

REVIEWER'S OPINION OF FINAL THESIS

I. IDENTIFICATION DATA

Thesis name: Design of an Automated Control System for Subway Escalators

Author's name: Bc. David Hoyos Posada

Type of thesis: master

Faculty/Institute: Faculty of Transportation Sciences (FTS) **Department:** Department of Transport Telematics

Thesis reviewer: Ing. Petr Vondráček

Reviewer's department: Dopravní podnik hlavního města Prahy, a. s.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment challenging

Evaluation of thesis difficulty of assignment.

The proposed Master Thesis deals with the design and application automated control system from removing waiting queues before entering escalators. This system, based on pedestrian detection technologies, is applied in the Prague metro station I. P. Pavlova. In this area, it is very difficult to orientate so as not to violate any of the regulations and standards.

Satisfaction of assignment

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 fulfilled the prescribed assignment. The thesis deals with the environment analysis, describes individual parts of the escalator, and proposes a management system including its application.

Method of conception partially applicable

Assess that student has chosen correct approach or solution methods.

The student has neglected the basic standard for escalators EN 115-1. However, he quotes EN 115-2. The transport capacity from Chapter 3.2.1. is not realistic according to EN 115-1. The student's resulting values are divergent with reality. The calculated transport capacity reported by student is 124 pedestrians, but the standard is defined only by 75. At a higher load, the escalator will stop. The critical flow considered in point 5.1 is so erroneous.

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.

From the work, the technical level of the student is obvious. However, the subject of the thesis requires a deeper knowledge of escalator technology and above all valid standards in the Czech Republic.

Formal and language level, scope of thesis

B - very good.

fulfilled

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

The thesis is written comprehensibly without grammatical mistakes. However, there are some typos mistakes (missing full-stops in sentences). Some tables and figures are not referred in the text of the thesis with their exact number. Numbers in tables are not consistent in rounding (there are numbers in tables without rounding with nine decimal places).

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.

This diploma thesis lacks Czech standards, and EN 115-1, which deals with the design of escalators. However, the quoted sources are correct and the student has worked well with the information.



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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.
In spite of various small shortcoming, stated in the review above, I recommend that the presented Master Thesis be graded as B, i.e, as very good

I evaluate handed thesis with classification grade B - very good.

Date: 15.6.2017

Signature: