

**I. IDENTIFICATION DATA**

<b>Thesis name:</b>	<b>POSITIONING OF THE DYNAMOMETER OF THE OPEN-LOOP TEST STAND</b>
<b>Author's name:</b>	<b>Surya Sharma</b>
<b>Type of thesis :</b>	master
<b>Faculty/Institute:</b>	Faculty of Mechanical Engineering (FME)
<b>Department:</b>	Department of Automotive, Combustion Engine and Railway Engineering
<b>Thesis reviewer:</b>	Ing. Ondřej Miláček
<b>Reviewer's department:</b>	Department of Automotive, Combustion Engine and Railway Engineering

**II. EVALUATION OF INDIVIDUAL CRITERIA**

<b>Assignment</b>	<b>easy</b>
<i>Evaluation of thesis difficulty of assignment.</i>	
The difficulty of the assignment is quite easy. Just few basic computations were needed.	

<b>Satisfaction of assignment</b>	<b>fulfilled with minor objections</b>
<i>Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.</i>	
According to the assignment all points were fulfilled with minor objections.	

<b>Method of conception</b>	<b>partially applicable</b>
<i>Assess that student has chosen correct approach or solution methods.</i>	
In most cases students approach was correct. But sometimes the method was not logic, e.g. the needed torque of the driving electromotor.	

<b>Technical level</b>	<b>E - sufficient.</b>
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
Technical level of this thesis is very easy. The same holds true also for the part dealing with mechanical design.	

<b>Formal and language level, scope of thesis</b>	<b>C - good.</b>
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Formal and language level of this thesis is sufficient. I miss in the text direct numbered links to all figures.	

<b>Selection of sources, citation correctness</b>	<b>C - good.</b>
<i>Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.</i>	
Citations of used literature are correct.	

<b>Additional commentary and evaluation</b>
<i>Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.</i>
Please insert your commentary (voluntary evaluation).



## REVIEWER'S OPINION OF FINAL THESIS

### III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

*Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.*

Missing signature in the assignment and in the declaration (page 4).

Page 76:

As chosen material for the stepper motor holder was chosen "Aluminum alloy steel 6061", which is nonsense!

Appendix:

I miss in your thesis a CD with electronic data of your thesis, e.g. 3D model, drawings.

Mechanical design of the **stepper motor holder**:

I suppose that your two aluminum plates will be produced by EDM or laser cutting technology. I miss here prepared \*.dxf files for this purpose. Or what production technology do you propose for these parts?

You wrote that your parts will be finally welded. I miss the drawing of the assembly including the welding parameters description.

In your "Draw-wire sensor assembly" drawing I was very surprised, that you have stated there dimensions of a standardized screws M5. Or do you use some special screw M3 and M5?

In both your assembly drawings I miss the cross section of final position. You have there only an exploded view!

Furthermore, all your drawings are printed with wrong scale. This is not possible!!!

This thesis could be nice bachelor thesis.

I evaluate handed thesis with classification grade **E - sufficient**.

#### Questions:

Page 39:

**Electromotor torque demands measurement** – you wrote that you observed the leadscrew rotation by **2 Nm**. This is, according to my opinion, the minimum torque needed to overrule passive resistances to move the dynamometer. Please explain your further measurement till **5,7 Nm**. How is possible that at this torque value the leadscrew rotation stopped?

Why did you choose an electromotor with rated torque 2,8 Nm if you measured maximal torque 5,6 Nm?

Date: **19.8.2021**

Signature: