

## I. IDENTIFICATION DATA

<b>Thesis name:</b>	<b>Periodic Scheduling with Precedence Constraints</b>
<b>Author's name:</b>	<b>Bc. Karolína Rezková</b>
<b>Type of thesis :</b>	master
<b>Faculty/Institute:</b>	Faculty of Electrical Engineering (FEE)
<b>Department:</b>	Department of Computer Sciences
<b>Thesis reviewer:</b>	Anna Minaeva
<b>Reviewer's department:</b>	n/a

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>challenging</b>
<i>Evaluation of thesis difficulty of assignment.</i>	
The assignment of this thesis is ambitious and challenging. The considered problem has been limitedly studied previously and although there are space for discovering theoretical properties of the problem, it requires quite some creativity and proper mathematical thinking. Also, considering optimalization version of the problem adds on this challenge.	

<b>Satisfaction of assignment</b>	<b>fulfilled with major objections</b>
<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>	
Most of the contributions of this thesis deal with the decision problem. The stated optimization problem was not addressed properly – nor from theoretical neither from practical view point.	

<b>Method of conception</b>	<b>outstanding</b>
<i>Assess that student has chosen correct approach or solution methods.</i>	
For the decision problem, proven theoretical results are outstanding for diploma thesis. Chosen practical approach for the decision problem is solid too.	

<b>Technical level</b>	<b>C - good.</b>
<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>	
Good technical level with the space for improvement.	

<b>Formal and language level, scope of thesis</b>	<b>C - good.</b>
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Especially in the first two chapters, the author provides problem description and properties clearly and soundly with only minor mistypings or explanation gaps. Later, the technical level becomes worse with major questions to the provided explanations. For example, it is not clear in Section 4.1.3 why missing this schedule in the queue candidates list will cause non-existence of feasible solution in the solution space? A clear definition of all the task and chains parameters would help to resolve this issue. A valid argument that “a small adjustment of the queue may result in no change in the schedule” does not influence conclusion that “this approach may not be able to find a feasible solution for every feasible instance”. In other words, current formulation does not reasonably explain why existing approach is not enough to solve the considered problem.	

<b>Selection of sources, citation correctness</b>	<b>C - good.</b>
<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>	

All the necessary related literature is addressed and cited correctly in the thesis. Although the description of the results can be broader (e.g. the concept of guillotine cuts is not explained properly). However, from the formal view point, existing results are used correctly and completely. Regarding distinguishing own results from the existing literature, I did not clearly understand the difference of the suggested approach for the optimization problem to work by Hladik, 2020.

### **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.*

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

Date: **13.6.2022**

Signature: