

Assessment of bachelor's thesis as supervisor

Title: **Platooning with Low-Cost Sensors**

Author: **Miodrag Ignjatović**

Supervisor: **Dr. Gaël Écorchard**

Fulfilment of Assigned Tasks

All the tasks that were possible to achieve have been fulfilled. One of the tasks concerning the use of GPS data could not be realized for practical reasons and because of the failure of other students working in parallel.

Resolution Methods

The student used the suggested method for the robot relative localization. The method was then adapted by him in order to improve its accuracy. The student then independently researched references about control law and path following for our use case and implemented the found algorithms.

Obtained Results

Both the reactive algorithm and the path planning algorithms show good results. The results of the path planning algorithm are especially promising though the behavior of the algorithm at hard corners is still open for improvements. It is also regretful that the results are not shown in a more quantitative manner. The implemented methods were tested mainly in a simulated environment. What is not shown in the thesis is that the student did also implement the methods on real robots. These results are given on the attached CD in the form of videos but there is no quantitative assessment of the methods applied on real robots, what would have been a big positive point beyond the assigned tasks.

General Comments and Conclusion

Student Miodrag Ignjatović worked almost autonomously on his thesis' subject. A lot of good work has been achieved but it was sometimes difficult to receive some feedback from the student. Some of the planned meetings were even missed by the student. The overall quality of the thesis could have been improved if the student had spent more energy on the subject since its beginning. The only question I have regarding this work is how good in terms of deviation from the guide's path and distance to the guide are the algorithms.

As a conclusion, I advise the commission to evaluate the presented bachelor's thesis with the grade

B - Very Good

Prague, February 3, 2017

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