

2021 T1 Final Examination

05 May 2021

The exam is worth 40% of the total course marks

Time allowed: 24 hours (see details below)

EXAM TASK

You are required to read an assigned scientific paper and **write a 2 page commentary** on it based on the instructions below. You will then submit the commentary as a **PDF-file**

Write your commentary on the given scientific paper using the template provided.

Specifically, your commentary must have the indicated four sections, covering the following:

1. Introduction: Summarise the problem addressed in the paper. Describe what the authors aim to solve and why that is important. Also describe who will benefit if the problem can indeed be solved and what difference it will make to the current practice in the field.

2. Methods: Summarise the methods used in the paper and comment on them. Describe what kind of computer vision methods were chosen and why. Also describe, based on what you have learned in the course, whether you think the authors made the right choices or whether other methods could have done a better job, and what are the strengths and weaknesses of the methods used.

3. Results: Summarise the experimental results presented in the paper and comment on them. Describe the evaluation strategy used and the main findings. Also comment on whether you think these findings will convince potential users to adopt the proposed method, or what other experiments could have been conducted to make a more convincing case.

4. Conclusions: Summarise your assessment of the paper. Describe what you believe are the strengths (what was done well) and weaknesses (what could have been done better). Also discuss what are the remaining issues that still need to be addressed before the problem stated in the introduction can be considered solved and give your recommendations for future research.

References: List the literature references you have used in writing your commentary. This section is not mandatory and will not attract marks, but if you have used other works to better understand the problem and come up with possible alternative solutions, and especially if you rely on them in making any claims in your commentary, you should list those works.

ASSESSMENT

Sections 1-4 (not including the References section) are equally important and worth 8 marks each, adding up to 32 marks. The remaining 8 marks of the total 40 marks for the exam are for overall quality of the presentation, such as readability and adhering to the guidelines (below).

GUIDELINES

- Make sure your writing is **easy to read and understand**. Write in clear English, avoid long and complex sentences, and clarify any terminology not used in the paper or in the course. At the very least, run a spelling and grammar checker before submitting your commentary.
- **Use the provided template and nothing else.** Specifically, do not change the given section headings, page or column margins, font type (Times New Roman), font size (10 points for the

main text), etc. To facilitate marking, it is important that you use the format provided.

- **Respect the limits indicated in the template** regarding the length of the sections and the complete commentary. The sections are not required to be all the same length. Some sections may be longer than others, provided each section is at least half a column, and the entire commentary (excluding the references) is **no longer than 2 pages**. Anything over the limit will not be assessed. While the indicated limits in principle allow you to submit a commentary of just 1 page, it is unlikely that you can cover all important points in such little space. Use the available space wisely.
- Given the mentioned space limits, **the use of subsections is discouraged**. Subsection headings can take up quite some space that could probably be used more effectively. Rather, organize each section as a series of coherent paragraphs.
- **Each paragraph should include a topic sentence stating its main point**. It is advisable to put the topic sentence at the beginning of the paragraph so that it is immediately clear what will be discussed in that paragraph. The remainder of the paragraph should then elaborate on the main point using facts, arguments, analyses, examples or other information, and conclude by connecting back to the main point.
- Write an original commentary. Do not copy-paste material from the paper or any other source. **Your submission will be checked for plagiarism** from published and online material as well as from other students. Please be reminded of the Plagiarism Policy and principles of Academic Integrity stated in the COMP9517 Course Outline on WebCMS3.
- You may include original illustrations (produced by you) to support your comments but this is not a requirement. **Illustrations will not attract extra marks**. Also, whether you include illustrations or not, the page limit remains the same. So carefully consider whether it is worth the effort.

SCIENTIFIC PAPER

Q. Li, L. Chen, M. Li, S. Shaw and A. Nüchter, "A Sensor-Fusion Drivable-Region and Lane-Detection System for Autonomous Vehicle Navigation in Challenging Road Scenarios," in IEEE Transactions on Vehicular Technology, vol. 63, no. 2, pp. 540-555, Feb. 2014.