

Review report of a final thesis

Czech Technical University in Prague

Faculty of Information Technology

Student: Simeon Kredatus
Reviewer: MSc Christoph Romer
Thesis title: Analysis and Design of Supporting Information System Enhancing Characterization and Quality Assurance of Electrically Tunable Optical Products
Branch of the study: Information Systems and Management (Bachelor, in Czech))

Date: 4. 6. 2015

<p><i>Evaluation criterion:</i></p> <p>1. Difficulty and other comments on the assignment</p> <p><i>Criteria description:</i> 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 strictly.)</p> <p><i>Comments:</i> We think that there are certainly easier projects where the specification is better known right from the start. Mr. Kredatus had to collect all the requirements, think about possible impacts further down the road during application usage in production and carefully decide on appropriate implementations. Therefore we came to the conclusion that this topic is above average difficulty.</p>	<p><i>The evaluation scale: 1 to 5.</i></p> <p>1 = extremely challenging assignment, 2 = rather difficult assignment, 3 = assignment of average difficulty, 4 = easier, but still sufficient assignment, 5 = insufficient assignment</p>
<p><i>Evaluation criterion:</i></p> <p>2. Fulfilment of the assignment</p> <p><i>Criteria description:</i> 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.</p> <p><i>Comments:</i> Every assignment was successfully fulfilled.</p>	<p><i>The evaluation scale: 1 to 4.</i></p> <p>1 = assignment fulfilled, 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled</p>
<p><i>Evaluation criterion:</i></p> <p>3. Size of the main written part</p> <p><i>Criteria description:</i> 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.</p> <p><i>Comments:</i> The thesis is of appropriate length and contains all the parts one would expect.</p>	<p><i>The evaluation scale: 1 to 4.</i></p> <p>1 = meets the criteria, 2 = meets the criteria with minor objections, 3 = meets the criteria with major objections, 4 = does not meet the criteria</p>
<p><i>Evaluation criterion:</i></p> <p>4. Factual and logical level of the thesis</p> <p><i>Criteria description:</i> 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.</p> <p><i>Comments:</i> In general the thesis contains no factual errors. In the chapters "Economic Aspects of the software" as well as "Return on investment evaluation" the link between presented data is sometimes difficult to find out. Example calculations and more cross references to data sources would have been beneficial. Some chapters could have been structured slightly better in order to make understanding and reading easier for the reader (e.g. Software Design chapter)</p>	<p><i>The evaluation scale: 0 to 100 points (grade A to F).</i></p> <p>93 (A)</p>
<p><i>Evaluation criterion:</i></p> <p>5. Formal level of the thesis</p> <p><i>Criteria description:</i> Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspects, see Dean's Directive No. 12/2014, Article 3.</p>	<p><i>The evaluation scale: 0 to 100 points (grade A to F).</i></p> <p>85 (B)</p>

Comments:

We cannot find any formalisms that would not be correct. Linguistics are good in view of the fact that this is most probably the first bigger thesis Mr. Kredatus had to write in English. There is certainly room for improvement which will certainly also come around with more experience. Pictures are sometimes of very low resolution. For schematic images it is much better to stick to vector data files (much smaller pdf and much better quality). Tables are sometimes a bit confusing because of their formatting.

Evaluation criterion:

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

6. Bibliography

90 (A)

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.

Comments:

There are not that many bibliographic references, but due to close work with our Company (and internal documentation) this can also be expected and is fine from our point of view.

Evaluation criterion:

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

7. Evaluation of results, publication outputs and awards

95 (A)

Criteria description:

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.

Comments:

As we know the current state of the art of characterization systems for tunable optics very good, we can safely state here that this work was well beyond the current state-of-the-art.

Evaluation criterion:

No evaluation scale.

8. Applicability of the results

Criteria description:

Indicate the potential of using the results of the thesis in practice.

Comments:

The results of this work are 100% directly applicable from our point of view since its output directly influences and heavily improves our production workflow.

Evaluation criterion:

No evaluation scale.

9. Questions for the defence

Criteria description:

Formulate any question(s) that the student should answer to the committee during the defence (use a bullet list).

Questions:

- Are there things you would do differently if you would have the opportunity to start the project from scratch once again?
- If yes, what would those be?

Evaluation criterion:

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

10. The overall evaluation

95 (A)

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:

Due to the newly created system that pushes the current state-of-the-art to something which has not yet been seen or used in the optics industry, we think that a Grade A is appropriate. Also working together with Mr. Kredatus has been very productive and efficient despite the fact that he was doing his work over long distances (since we are in Zurich, Switzerland) without any troubles.

Signature of the reviewer: