

I. IDENTIFICATION DATA

Thesis title:	Model of control and information on a stretch of road using data from ATC and FCD.
Author's name:	Bc. Adam Ulanovský.
Type of thesis :	master
Faculty/Institute:	Faculty of Transportation Sciences (FTS)
Department:	Department of Transport Telematics
Thesis reviewer:	Doc. Ing. Bc. Tomáš Tichý, Ph.D., MBA
Reviewer's department:	Department of Transport Telematics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	challenging
<i>How demanding was the assigned project?</i>	
The master work dealt with the issue of collecting and evaluating traffic engineering data on the highway. The goal of the work was to analyse the data on a selected section of the D5 motorway, and compare the measured data with stationary detectors managed by the ŘSD and check the usability of FCD information for the use of traffic management in the selected section.	

Fulfilment of assignment	fulfilled with minor objections
<i>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.</i>	
The master work met the basic points of the assignment except for the actual verification of data in the simulation. The secured data from stationary counters proved to be elementally unsuitable for control, as the values are provided in a 1h raster. Data from the FCD also proved to be problematic with respect to section lengths and data penetration and distribution over time. The work focused more on the actual data processing and the search for usability for subsequent use in the management model.	

Activity and independence when creating final thesis	D - satisfactory.
<i>Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.</i>	
The student approached his work too freely, and therefore the deadline for submitting the work was postponed. The supervisor has recommended more advisable to consult the work in time, including its preparation and own solution. Despite the requirements, some points were not tightened and some of the parts that the graduate had to do were solved before the deadline submission, and thus the work could have been of better quality. The graduate should place more emphasis on the presentation of his work.	

Technical level	C - good.
<i>Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?</i>	
The professional level corresponds to the requirements of the work, although in some parts of the work and chapters it would be good to pay attention to the use of technical terms and correct descriptions.	

Formal level and language level, scope of thesis	C - good.
<i>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?</i>	
The correct descriptions and references and citations were chosen. However, some paragraphs are more descriptive and deserve to be more concretized and chosen appropriate wording in English. The thesis tends to choose a more general description and wording, even in professional sections and interpretations, including occasional inaccuracies and incomprehensibility.	

Selection of sources, citation correctness**B - very good.**

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?

With regard to the assignment, the literature and references containing the issue were used. It is mostly clear from the citations what is the work itself and what is taken over.

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.

The student described the theoretical part very nicely in terms of the use of detectors, but it would be appropriate to describe the more applicable mathematical approaches to the subsequent processing of data. On the other hand, suitable recommendations are given for further follow-up work using data from motorways.

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

The student could approach his diploma thesis a little more actively and especially in a more intensive longer period. The thesis addresses the current issues of using appropriate traffic engineering data, FCD and potential other information in potential driving on a selected section of the D5 motorway. The work reflects the requirements for the scope and essential, except for the use of simulation approaches, which can be followed by further work. The conclusions and outputs are applicable especially for the ŘSD (Directorate of Roads and Motorways) organization, which has detectors, data and information on the highway in its administration. The overall mark reflects a comprehensive approach to the topic, work on the project and, of course, most of all the elaboration of one's own diploma thesis and presentation of results.

The grade that I award for the thesis is **C - good**.

Date: **10.12.2020**

Signature:

