



Bachelor thesis supervisor's review

Master thesis: Acoustic Event Detection

Author: Jamal Aslanov

Thesis supervisor: Ing. Jakub Svatoš, Ph.D.

Rating (1 – 5)
(1 = best; 5 = worst):

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

verbal:

Very good

Brief summary evaluation of the thesis (compulsory):

Jamal Aslanov made the bachelor thesis on the gunshot detection topic. For Jamal it meant studying the whole problematics of gunshots, its characteristics, patterns and possible methods for its detection. In theoretical part, student has proven his ability to understand the problematics. He has done extensive theoretical analysis taking into account almost all issues related to gunshot detection, using lots of references (some of them are inappropriately cited) and proposed simple methods in time and frequency domain.

In practical part, Jamal proposed different methods in frequency domain, namely FFT, PSD, zero-crossing, peak-valley difference, and Mel-frequency coefficients in time domain, using MATLAB environment. Even though Jamal didn't have any previous experiences with MATLAB and signal processing he implemented all proposed methods and applied them on approx. 50 different signals (various gunshots and "false alarms") which were given to him.

The achieved results showed some differences between real gunshots and false acoustic impulse events. On the other hand, I would expect better results, especially in case of a Mel-frequency method. I attribute this to the inexperience of the student in a field of advanced signal processing and also running of time at the end of his work.



The overall level of the work is very good. Student Jamal Aslanov worked out his bachelor thesis individually, regularly consulted every step and fulfilled the assignment in its entirety. I recommend the thesis for the defense and I evaluate it Very good.

Date:

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