# Supervisor's statement of a final thesis

## **Czech Technical University in Prague**

**Faculty of Information Technology** 

Student: Bc. Tomáš Velechovský Ing. Alexandru Moucha, Ph.D. Supervisor:

Thesis title: Zprovoznění sítě typu DWDM SONET / SDH, její konfigurace a monitorování

Computer Systems and Networks (Master, in Czech and in English) Branch of the study:

Date: 1, 6, 2015

| Evaluation criterion:                               | The evaluation scale: 1 to 5.   |
|---|---|
| Difficulty and other comments     on the assignment | 1 = extremely challenging assignment,  2 = rather difficult assignment,  3 = assignment of average difficulty,  4 = easier, but still sufficient assignment,  5 = insufficient assignment |
|   |   |

Criteria description.

Characterize this final thesis in detail and its relationships to previous or current projects. Comment what is difficult about this thesis (in case of a more difficult thesis, you may overlook some shortcomings that you would not in case of an easy assignment, and on the contrary, with an easy assignment those shortcomings should be evaluated more

The work was oriented towards building an optical DWDM lab for the students together with a user manual that the students could use to understand the optical technologies and how to configure a simple DWDM network.

The main problem was that in spite of having the needed hardware, we did not have any user manual and any experience building a DWDM network. These tasks fell on the student to gather, document, understand and refine and this is the main content of the diploma thesis.

| Evaluation criterion:           | The evaluation scale: 1 to 4.                                |
|---------------------------------|--|
| 2. Fulfilment of the assignment | 1 = assignment fulfilled,                                    |
| l                               | $\overline{2}$ = assignment fulfilled with minor objections, |
|                                 | 3 = assignment fulfilled with major objections,              |
|                                 | 4 = assianment not fulfilled                                 |

Assess whether the thesis meets the assignment statement. In Comments indicate parts of the assignment that have not been fulfilled, completely or partially, or extensions of the thesis beyond the original assignment. If the assignment was not completely fulfilled, try to assess the importance, impact, and possibly also the reason of the insufficiencies.

All the requirements were fulfilled. The work was oriented towards SONET / DWDM optical technologies. The SONET part simply could not be implemented or documented because the pieces of equipment do not allow SONET, only transparent DWDM. Thus the focus is on the DWDM technology.

| Evaluation criterion:   | The evaluation scale: 1 to 4.   |
|---|---|
| 3. Size of the main written part  | <ul> <li>1 = meets the criteria,</li> <li>2 = meets the criteria with minor objections,</li> <li>3 = meets the criteria with major objections,</li> <li>4 = does not meet the criteria</li> </ul> |
|   | 4 – does not meet the criteria  |
| Criteria description: Evaluate the adequacy of the extent of the final thesis, considering its content and the size of the written part, i.e. that all parts of the thesis are rich on information and the text |   |

does not contain unnecessary parts

The work had to be kept at a reasonable size because it will be used by the students at MI(E)-MTI to configure the optical network. Too much detail will translate into a lot of time invested into reading and possible loss of focus.

|   | <u> </u>  |  |
|---|---|--|
| Evaluation criterion:   | The evaluation scale: 0 to 100 points (grade A to F). |  |
| 4. Factual and logical level of the thesis  | 95 (A)  |  |
| Criteria description: Assess whether the thesis is correct as to the facts or if there are factual errors and inaccuracies. Evaluate further the logical structure of the thesis, links among the chapters, and the comprehensibility of the text for a reader. |   |  |
| Comments: The work follows the logical path of solving problems, exactly in the w   | yay an engineer have to perform this.                 |  |

| Evaluation criterion:         | The evaluation scale: 0 to 100 points (grade A to F). |
|-------------------------------|---|
| 5. Formal level of the thesis | 95 (A)  |
| Criteria description:         | D 1 D: 1: N 42/2044 A 1: 1 2                          |

Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspect s, see Dean's Directive No. 12/2014, Article 3.

## Comments:

The work is very well written and easy to read and understand. It also follows the guidelines such a work should be written. The work introduces the reader to the problematic, it creates the design and then tests the design.

Evaluation criterion: The evaluation scale: 0 to 100 points (grade A to F). 100 (A) Bibliography Criteria description: Evaluate the student's activity in acquisition and use of studying materials in his thesis. Characterize the choice of the sources. Discuss whether the student used all relevant sources, or whether he tried to solve problems that were already solved. Verify that all elements taken from other sources are properly differentiated from his own results and contributions. Comment if there was a possible violation of the citation ethics and if the bibliographical references are complete and in compliance with citation standards. Excellent work with literature and with the ADVA company to build this project. The evaluation scale: 0 to 100 points (grade A to F). 90 (A) 7. Evaluation of results, publication outputs and awards Comment on the achieved level of major results of the thesis and indicate whether the main results of the thesis extend published state-of-the-art results and/or bring completely new findings. Assess the quality and functionality of hardware or software solutions. Alternatively, evaluate whether the software or source code that was not created by the student himself was used in accordance with the license terms and copyright. Comment on possible publication output or awards related to the thesis. The work itself does not contain new information (it has no novelty factor). Its main purpose is to improve the MI(E)-MTI subject by allowing the students to understand and practice optical transport networks **Evaluation** criterion No evaluation scale 8. Applicability of the results Criteria description: Indicate the potential of using the results of the thesis in practice. The results of this work are extremely important because this material will be incorporated into lectures and labs for future students. Evaluation criterion: The evaluation scale: 1 to 5. Activity and self-reliance of the 1 = excellent activity, student 2 = very good activity, 3 = average activity, 4 = weaker, but still sufficient activity, 5 = insufficient activity 9b: 1 = excellent self-reliance, 2 = very good self-reliance, 3 = average self-reliance, 4 = weaker, but still sufficient self-reliance, 5 = insufficient self-reliance. Criteria description. Review student's activity while working on this final thesis, student's punctuality when meeting the deadlines and consulting continuously and also, student's preparedness for these consultations. Furthermore, review student's independency

Excellent work. The student had no previous experience with optical networks and such networks were only marginally presented in the lectures of FIT.

Evaluation criterion. The evaluation scale: 0 to 100 points (grade A to F). 89 (B)

10. The overall evaluation

Criteria description:

Summarize the parts of the thesis that had major impact on your evaluation. The overall evaluation does not have to be the arithmetic mean or any other formula with the values from the previous evaluation criteria 1 to 9.

Comments:

Very good work which will improve the teaching quality and content for future generations of students at FIT.

Signature of the supervisor: