Tomas Bata University in Zlín
Faculty of Applied Informatics

OPPONENT´S EVALUATION OF THE MASTER´S THESIS

Student: **Bc. Tomáš Míča** **Supervisor:** **Ing. Pavel Vařacha, Ph. D.**

Study program: Master's Program in Engineering
Academic year: **2022/2023**

Master's Thesis topic: TRANSIT SIGNAL PRIORITY ON EVROPSKÁ STREETIN PRAGUE

Evaluation:	**A**	**B**	**C**	**D**	**E**	**F**
	Evaluation: A – Best; F - Unsatisfactory					
1. Fulfilment of all points of the assignment	☒	☐	☐	☐	☐	☐
2. Suitability of chosen resolution methods	☒	☐	☐	☐	☐	☐
3. Division of work (chapters, subchapters, paragraphs)	☒	☐	☐	☐	☐	☐
4. Working with literature and citations	☐	☒	☐	☐	☐	☐
5. Level of linguistic elaboration	☒	☐	☐	☐	☐	☐
6. Formal level of work	☒	☐	☐	☐	☐	☐
7. Theoretical part elaboration quality	☐	☒	☐	☐	☐	☐
8. Practical part elaboration quality	☒	☐	☐	☐	☐	☐
9. Achieved results of the work	☒	☐	☐	☐	☐	☐
10. Contribution of the thesis and its exploitation	☒	☐	☐	☐	☐	☐

Overall evaluation of the thesis:
The resulting mark is not the average of all of the abovementioned evaluations. The mark is awarded by the thesis supervisor according to their deliberations and the ECTS classification scale:
A – Excellent, B – Very good, C – Good, D – Satisfactory, E – Sufficient, F – Insufficient.
Grade F also means "I do not recommend this thesis for defence."

I recommend this diploma thesis for its defence and suggest the following evaluation:

Select grade: A.

In the case of an "F – Insufficient" grade, provide comments and the shortages of the thesis and the reasons for this assessment.

The thesis on the evaluation and improvement of the Transit Signal Priority (TSP) system on Evropská Street in Prague presents a commendable research effort that provides valuable insights into the effectiveness of TSP strategies. As an opponent, I have carefully examined the thesis and find it to be a well-executed study with several notable strengths. The following positive evaluation highlights the key merits of the thesis:

1. Clear Objectives and Scope: The thesis clearly outlines its objectives, focusing on evaluating the existing TSP system on Evropská Street and proposing potential improvements. The scope of the study is appropriately defined, incorporating the development of VISSIM microsimulation models and considering relevant factors such as infrastructure, traffic volumes, and future tramway extensions.

2. Robust Methodology: The author employs a rigorous methodology throughout the research process. The creation of four simulation models, accounting for different scenarios and timeframes, demonstrates a thoughtful approach to capturing the complex dynamics of Evropská Street. The inclusion of diverse traffic volumes and the evaluation of multiple TSP scenarios contribute to the reliability of the analysis.
3. Insightful Data Analysis and Findings: The thesis presents a comprehensive analysis of the simulation model outputs, comparing travel times across different transportation modes and calculating potential travel time savings. The findings are effectively organized and provide evidence supporting the benefits of implementing TSP measures on Evropská Street.
4. Practical Recommendations: Building on the evaluation and analysis, the thesis provides practical recommendations for implementing TSP measures on Evropská Street. These recommendations are grounded in the study's findings and offer valuable guidance for policymakers and transportation authorities in enhancing the quality of service and efficiency of the public transit system.
5. Clear and Coherent Presentation: The thesis is written in a clear and concise manner, effectively conveying complex ideas. The logical structure and coherent flow of information make it easy for readers to understand the research process and comprehend the implications of the findings.

In conclusion, the thesis on the evaluation and improvement of the Transit Signal Priority system on Evropská Street in Prague represents a commendable research effort. The comprehensive analysis, robust methodology, and practical recommendations contribute significantly to the field of traffic control and urban transportation. The thesis demonstrates the author's competence in conducting research and offers valuable insights for further enhancing the TSP system.

Question: Questions: Elaborate on possible future uses of artificial intelligence and the Internet of Things in cars for intelligent intersection management in the near future.

Date: 10. 5. 2023 Thesis Supervisor´s Signature: