# SUPERVISOR'S OPINION OF FINAL THESIS

## I. IDENTIFICATION DATA

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|---|---|
| **Thesis name:** | H2 optimal control algorithms for vehicle control |
| **Author's name:** | **Bc. David Vošahlík** |
| **Type of thesis :** | master |
| **Faculty/Institute:** | Faculty of Electrical Engineering (FEE) |
| **Department:** | Department of Control Engineering |
| **Thesis supervisor:** | Ing. Tomáš Haniš, Ph.D. |
| **Supervisor's department:** | Department of Control Engineering |

## II. EVALUATION OF INDIVIDUAL CRITERIA

**Assignment**                                                                                    **challenging**
*Evaluation of thesis difficulty of assignment.*
The thesis top is new traction control system development. The vehicle dynamics and namely the wheel traction dynamics involves highly non-linear and uncertain physics.

**Satisfaction of assignment**                                                              **fulfilled**
*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.*
All points of assignment were fulfilled.

**Activity and independence when creating final thesis**                    **A - excellent.**
*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.*
Student was working in independent manner with regular meetings and discussions

**Technical level**                                                                              **A - excellent.**
*Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.*
Student demonstrated ability to gain necessary domain specific knowledge, both by independent study and discussions. On top of that, David manage to deploy H2 optimal techniques for traction control system design.

**Formal and language level, scope of thesis**                                      **C - good.**
*Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.*
The thesis is written in English language with adequate technical level.

**Selection of sources, citation correctness**                                      **B - very good.**
*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.*
Student perform literature survey in order to gain needed knowledge including journal papers.

**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.*
The thesis fully answer all questions rising from the assignment.

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

*David manage to deal with this challenging topic and deliver solid diploma thesis answering all fundamental questions rising from the assignment. He demonstrated capability to work independently as well as cooperate with Ph.D. students and colleagues master students on overlapping topics and issues. David presented the results on his work on international control conference PCC 2019 and submitted his results to one of the most significant conference in domain IFAC world congress 2020.*

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

Date: **27.1.2020**                    Signature: