

I. IDENTIFICATION DATA

Thesis name:	Modeling of Convoy Driving Behavior
Author's name:	Bc. Václav Kroupar
Type of thesis :	master
Faculty/Institute:	Faculty of Transportation Sciences (FTS)
Department:	K620 - Department of Transport Telematics
Thesis reviewer:	doc. Ing. Stanislav Novotný, Ph.D.
Reviewer's department:	K616 - Department of Vehicles

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	ordinarily challenging
<i>Evaluation of thesis difficulty of assignment.</i>	
Assignment difficulty meets the requirements for the master thesis in the current field.	

Satisfaction of assignment	fulfilled
<i>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.</i>	
All goals set in thesis assignment were met and described in sufficient details.	

Method of conception	correct
<i>Assess that student has chosen correct approach or solution methods.</i>	
Approach chosen to address the thesis topic is correct and fulfills all of the thesis requirements.	

Technical level	B - very good.
<i>Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.</i>	
It is clear that author studied the problematics in depth. Construction of the simulation and data analysis was done in the programming languages which required the author invests an extra time and self-learning, however, some methods, selected technics are questionable. Selection of the tool for data preprocessing using SQL queries may be slow and computationally demanding if a big data set is processed. It is clear that author applied knowledge gained from different courses of his studies in order to fulfill thesis requirements.	

Formal and language level, scope of thesis	D - satisfactory.
<i>Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.</i>	
Work fulfills the minimal page limit.	
(+) (-) (-) (-) (-) (-) (-)	
Thesis is well structured and chapters order is consequent.	
Considerable amount of grammar mistakes, wrong syntax and typos complicates the understanding of author's ideas.	
Equations listed in chapter 3 are inconsistent - it is impossible to track the derivation of subsequent equation from the previous one without additional data author hasn't included.	
Code listed in Listing 4.1 does not reproduce the result shown on Figure 4.1	
Figures starting from 5.5 and further do not have the same scale which makes it hard to understand (compare) the results.	
Figure referenced in chapter 5.3 does not correlate with an actual figure.	
Table 5.1 and Figure 5.3 have different values of <i>corr</i> .	

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.

(+) The reference list is sufficiently big.

(+) The references are properly listed.

(-) Book references do not have page or chapter number.

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.

III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.

The thesis is well-structured and properly formatted, author had to do a comprehensive study of the data form the experiment, he had to apply novel knowledge and tools which are not taught at the faculty. The implementation of the code is clean and easy to understand, however, formal aspects of the work, such as grammar mistakes, mistypes, sentence structure, errors in references, uncorrelated values in figures and tables, affect the overall quality of the thesis. Some descriptions of data or process could be described in better details or using different method (pseudocode, flow diagrams, etc.).

Questions:

1. What kind of measures and additional equipment can be used to obtain better data sets for validation of the model?
2. What other car-following models do you know, what are their advantages / disadvantages?
3. What other methods, software, can be used to find global/local maximum/minimum; was any of them considered or tried during the work on the thesis?

I evaluate handed thesis with classification grade **C - good**.

Date: **8.1.2018**

Signature: