOMAIN ANALYSIS

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ABSTRACT

Time domain analysis is one of the simplest and cheapest fault detection approaches. In this paper two time-domain parameters, namely, Root Mean Square (RMS) and the Kurtosis Factor (KF) have been used as indicators for rolling bearing fault detection with different bearing conditions. The experimental results show the effectiveness of the KF as an indicator for rolling bearing fault detection with less affect by the working conditions (i.e. shaft rotational speed).

KEY WORDS: Time-Domain Vibration Analysis, Kurtosis, RMS, Histogram