# CTU CZECH TECHNICAL UNIVERSITY IN PRAGUE

#### THESIS REVIEWER'S REPORT

#### I. IDENTIFICATION DATA

Thesis title: Design of a Hexapod Robot
Author's name: Octavio Javier Linares Calderon

**Type of thesis:** bachelor

Faculty/Institute: Faculty of Mechanical Engineering (FME)

**Department:** Department of Instrumentation and Control Engineering

**Thesis reviewer:** Ing. Stanislav Klusáček, Ph.D.

Reviewer's department: Department of Control and Instrumentation, FEEC, Brno University of Technology

#### II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment challenging

How demanding was the assigned project?

Conceptual design and implementation of mechanics, electronics, control of a hexapod robot and its practical verification was a challenging topic for a bachelor's thesis.

#### 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 submitted bachelor thesis contains a total of 43 pages. All assignment tasks were solved and fulfilled.

Methodology correct

Comment on the correctness of the approach and/or the solution methods.

The chosen approach led to a successful design and implementation and finally to successful testing. Limitations, design improvements or several of other technical improvements and recommendations was presented in the thesis.

Technical level C - good.

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

Technical level of the bachelor's thesis is appropriate to requirements. Nevertheless, I would notify low insufficient technical analysis in the design of the hexabot robot - deep technical research would be more useful and would yield better results for the final solution of the robot. There is also a lack of analysis of the electrical design.

#### Formal 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?

I have several objections to the descriptive rather than technical form of the text. The scope of the main chapters of the thesis corresponds to their importance. The tables and figures give an idea of the topic, but their quality is poor in several cases. The level of English is acceptable.

#### Selection of sources, citation correctness

C - good.

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?

Relevant sources are cited in the text and the literature is correctly referenced.

## CTU CZECH TECHNICAL UNIVERSITY IN PRAGUE

#### THESIS REVIEWER'S REPORT

#### 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.

Positive evaluation of the comprehensiveness of the bachelor thesis - the student demonstrated in his bachelor thesis the whole range of skills from 3D design, 3D printing to electrical engineering and programming skills.

### 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. Pose questions that should be answered during the presentation and defense of the student's work.

The bachelor thesis summarizes all the necessary information and fulfils all the required tasks of the thesis. The achieved results of the thesis testify to the abilities of the bachelor student. I recommend the thesis for defence.

The grade that I award for the thesis is C - good.

Date: **31.8.2021** Signature: