

I. IDENTIFICATION DATA

Thesis name:	Comparison of Methods for Matching of Images with Weakly Textured Areas
Author's name:	Ondřej Kafka
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Dept. of Cybernetics
Thesis reviewer:	Ondřej Chum
Reviewer's department:	Dept. of Cybernetics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
Matching of images of containing low-textured regions or different illumination conditions is an active topic in computer vision community. Obtaining ground-truth dataset, arranging the experiments and final evaluation is a challenging topic for a bachelor thesis.	

Satisfaction of assignment	fulfilled
<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>	
The goals were fulfilled. Useful conclusions were drawn, the results can be useful in future work.	

Method of conception	correct
<i>Assess that student has chosen correct approach or solution methods.</i>	
The approach chosen by the student seems correct.	

Technical level	A - excellent.
<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>	
The results of the thesis seem to be technically correct and valuable for future work.	

Formal and language level, scope of thesis	B - very good.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Most of the thesis is written in good English. However, a number of grammatical mistakes is present in the thesis. As a consequence, the manuscript is understandable, but not easy to read. It is a pity, spellchecking and / or proofreading would be a negligible effort compared to writing up the whole thesis in English. Examples. The abstract has two sentences, where the second does not have a verb. Sentences with a wrong word order, such as "Later in that chapter are introduced principles of SfM pipeline..." appear quite often throughout the thesis. Missing articles are a common problem to most of us.	

Selection of sources, citation correctness	A - excellent.
<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>	
There is an image matching benchmark https://github.com/ubc-vision/image-matching-benchmark with a corresponding publication Jin, Mishkin, Mishchuk, Matas, Fua, Yi & Tru: Image Matching Across Wide Baselines: From Paper to Practice. This work provides evaluation of various combinations of features, descriptors and matching strategies, submissions from public are evaluated too. This seems very relevant work that even originates from our department...	

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.

No additional comments.

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.

All the objectives were fulfilled and reasonable outcome was produced. The writing style requires some improvement. Overall, I believe the thesis still deserves the highest grade. I would like the student to relate the work in the thesis to the image-matching-benchmark project.

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

Date: **3.6.2021**

Signature: