

Final Project Book Guidelines

67546 ENGINEERING PROJECT AND WORKSHOPS - II

Submission Date: 15.8.2018

Congratulations, you've reached the final stage of your project! The project book is meant to describe the problem you chose to work on, and summarizes the technical aspects of your work. It should be structured as follows:

1 Frontmatter

1.1 Title page

The first page must include the following:

- Name of your project
- Group number
- Group member details (name, t.z, email)
- Advisor details (name, email, institution / company)

1.2 Abstract

The second page should contain an abstract summarizing the work, it can be the same one you submitted for the projects booklet.

1.3 Introduction

We encourage you to follow the best practices for writing academic papers (this is based on <https://cs.stanford.edu/people/widom/paper-writing.html>), where the introduction should include answers to the following questions:

- What is the problem?
- Why is it interesting / important?
- Why is it challenging?
- How does my approach differ from existing solutions?
- What are the key components of the approach / results?

1.4 Related Work

Survey of the relevant literature of the field, with references wherever possible (ideally to academic papers).

2 Body

2.1 Method & Materials

Descriptions of the methods used for the implementation of your solution - this should include:

- Description of the whole solution pipeline including all components used, and the relations between them. Diagrams are, of course, very useful. It should be very clear how your approach solves the objective.
- Details of your algorithms. If you're based on an existing algorithm, include a short description and reference to relevant background material. Make sure it's clear what adaptations you made (if any).
- Details of materials, hardware and software packages used.
- If this project is part of a larger one / extension, make sure it is clear what your work was, and what already existed.
- Implementation details - how the codebase is structured, and how can it be accessed / extended. **For those of you doing the bonus of code documentation for future work- the document you prepare for the bonus can be included in the appendix and referenced in this section. To clarify- if you're doing the bonus, then you also have this section ready.**

2.2 Evaluation

This is a very important section, it should include:

- Performance metrics - a description of how you will evaluate the performance of your solution. Possible metrics:
 - Pure running time
 - Sensitivity to important parameters
 - Scalability in various aspects: data size, problem complexity
- Comparison to other methods, if relevant. Possible metrics:
 - Relative performance to naive approaches
 - Relative performance to previous approaches

- Details of the dataset used for evaluation, if relevant (reference to existing paper, or description if you created it).
- Discussion of results.

2.3 Conclusion

This shouldn't repeat the Introduction, but rather provide the following:

- Summary of your results, and your interpretation of them - what conclusions follow from them? This should include limitations and capabilities.

2.4 Future Work

- Possible extensions / improvements to your work
- New research directions

3 Backmatter

3.1 Bibliography

Referenced throughout the project book.

3.2 Appendix (optional)

For additional details - this won't affect your grade negatively, but may improve it if the added details are relevant. See for example section 2.1 in the last bullet point.

4 Additional Remarks

- Maximum length of the project book (not counting appendix): 16 pages.
- Read some related academic papers to get a feel for their layout.
- The book will be published on the course site unless you specifically ask us not to (for confidentiality reasons with external companies, patents, etc..)

Good luck!