THESIS SUPERVISOR'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Real-time teleoperation of a robot arm for manipulating self-localization in human participants**
Author's name:	**Oleg Baryshnikov**
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of Computer Science
Thesis reviewer:	Doc. Mgr. Matěj Hoffmann, PhD; Sergiu Tcaci Popescu, PhD
Reviewer's department:	Department of Cybernetics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment **ordinarily challenging**

How demanding was the assigned project?

The student had to work with a real robot and a motion capture system. In addition, the software developed was for a psychological experiment with human participants. This would render the assignment challenging. However, this thesis was a follow-up on a previous MSc. thesis by Adam Rojík.

Fulfillment 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. Point 5, extension to 2D plane was also fulfilled – the prototype actually deals with 3D space.

Activity and independence when creating final thesis **C - good.**

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 working independently and coming regularly to the lab to work but the communication with the supervisors was not optimal – he could have communicated more. The time management was not great – some parts of the thesis were written up last minute and there was no time for iterating the text with the supervisors.

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?

The student delivered an application that meets the requirements, tested it and documented it. The supervisors are not experts on software engineering so we cannot properly assess these aspects.

Formal level and language level, scope of thesis **C - good.**

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 text is not perfect and suffers from the fact that it was partly a last minute effort. The English abstract contains references, which is not customary, and the Czech abstract is not without errors. More elaborate conclusion, discussion and future work would be desired.

Selection of sources, citation correctness **D - satisfactory.**

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?

Apart from links to software packages and repositories, there are only a few scientific articles cited. Unfortunately, some of these [1][2][5] are not cited correctly (some author names missing).

Additional commentary and evaluation (optional)

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

Summarize your opinion on the thesis and explain your final grading.

The grade that I award for the thesis is **B - very good.**

The student fulfilled the assignment and delivered a working, tested and documented piece of software that meets the requirements – it can be used to run experiments with a robot and human participants.
The student tried to understand the logic behind the psychological experiment.
We as the supervisors are not experts in software engineering – we could not assist the student in these aspects and are not qualified to judge them.

Date: **14.6.2024** Signature: