

## SUPERVISOR'S OPINION OF FINAL THESIS

#### I. IDENTIFICATION DATA

Thesis name: Hierarchical Model Predictive Controlfor the Dynamical Power Split of aFuel

Cell Hybrid Vehicle.

Author's name: Daniel Klöser

**Type of thesis:** master

Faculty/Institute: Faculty of Electrical Engineering (FEE)

**Department:** Department of Cybernetics **Thesis supervisor:** Ing. Martin Hlinovský, Ph.D.

**Supervisor's department:** Czech Technical University in Prague, Department of Control

Engineering

#### **II. EVALUATION OF INDIVIDUAL CRITERIA**

Assignment challenging

Evaluation of thesis difficulty of assignment.

#### 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.

The student applied state-of-art methods in modelling and controller design in order to solve the presented problem.

#### 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.

Daniel worked with a lot a motivation and perseverance during the complete working time of his master thesis. He was able to work very independently and required minimal assistance from the supervisors.

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.

His attention to detail, ability to source excellent literature and vast array of own ideas all contributed to the excellent solutions presented. The resulting work clearly presents an engineering advance in this research area and exceeded to envisioned goal of this task..

#### Formal and language level, scope of thesis

A - excellent.

Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.

The student produced a scientifically accurate and well written thesis. It documents all relevant work and results, and clearly shows the engineering relevance and excellence of his work.

### 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.

Student has displayed ability to work with international scientific publications as well as industrial level publications and information.

#### Additional commentary and evaluation



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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

Summarize thesis aspects that swayed your final evaluation.

I evaluate handed thesis with classification grade A - excellent.

Date: 10.6.2019 Signature: Ing. Martin Hlinovsky, Ph.D.