

## SUPERVISOR'S OPINION OF FINAL THESIS

#### I. IDENTIFICATION DATA

Thesis name: Cooperation of Home Automatization Systems with Sensors in IoT network

Author's name: Phuc Trinh Gia

**Type of thesis:** master

Faculty/Institute: Faculty of Electrical Engineering (FEE)

**Department:** Department of Circuit Theory **Thesis supervisor:** Ing. Zbyněk Kocur, Ph.D.

**Supervisor's department:** Department of Telecommunication Engineering

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

## Assignment ordinarily challenging

Evaluation of thesis difficulty of assignment.

The difficulty of the thesis is proportional to the student's knowledge of the master's degree. The work is focused to very promising IoT networks and the student had to use his knowledge of HW and SW of communication networks.

#### Satisfaction of assignment

#### fulfilled with minor objections

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 main task of the student was to design a system for connecting the local communication interface to an intelligent electricity meter and home automation system using some of the available IoT networks. Then implement the proposed interconnection system for selected technologies and standards - IEC 62065-21, LoRaWAN and KNX.

The student had to study the available standards and create SW for both the LoRaWAN and KNX server as well as the embedded meter reading system using the optical interface.

Finally, test and document everything.

### Activity and independence when creating final thesis

C - good.

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 worked mostly independently. Working with documentation and standards did not trouble him. He was able to implement most requested things yourself. The problem has been the understanding of the cooperation of several diverse systems. In the end, he managed everything successfully.

#### Technical level B - very good.

Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.

The student managed well with all information sources and was able to use them effectively and efficiently in the creation of the developed solution.

## Formal and language level, scope of thesis

C - good.

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

The work itself is well written. The student has used a lot of foreign resources, especially from standards, websites and other online resources. Image links are not always well managed. Linguistically, work is average. The list of used references does not fully meet the required standard.

#### Selection of sources, citation correctness

C - 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.



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The work was focused on developing standards-based solutions. Usually, the chosen solution and design corresponds to the input requirements. The main sources were publicly available standards and source codes.

## 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

Summarize thesis aspects that swayed your final evaluation.

The technical part of the master thesis is elaborated solidly. However, the processing itself is worse and therefore the final grade C was evaluated.

I evaluate handed thesis with classification grade C - good.

Date: **10.6.2019** Signature: