

**ME6104 Computer-Aided Design
Project Final Report
(Due 4/26/2024 – 11:55pm)**

*The written **report/paper**, **source code**, and **presentation slides** should be submitted **electronically** onto Canvas in MS Word and PowerPoint format before the due time. It is weighted as **90%** of the grade for the final project. Late submission will NOT be accepted, except for the grace period only given to students who enrolled in Section Q.*

Students who enrolled in Section A are required to participate in all live project presentations by others. Please also reserve a time slot for your presentation in a form available on Canvas later in the semester.

For students who enrolled in Section Q, the submitted MS Powerpoint presentation slides should contain your voice recording so that the slides can be replayed in lieu of live presentation. If you would like to participate in live presentation, please reserve a time slot similar to other on-campus students and submit the slides with recording ahead of your scheduled time slot so that the slides can be played during class.

Option 1: Survey Paper

The deliverable for this option includes the *survey paper* and *presentation slides*.

1. Survey paper:

The length of the survey paper is expected to be 40 to 50 pages without references (20 to 25 pages for one-person effort), with the *single-column double-space* format and 12-point font, similar to a draft submitted to a journal. It should contain the following contents:

- 1) Title, Abstract, and Authors: the abstract should have 100 to 150 words that provide an overview of the paper.
- 2) Introduction: What is the topic you studied? Why is this topic important? What are the existing approaches that try to solve issues on this topic (provide an overview)?
- 3) Detailed review: Describe the detailed review of the existing approaches. Categorize them in a logical manner such that papers with similar methodology should be in the same category. Sort different categories as different subsections. For each category, the survey should follow the chronological order with the earliest method or approach listed at the beginning. The review should focus on the uniqueness or technical contributions of these approaches. In other words, you need to summarize the core technical contribution of an approach in your description, including pros and cons.
- 4) Discussions and Future Work: Summarize what you have learned about these existing approaches. What are the limitations of the existing approaches? Discuss possible future improvement.
- 5) References

2. Presentation:

The presentation slides should contain the similar contents as in the paper, but with some better graphical illustrations.

Evaluation Criteria

The survey paper will be graded based on the criteria that if the survey is **complete**, if the technical assessment of others work is **accurate**, if the paper is **organized**, and if the English writing is **error-free**.

Option 2: Modeling

The deliverable for this option includes the *written report*, *developed source code*, and *presentation slides*.

1. Written Report:

The project written report should have the length of 7~12 pages (without references) with the *single-column double-space* format and 12-point font. It should contain the following contents:

- 1) Cover page: Provide meaningful project title and full names of team members
- 2) Introduction: What are the issues you studied? Why are such issues important? What are the existing approaches that try to solve these issues? What is the approach you took to solve the issues? What was the objective you intended to achieve?
- 3) Methodology: Describe the details of your approach.
- 4) Results: Describe the results you achieve and provide discussions on these results.
- 5) Summary and Future Work: Summarize what you have accomplished and what you have found. Discuss possible future improvement if more time is available.
- 6) References

2. Presentation:

The presentation slides should contain the similar contents as in the report.

3. Source code:

The developed source code should be submitted as a zipped package.

Evaluation Criteria

The project will be graded based on the criteria that if the assumptions, methodology, and results are **sound**, **reasonable**, and **accurate**, if the report is **organized**, and if the English writing is **error-free**.