



## Two new methods of solving the vehicle platooning problem, their evaluation and comparison

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During recent years the problem of fuel-saving on transport becomes one of the problems that define the development in many areas connected to transportation. One of the possible solutions is vehicle platooning. Aim of this work is to introduce and evaluate two methods of solving vehicle platooning problem: Shortest Paths Method and Alternative Paths Method. Basing on the previous research, these methods introduce two different ways of solving problem: direct search for the best path using shortest path finding for all way points in Shortest Paths Method and selecting the best path from generated alternative paths in case of Alternative Paths Method. During the work, both methods were tested on the same data set in order to investigate and compare their effectiveness, compare their performance and understand their possible future use. After tests being performed, Shortest Paths Method appeared to be more effective and faster comparing to Alternative Paths Method. But despite the difference in effectiveness, Alternative Paths Method still provides unique results – it finds solutions in cases where the Shortest Paths Method could not. Both development and evaluation have been performed using Neo4j Database and R Language.

Dienstag, den 14.02.2017, 10 Uhr s.t. im  
Besprechungsraum 106, Ifl, Julius-Albert-Straße 4