

I. IDENTIFICATION DATA

Thesis name:	Advanced cruise control development and validation for in-wheel motor-based powertrain
Author's name:	Kevin Régis Mbenza Mbuambua
Type of thesis :	master
Faculty/Institute:	Faculty of Mechanical Engineering (FME)
Department:	Department of Automotive, Combustion Engine, and Railway Engineering
Thesis supervisor:	Rastislav Toman
Supervisor's department:	Department of Automotive, Combustion Engine, and Railway Engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment <i>Evaluation of thesis difficulty of assignment.</i>	challenging
The thesis assignment combines a theoretical research with a challenging practical part. The theoretical research aims to study the cruise control's state-of-the-art and to define the requirements for a cruise control strategy. The practical part then covers a complete design, modelling, and verification of a cruise control software module for an in-wheel based powertrain. Therefore, I find the assignment challenging.	
Satisfaction of assignment <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>	fulfilled with minor objections
The assignment was fulfilled with minor objections, because the 5 th point of the thesis assignment states also a verification applying the HIL tests. Other tests (Unit-test and MIL) were presented.	
Activity and independence when creating final thesis <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>	A - excellent.
The student was very active and independent during his thesis creation, fulfilling all his time limits and agreed deadlines.	
Technical level <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>	A - excellent.
The technical level of the thesis is excellent. The literature research on cruise control software problems, challenges, and solutions is accurate. The knowledge gained from the study and company experience were properly used in the practical part of the thesis. The practical part introduces a very thorough derivation of used formulas and technical description of different cruise control levels.	
Formal and language level, scope of thesis <i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	B - very good.
The thesis's formal and language level is very good. The text is well arranged and logically divided into different sections or chapters, although it contains some small typos and is sometimes a bit clumsy. The thesis length is standard.	
Selection of sources, citation correctness <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>	A - excellent.
Student uses relevant and current sources: scientific papers and publications. All the citations are distinguished from the student's original ideas, therefore the citation ethics has not been breached.	

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.

Please insert your commentary (voluntary evaluation).

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

The student proved with his master thesis his technical competence and ability of theoretical knowledge application during the development and verification of an advanced cruise control software module for an in-wheel based powertrain.

The thesis's overall complexity and high level of execution of different sub-tasks render the final classification grade of excellent.

I evaluate handed thesis with classification grade **A - excellent**.

Date: **1.9.2018**

Signature: