# CTU CZECH TECHNICAL UNIVERSITY IN PRAGUE

### THESIS REVIEWER'S REPORT

#### I. IDENTIFICATION DATA

Thesis title: Voltage Regulation in The Lighting Nodes of the Electrical Workshop

Author's name: Gennadii Safonov

**Type of thesis:** master

Faculty/Institute: Faculty of Electrical Engineering (FEE)

**Department:** Department of Economics, Management and Humanities

Thesis reviewer: Lubomír Musálek

**Reviewer's department:** Department of Instrumentation and Control Engineering

#### II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment challenging

How demanding was the assigned project?

#### **Fulfilment of assignment**

fulfilled

How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.

The student fulfilled the assignment.

Methodology outstanding

Comment on the correctness of the approach and/or the solution methods.

The student first described the methods that cause a voltage drop in the distribution network. He then described the possible solutions and finally evaluated them economically. For this reason, the student used the correct procedure.

Technical level B - very good.

Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?

The thesis is technically correct. The work finds an interesting solution to the effect of voltage drop on luminaires.

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

A - excellent.

Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?

The work contains a minimum of grammatical errors. The work is readable and well divided into chapters and paragraphs.

#### Selection of sources, citation correctness

A - excellent.

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

The student used 44 citations. The citation are according to the ISO 690: 2011 standard.

## Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

Please insert your comments here.

# THESIS REVIEWER'S REPORT



# III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

The student fulfilled the assignment.

The diploma thesis deals with the solution of the problem of voltage drop and its influence on the lighting intensity of luminaires.

In the first part, the student focuses on the reasons for the voltage drop in the distribution network. This part is well done.

In the second part, the thesis deals with the possibilities of eliminating voltage drop using various components.

The technical and economic advantages and disadvantages of individual solutions were described here.

In the third part, the diploma thesis deals with the economic evaluation of individual solutions and then the most suitable solution is selected. It is interesting that without subsidy economic funds, not a single solution will pay off. However, which the student mentions in the conclusion and counts on state support for the project.

The work is readable and well structured.

I recommend the thesis for defense.

The grade that I award for the thesis is A - excellent.

Date: **21.6.2022** Signature: