Chair of Vibroacoustics of Vehicles and Machines
TUM School of Engineering and Design
Technical University of Munich

TUM

Semester project

Sonification of AI-Networks in collaboration with DLR

Topic
In our daily life we use our eyes for orientation in the three dimensional space and our ears for evaluating time depended processes within that space. Therefore, our ears appear to be an indirect sensor for time. It is clear to see that the audiological level serves as an additional source of valuable information, whereas the sonification of data provides a additional insight. Sonification describes the basic procedure for representing the most varied forms of data using different musical parameters such as pitch, volume, timbre, or other musical means. An important question within sonification is how and in what form data can be converted into auditory information so that this transfer and transformation process can create added value in information for the listener.
In collaboration with DLR Braunschweig, this study is intended to find ways to use sonification in the framework of AI-networks in order to increase the understanding of such networks and how they evolve in time.

Tasks
· Extensive literature research
· Identification of possible ways to apply sonification to AI-Networks
· Ideas for classification various AI-Network substructures

Requirements
· High interest in cutting edge research
· High interest in sound design
· High interest in vibro-acoustics and dynamics of complex systems and structures
· Basic knowledge of music is advantageous

Additional Information
· Project page of Peter Michael von der Nahmer
· Basic literature available

English or German language is possible for this thesis.

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