THESIS SUPERVISOR'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Estimating object properties through robot manipulation - dataset and benchmark**
Author's name:	**Jiří Hartvich**
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Cybernetics
Thesis reviewer:	Mgr. Matěj Hoffmann, Ph.D.
Reviewer's department:	Department of Cybernetics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment **challenging**

How demanding was the assigned project?

The student had to conceive and develop from scratch a database of object models and their physical properties. This involved also pilot data collection on a real robot setup.

Fulfilment of assignment **fulfilled**

How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.

The assignment was fulfilled in all respects.

Activity and independence when creating final thesis **A - excellent.**

Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.

The student was regularly coming to the laboratory to work on the assignment, worked independently and consulted the status when needed.

Technical level **A - excellent.**

Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?

Given the diverse set of topics the student had to cover, all of them were adequately covered and described.

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

Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?

The thesis does not contain a lot of mathematical apparatus – which was not required. It is organized in a logical way and sufficiently extensive. There is a good number of schematics and visualizations that facilitate reading and understanding. English is very good.

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

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

The related work section is appropriate. Table 2.1 and Figs. 2.1 and 2.2 provide a new conceptualization and overview. Student's original work is clearly distinguished. Citations are correct.

Additional commentary and evaluation (optional)

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Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

This is an excellent Bachelor thesis. Moreover, it constitutes and important building block for CTU's participation in a European project (https://sites.google.com/view/ipalm). While working on the thesis, the student has already interacted with the international project partners.

The grade that I award for the thesis is **A - excellent.**

Date: **31.5.2022** Signature: