THESIS REVIEWER'S REPORT

I. IDENTIFICATION DATA

Thesis title:	**Možnosti vylepšení brzdového systému**
Author's name:	**Kishankumar Alpeshkumar Panchal**
Type of thesis :	bachelor
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Instrumentation and Control Engineering
Thesis reviewer:	Ing. Zdeněk Novák, Ph.D.
Reviewer's department:	Department of Instrumentation and Control Engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment — **ordinarily challenging**

How demanding was the assigned project?

The work is challenging enough

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 has been fulfilled

Methodology — **outstanding**

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

The chosen methodology is correct

Technical level — **A - excellent.**

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 thesis is at a high level.

Formal and language level, scope of thesis — **B - very 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?

There are minor errors and formal deficiencies in the thesis.
In Symbols and abbreviations there should be more symbols than 3. For example, on pages 4 to 6 there are unexplained abbreviations. Figure 1 on page 2 is apparently from a source but the caption lacks a reference to the citation.
There are some incorrect typos in the paper, e.g. on page 1 a typo with a full stop in the middle of a sentence or on page 4 the symbol for degree Celsius appears with the wrong _C in addition to the correct °C.

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 student has used a sufficient number of publications to solve a specific problem.

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.

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

In this thesis, the student designed a braking system where he considered different concepts for heat dissipation and summarized the advantages and disadvantages of a particular type. The design was carried out by numerical simulation in 3D FEM.
At the beginning, the student introduced the reader to the braking system and its importance and design. He conducted literature review from various publications.
He explained the model itself sufficiently and described the importance of parameter inputs for different materials. The results are promising, the student suggested the design of brake disc so that the heat dissipation is best.

I have the following questions about the thesis:

1. *In your work you deal with two materials, stainless steel and grey cast iron. Can we count on other materials in the future or is the research not going in this direction?*
2. *Are there brake systems that have cooling methods other than natural convection?*

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

Date: **29.8.2022** Signature: