



Bachelor thesis supervisor's review

CZECH TECHNICAL UNIVERSITY IN PRAGUE

Faculty of electrical engineering

Department of electrical power engineering

Technická 2, 166 27 Prague 6, Czech Republic

Effect of cochlear compression on predicted speech in noise perception

Author: Yuyang Liu

Thesis supervisor: Ing. Václav Vencovský, Ph.D.

Rating (1 – 5)
(1 = best; 5 = worst):

1. Fulfillment of assignment requirements:	<input type="text" value="1"/>
2. Self-reliance and initiative during the thesis solution:	<input type="text" value="3"/>
3. Systematic solutions of individual tasks:	<input type="text" value="3"/>
4. Ability to apply knowledge and to use literature:	<input type="text" value="4"/>
5. Collaboration and consultations with the thesis supervisor:	<input type="text" value="1"/>
6. Thesis formal and language level:	<input type="text" value="3"/>
7. Thesis readability and structuring:	<input type="text" value="3"/>
8. Thesis professional level:	<input type="text" value="3"/>
9. Conclusions and their formulation:	<input type="text" value="3"/>
10. Final mark evaluation (A, B, C, D, E, F):	<input type="text" value="D"/>

verbal: **satisfactory**

Brief summary evaluation of the thesis (compulsory):

Yuyang Liu in his bachelor thesis entitled “Effect of cochlear compression on predicted speech in noise perception” investigated how the multitalker noise distorts the auditory model responses to speech at various intensities. The task was to compare predicted similarities between the model outputs in response to clean speech and the model outputs in response to speech and multitalker babble noise with constant signal to noise ratio, but various overall intensities. Yuyang could



compare the simulated results with the results of a listening experiment conducted using the same signals and presented elsewhere. Yuyang started the work on his thesis in the winter semester of 2023, but extended it to the summer semester of 2024. In the winter semester, his initiative was not strong enough to finish the work. However, in the summer semester, Yuyang worked on the thesis the whole semester and fulfilled the topic. The topic of the thesis required knowledge about the physiology of hearing together with signal processing skills. My impression is that Yuyang was struggling with understanding of this interdisciplinary project, which slowed down his progress and made him less independent during the project solution. Due to these reasons, although I recommend the thesis for defense, my overall grade is D (satisfactory).

Date: 4.6. 2024

Signature:



Notes:

- 1) The total thesis evaluation needn't be determined by the partial evaluations average.
- 2) The total evaluation (item 8) should be from the following scale:

excellent	very good	good	satisfactory	sufficient	insufficient
A	B	C	D	E	F