

Master thesis evaluation
“Visual Localisation and Navigation in Changing
Environments”

Author: Leonard Mentzl

Opponent: Keerthy Kusumam

The thesis provides an exhaustive, elaborate and deep evaluation of approaches capable of localisation and navigation of autonomous vehicles in changing environments. The assignment was challenging because the topic is still investigated in scientific literature, and its fulfilment required the implementation of several methods on diverse datasets concerning two different tasks.

The thesis is very well motivated, easy to read and well structured. The related work section is very elaborate and excellently written both in depth and breadth. Due to the excellent introduction, the working principles of the methods investigated are well introduced and described. The framework and the processing pipeline is very well portrayed, which further improves comprehension of the work done. Excellent presentation of the available data allows to quickly summarise the critical properties of the most popular datasets in relation to the problem investigated. Based on the survey, the student decided to collect a dataset especially suitable for the problem investigated. The mathematical notations significantly contribute to the understanding of the problem and the way the methods were evaluated. The language is excellent, and the writing is clear, concise and to the point. The overall text clearly shows that the student understands the problem very well and that he is able to contribute to state the art. Moreover, the results show that he contributed a significant effort to complete the challenging assignment of the thesis.

Therefore, I propose to classify the thesis as

A - excellent.

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Keerthy Kusumam
University of Nottingham, UK