Digital ASIC Fabrication:
Ethics and Professional Responsibility

Team 12
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Project Overview

Problem Statement

- Undergraduate students rarely get the opportunity to create a custom digital ASIC (Application Specific Integrated Circuit) and gain experience with chip fabrication.

Project Goals

- Our project aims to give interested students experience in chip design and fabrication.
- We plan to build a chip framework that will hold small ASIC projects created by students in a co-curricular team.
- The chip framework will allow the students to have their designs fully implemented and synthesized.

Social Responsibility

- Responsibility to provide the best product we can to the student users

- Goal of enhancing the learning experience for future students

- Focus on inclusivity by considering different user perspectives

- Want to create an easy-to-use product that facilitates learning about ASIC development

- Thorough testing to ensure our product meets high standards

- Aim to fulfill social responsibility and make learning process enjoyable for both users and our team

Communication

- Communication has been a weaker spot for our team

- Always have room to improve

- Want to align team efforts and prevent duplication of work

- 2 communication platforms: Discord and Microsoft Teams

- Routine meetings twice a week

- Improve communication by encouraging in-person meetings and actively sharing thoughts

Work Integrity and Ethical Dilemmas

- We want to create a unique product that is functional but also our own and not a combination of others work

- To this effort, we've endeavored to learn material which is foreign and difficult to us

- We now have a greater understanding of the tools responsible for creating and managing our work

- This will benefit us both in the coming semester, and in the future

- As a result of our diligence, we have benefited in the long run

Conclusion

- Putting in the time and effort on a project that is socially and industrially necessary has benefited us as individuals, and our environment and peers

- We hope that by our efforts can achieve enhanced learning for the future students and ISU's Chip Fabrication extracurricular program

- Hard work, consciously applied, can lead to satisfying results