



Review report of a final thesis

Student: Ondřej Vokoun
Reviewer: Ing. Alexandru Moucha, Ph.D.
Thesis title: Útoky pomocí softwarově definovaného rádia
Branch of the study: Computer Security and Information technology

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<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
1. Fulfilment of the assignment	<u>1 = assignment fulfilled,</u> 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled
<i>Criteria description:</i> Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently. In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment's fulfilment and the way it affected your final evaluation.	
<i>Comments:</i> The assignment is fulfilled with the exception of the car unlocking. However this was not (as a particular case) part of the requirement, but an extra - and I admire the fact that the student had a backup plan and an extension plan (he was not happy only with the easy meteo station but wanted to try it on something more difficult and, in case it would not work - as it happened - to still have the basis fulfilled). This is how it should be done as I can see - even from the presentation the excitement of experimenting and the clarity of the ideas.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
2. Main written part	100 (A)
<i>Criteria description:</i> Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies? Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 26/2017, Art. 3. Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.	
<i>Comments:</i> The work is excellently written, easy to read and understand. The ideas are clearly presented, the theory is very competently explained.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
3. Non-written part, attachments	95 (A)
<i>Criteria description:</i> Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.	
<i>Comments:</i> The missing 5 points are for the incomplete test with the car unlocking, which - in my opinion - should have been more successful.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
4. Evaluation of results, publication outputs and awards	100 (A)
<i>Criteria description:</i> Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.	

Comments:

I gave it full points because I consider 3 (three) main outputs for this work:

- a trained student, willing to do an excellent job in this area;
- a fully working testbed which can be improved in future reiterations;
- a limitless area of research for which the student has already a global overview.

For the moment there are not publishable results but - as I advice the student - if the work is continued, results will not cease to appear.

Evaluation criterion:

No evaluation scale.

5. Questions for the defence

Criteria description:

Formulate questions that the student should answer during the Presentation and defence of the FT in front of the SFE Committee (use a bullet list).

Questions:

Rather rhetoric question: how many out of these problems can be solved by encrypting the data? I do not expect an answer but rather a thinking process as - in many cases (jamming for example or a key exchange process) - it does not help as there is no proper authentication (2-3 step authentication) and thus an intermediate device can play the man in the middle role.

Evaluation criterion:

The evaluation scale: 0 to 100 points (grade A to F).

6. The overall evaluation

100 (A)

Criteria description:

Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.

Comments:

Excellent work. With a little improvement on the experiments side and this could have been a diploma thesis as it fulfils the following: the student is able to read and understand technical literature, is able to focus on a problem, find a solution, test and validate the proposed solution. This is - by all means - an engineering work. I can only congratulate the student for choosing a difficult and beautiful area of research.

Signature of the reviewer: