

# Vibration Diagnosis in Automotive Applications

The noise, vibration and harshness (NVH) behavior is of increasing importance in the whole life-cycle of modern cars. In case of vibration problems, reliable methods for the determination of the underlying faults (imbalance, broken bearings, ...) are needed. The goal of this thesis is the development of machine learning algorithms for the classification of measured vibration signals and a fault detection method based on these vibration classes.

## Tasks:

- Literature review on machine learning and classification of vibration signals
- Definition of faults to be detected
- Planning and construction of test setup
- Implementation and performance tests of state of the art algorithms for test setup

## General:

- Paid master's thesis in cooperation with AVL DiTEST GmbH
- Start: Now
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