I. IDENTIFICATION DATA

Thesis name:	**Secure Firmware Upgrade of Embedded Platform**
Author's name:	**Jan Simunek**
Type of thesis :	bachelor
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	**challenging**

Evaluation of thesis difficulty of assignment.

The diploma assignment was challenging, student should creatively propose a solution of secure firmware upgrade of embedded platform.

Satisfaction of assignment	**fulfilled**

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.

The author fulfilled the assignment with some small gaps in the theoretical part, where the author should write more detailed analysis of practical implementation of firmware upgrade. On the other hand, the practical part of thesis is very impressive.

Method of conception	**correct**

Assess that student has chosen correct approach or solution methods.

The author chooses the right approach to a solution that is systematic based on the theoretical basis and subsequently using the methods.

Technical level	**A - excellent.**

Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.

Technically, the work is at a very high level. I greatly appreciate practical focus of the thesis and the solution of secure firmware upgrade, which has many dimensions – technical, process etc. Author also implemented designed solution and tested achieved results.

Formal and language level, scope of thesis	**A - excellent.**

Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.

The structure of the work is comprehensible and clear. The graphic of the work is good and clear.

Selection of sources, citation correctness	**A - excellent.**

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.

Student has chosen the proper approach of obtaining information, in expected depth. Some of the citations should be listed better.

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 thesis is processed in a very interesting way. Author focused on the theoretical and also on the practical part of secure firmware upgrade. I appreciate the thesis for practical focus on solving a particular problem. Formally, the work is done in very good quality, the text and the structure are comprehensible. In my opinion the presented bachelor thesis has quality of diploma thesis so there is very difficult to find any mistakes.

I evaluate handed thesis with classification grade **A - excellent.**

Questions:

1) Explain possibilities of asymmetric cryptography in the solution of secure firmware upgrade.
2) Please explain in detail solutions of secure storage of crypto material in embedded platforms.

Date: **4.6.2018**   Signature: