

AAE4006 Design Project Report

Names (SIDs)

1 Introduction

The main goal of having this report is to strengthen your understanding of the main content of the subject. By doing this report, you should look back to the very beginning, recall what you learned in the lectures, and think about how these lectures are linked with this project.

The design project report should contain at least three sections: introduction, methodology and results, and concluding remarks.

In the introduction, please briefly introduce the design project, including the objectives of the project and what results have been achieved from a high-level point.

At the end of this section, state clearly the contribution of each group member in a table. An example is shown below. If you work alone, no need to have this.

Table 1: Contribution of group members

Name	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Average
Student A	50%	30%	60%	20%	70%	30%	40%
Student B	50%	70%	40%	80%	30%	70%	60%

2 Methodologies and Results

Since Task 1 and Task 2 are quite fundamental in this project, please briefly describe these two tasks in terms of methodologies and results. For each of the remaining tasks, please state the particular goal, how you achieved it and the corresponding results in details.

- Present in figures and tables if applicable together with text explanation.
- Whenever necessary, have the relevant models together with the methodology part.
- Discuss what challenges you met and how you solved them.

Completing the coding work and the Simulink model following the tutorials means that you got a tiny simulation platform for the flight of a fixed-wing aircraft. However, this is not the end. With this platform, you are strongly encouraged to dig into it and study the relationship between some key parameters, such as the minimum airspeed needed to enable an aircraft with a certain mass to fly. You can also extend the platform by adding more features including but not limited to state estimation and trajectory following (i.e., the topics of the last two lectures) if you are interest.

3 Concluding Remarks

In this section, please summarize your work, what skills you learned, the key take-away from the design project, etc.

Appendix: Marking criteria

How the report will be assessed is listed in Table 2. If all the four items are excellent, 12 marks ($=2*1 + 3*2 + 2*1 + 2*1$) will be given to the report.

Group members will get the same mark if their average contribution difference shown in Table 1 is less than 10%. Otherwise, the member with smaller contribution will get a lower mark according to how much he/she contributed.

Table 2: Marking criteria

Item	Excellent (3)	Admirable (2)	Acceptable (1)	Poor (0)	Scale
Introduction		A cohesive, well-written introduction of the project.	Certain major introductory points are missing or explanations are unclear and confusing.	Very little background information is provided and/or information is incorrect.	1
Methodologies and results	Containing details on how the project was performed and the procedures followed. Written in the correct tense and omit information that can be assumed by peers.	Narrative includes most important details but is missing one or more relevant pieces of information.	Missing several details and having some incorrect statements.	Several important details are missing. Narrative is incorrect, illogical, or copied directly from the tutorial materials. Written in the incorrect tense.	2
Concluding remarks		Clear, concise, and thorough summary including context, important results, and conclusions.	Missing one of the major parts of the results, context, or conclusions	Missing several majors aspects and merely repeats information from the introduction and the tutorial materials.	1
Presentation and structure		Equations, figures, and tables are indexed with proper captions and legends. Proper length and pages are numbered. No typos. The presentation is elegant.	Missing some important indexed terms. The amount of typos and errors is still acceptable.	Unprofessionally organized the report. Missing major indexing and numbering of pages. Readability is low.	1

Notes

- Make the report around 10 pages with a text font size of 12 and suitable margins.
- This guide was written in ***Latex/Overleaf***. To make your report look elegant and professional, you are encouraged to have a try.
- If you work in a group, only one group member needs to submit the report in ***Blackboard*** by the due.
- If there is anything unclear, please contact hailong.huang@polyu.edu.hk.