

I. IDENTIFICATION DATA

Thesis name:	Enhanced racing drone detection using microphones
Author's name:	Bc. Jiri Fiedler
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Telecommunication Engineering
Thesis reviewer:	doc. Ing. Zdenek Lokaj, Ph.D.
Reviewer's department:	Faculty of Transportation Sciences (FTS), CTU in Prague

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	ordinarily challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
The diploma assignment was ordinarily challenging, student should creatively propose a solution of enhanced racing drone detection using microphones	

Satisfaction of assignment	fulfilled with major objections
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
The author fulfilled the assignment but the theoretical part is very short and not so detailed. I think the author should add more detailed analysis of technical solutions of drone detection and also analyze advantages and disadvantages of alternative technological options of drone detection. Practical implementation of drone detection is impressive but the achieved results should be more explained.	

Method of conception	partially applicable
<i>Assess that student has chosen correct approach or solution methods.</i>	
The author chooses the right approach of a practical solution that is systematic, but there is deep theoretical basis missing. Author should analyze and describe in detail state of the art of drone detection solutions.	

Technical level	C - good.
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
Technically, the work is at acceptable level, but there is deep theoretical analysis missing as a basis for practical part of the thesis. On the other hand, I understand that getting relevant information in new area is very limited in public sources. I appreciate practical focus of the thesis and developed solution of drone detection.	

Formal and language level, scope of thesis	A - excellent.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
The structure of the work is comprehensible and clear. The graphic of the work is good and clear, although in some cases the pictures could be more clear in order to express the information.	

Selection of sources, citation correctness	C - good.
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	
Student has chosen the proper approach of obtaining information, but not as deep as it was necessary, mainly in the research part of the thesis should be used more sources and provide more detailed results.	

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

Please insert your commentary (voluntary evaluation).

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.

The presented diploma thesis is processed in a impressive level, mainly in practical part. But author focused more on the practical part of detection the drone in gates. The theoretical part should be more detailed mainly in better description of existing detection methods and analysis of advantages/disadvantages.

I appreciate the thesis for practical focus on solving a particular problem and implement the appropriate solution. Formally, the work is done in good quality, the text and the structure are comprehensible. Selection of used resources could be more extensive.

I evaluate handed thesis with classification grade **C - good**.

Questions:

1. Please provide analyze of advantages/disadvantages of current solutions of drone detection and compare it with tested technology.

Date: **4.6.2018**

Signature: