

## I. IDENTIFICATION DATA

<b>Thesis title:</b>	<b>Model of frequency inverter for decreasing THD of generating signal</b>
<b>Author's name:</b>	<b>Vishal Ravi</b>
<b>Type of thesis :</b>	bachelor
<b>Faculty/Institute:</b>	Faculty of Mechanical Engineering (FME)
<b>Department:</b>	Department of Instrumentation and Control Engineering
<b>Thesis reviewer:</b>	Ing. Lubomír Musálek
<b>Reviewer's department:</b>	Department of Instrumentation and Control Engineering

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>ordinarily challenging</b>
<i>How demanding was the assigned project?</i>	
The work is ordinaly challenging enough.	

<b>Fulfilment of assignment</b>	<b>fulfilled</b>
<i>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.</i>	
The assignment has been fulfilled.	

<b>Activity and independence when creating final thesis</b>	<b>C - good.</b>
<i>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.</i>	
The student worked on the theoretical part independently, he had to be helped on the practical part, as he did not have real laboratories due to the Covid pandemic.	

<b>Technical level</b>	<b>C - good.</b>
<i>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?</i>	
The student created a model in the LT-Spice simulation program and then performed measurements. The measurements were processed in SW Matlab. For this reason, I rate the technical level of the work as average.	

<b>Formal level and language level, scope of thesis</b>	<b>B - very good.</b>
<i>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>	
From a formal point of view, the lever meets the requirements of the bachelor's thesis. I would change the order of chapters 4 and 3 for reasons of logical connection. In terms of language level and some non-technical expressions, the work is at a good level.	

<b>Selection of sources, citation correctness</b>	<b>A - excellent.</b>
<i>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?</i>	
The student used 23 citations. The citation are according to the ISO 690: 2011 standard.	

<b>Additional commentary and evaluation (optional)</b>
<i>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.</i>
Please insert your comments here.



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

*The student completed the assignment. In the first part, he described the theory of operation of frequency converters and the use of THD. From a technical point of view, the work is at a good level. From the point of view of the theoretical part, the student worked very independently. He was helped by the supervisor in the practical part, because he did not have many laboratory exercises during his studies due to non-contact teaching. As far as data processing and evaluation is concerned, he worked independently. There are some illogical results in the work. One of them is over 300% efficient. Furthermore, I would reproach the student that the title of the work is not the same as the title in the assignment. The student showed a willingness to learn new things. I recommend the work for defense.*

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

Date: **2.2.2023**

Signature: