



Smartphone Application for Fault Recognition

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Submitted: June 10, 2013

Accepted: Aug. 08, 2013

Published: Sep. 05, 2013

Abstract: Smart-phones have become an essential tool for many in daily life. Smart-phone Application development has grown rapidly to fulfill the demands of increasingly diverse usage. This paper presents an application based on a fault recognition model that can be used for recognizing different acoustic patterns. The application is made to detect various faulty conditions of an industrial air compressor based on the sound generated by the machine. The application has been tested in real time and is found to perform very well with classification accuracies above 94.75%. We propose that similar applications and recognition models with some modified specifications could be used for acoustic pattern recognition in a wide range of areas.

Index terms: Feature Extraction; Android; Feature Classification; Feature Selection; Support Vector Machines