SUPERVISOR'S OPINION OF FINAL THESIS

I. IDENTIFICATION DATA

Thesis name:	**Time-predictable GPU execution**
Author's name:	**Flavio Kreiliger**
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Department of control engineering
Thesis supervisor:	Ing. Joel Matějka
Supervisor's department:	Department of control engineering

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging

Evaluation of thesis difficulty of assignment.

Lack of the required documentation for the given platform and scope of experiments performed in the frame of the thesis makes the assignment challenging.

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 assignment was 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.

The student was continuously working on the thesis since last summer, he was always well prepared for regular consultations.

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.

In the thesis, the student has connected knowledge gained by the study of multiple courses, especially real-time systems, computer architectures, or computer vision. Moreover, it was necessary to learn a lot from CUDA programming guides, available documentation, and state-of-the-art research papers.

Formal and language level, scope of thesis	A - excellent.

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

Formal and language level and the scope of the thesis are fine.

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.

The study materials were composed mostly of state-of-the-art research papers and NVIDIA documentation (CUDA, TX2 platform). Since NVIDIA does not provide so many details about their products, it was difficult to find out and understand a lot of principles and mechanisms required to achieve desired results. Bibliographic citations are complete and in accordance with citation convention and standards.

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.

Parts of the thesis were submitted and accepted at OSPERT 2019 workshop (satellite workshop of the Euromicro Conference on Real-Time Systems 2019) and will be published in July 2019. Moreover, the results will be used in the THERMAC – Horizon 2020 project.

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation.

The student worked on the thesis independently for about one year and achieved all goals which were set. The student had to show a deep knowledge of computer architectures, operating systems as well as real-time scheduling. Moreover, he managed to publish part of the thesis at OSPERT workshop.

I evaluate handed thesis with classification grade A - excellent.

Date: May 30, 2019   Signature: