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VIBRATION ANALYSIS OF ROTATING MACHINES: A COMPETITIVE ANALYSIS OF DIFFERENT TECHNIQUES

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Abstract

Vibration analysis is a fundamental tool for condition monitoring. Earlier vibration analysis was used to determine faults & critical operation conditions but with the implementation of modern soft computing skills nowadays vibration analysis are not only limited trying to minimize the consequences of failure of machinery but to utilize the existing resources more effectively in an economic way. This paper is an attempt to review some of the methods of vibration analysis of rotating machines with an effort to provide general guidelines for selecting proper monitoring strategy in practical applications.

Keywords: Condition Monitoring, Time domain analysis, Frequency domain analysis, Fourier transform, Wavelet transforms.