

Reduction of infrasound – alternative noise-control strategy using anti-noise and large speakers

Infrasound, i.e. very low-frequency noise ($< 20\text{Hz}$), usually is not audible. However, infrasound can be audible and thereby pose a problem if the sound pressure is high enough. Exposure to high infrasound levels can cause stress, exhaustion, headache and dizziness. In other words, infrasound can pose a problem for working environments.

A good strategy for reducing infrasound is to dampen noise at the source, e.g. by reducing the vibrations or sound radiation from the source. This is not always possible, though, rendering it necessary to have an alternative solution.

The purpose of the project is to uncover the possibility of reducing infrasound in an existing CHP plant by using smart signal processing, anti-noise and large speakers. If the project proves successful, the solution will be applicable in other contexts to reduce low-frequency noise.

The results and the signal processing code will be made public, allowing others to apply the solution.