

## I. IDENTIFICATION DATA

<b>Thesis name:</b>	<b>Improvement of the existing test stands</b>
<b>Author's name:</b>	<b>Raghavendar Balaji</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 supervisor:</b>	Gabriela Achtenová
<b>Supervisor's department:</b>	Department of Automotive, Combustion Engine and Railway Engineering

## II. EVALUATION OF INDIVIDUAL CRITERIA

<b>Assignment</b>	<b>challenging</b>
<i>Evaluation of thesis difficulty of assignment.</i>	
The assignment covers three completely different measurement tasks in the laboratories. The student needs to acquire the theoretical knowledge of every assignment, choose the right approach, choose the right components, and assemble and program the data acquisition. When waiting on purchased components several times, he could not go further with one task, he needed to switch to another one not to lose the time, and then switch back.	

<b>Satisfaction of assignment</b>	<b>fulfilled</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>	
The assignment is fully fulfilled.	

<b>Activity and independence when creating final thesis</b>	<b>A - excellent.</b>
<i>Assess that student had positive approach, time limits were met, conception was regularly consulted and was well prepared for consultations. Assess student's ability to work independently.</i>	
Raghavendar had nice approach, if he needed some help. He was not aggressive, but empathic. He did not bother with many small stupid questions, but he was capable to think over a problem and he requested the consultations, when he had prepared solutions and a decision was needed. His solutions were chosen with an engineer manner.	

<b>Technical level</b>	<b>C - good.</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>	
I highly appreciate the capability of Raghavendar to prepare the PCB. This task is not a standard task which the mechanical engineers are ready solve. Concerning the report I would have following remarks: P 23: Raghavendar chose at the beginning of his work one sensor fabricated in USA. The delivery time was in several weeks. After waiting time of more than 2 months the order was cancelled. I regret Raghavendar did not mention the situation in his thesis, while it can be warning for his successors. P 33+34: I have no idea what is here compared. No units on Figures 29 and 30. In the Raghavendar's window are 9 output values, in the Catia window are just 6. What I miss is the obtention of the main moments of inertia passing through COG for the object hung arbitrary. P 45: I do not understand while just the positive signals are taken into account? If both signals – positive and negative - would be taken into account would it not lead to doubled precision? P 65: What is the reason that a power source with a force more than 4 times bigger than the actual actuator is chosen?	

<b>Formal and language level, scope of thesis</b>	<b>A - excellent.</b>
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
The diploma thesis is written in good English, organized in logical and well-arranged way. The annexes clearly show step by step approach for next successors and users of newly designed equipment and newly proposed measurement task.	

**Selection of sources, citation correctness****A - excellent.**

*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.*

Raghavendar used 37 references. It is hard to say if they are all cited in the work, while the way of upper indexes complicates the visibility. Anyhow the references have all needed identifiers.

**Additional commentary and evaluation**

*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.*

None.

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

*Summarize thesis aspects that swayed your final evaluation.*

I like Raghavendar's universality. The thesis report was prepared rigorously. Raghavendar proved his big responsibility and engineering approach. I regret he did not want to continue for PhD studies. I wish him success in the future work.

I evaluate handed thesis with classification grade **B - very good**.

Date: 28.1.2019

Signature: