M.Sc thesis project in biomedical signal processing:
Cardiovascular effects of exposure to biodiesel exhaust

The thesis project is linked to a larger research project, the purpose of which is to characterize emissions from vehicles powered by renewable fuels and to determine how humans are affected by being exposed to the exhaust gases. Within the project, chamber studies are carried out where test persons are exposed to biodiesel exhaust gases in a controlled and ethically approved manner and potential negative health effects are measured.

The aim of this thesis is to study the acute effects of exposure to biodiesel exhaust gas on cardiovascular function based on recordings of ECG and PPG data from the test subjects during the chamber exposures. The following parts are included in the work:
*Literature review
* Implementation of signal processing algorithms for ECG and PPG analysis (Matlab)
* Analysis of PPG and ECG data from the exposures

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