



EXPLORING SUPPORT VECTOR REGRESSION FOR BEARING DEGRADATION

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Abstract

Predicting bearing degradation before reaching the state of risk of accident is a significant issue in power generation insurance. Bearings are largely present in turbine of power generation. The purpose of this paper is to explore the support vector regression for bearing state degradation. The method is applied on PRONOSTIA dataset which is an experimental platform dedicated to test methods related to bearing

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health assessment. Several data sets have been used to explore the characteristics of support vector regression. The experiments on real data show that the support vector regression is similar to smoothing technique. A life table gives probabilities based on failure per thousands in a given year and used to help determine premiums. The proposed method can be served as a part of power generation insurance. The main issue in power generation insurance is how to construct a mortality table like in power generation. The methodology proposed in this paper is a new application of mortality table construction in power generation insurance.