

EE/CprE/SE 491 Bi WEEKLY REPORT 6

11/08/22 – 12/16/22

Group number: 17

Project title: Bitcoin Mining Asic

Client &/Advisor: Prof. Duwe / Prof. Duwe

Team Members/Roles:

Dawood Ghauri - Design Workflow

Constantine Mantas - Team Organization Leader

Soma Szabo - Component Design

Courtney Violet - Testing

- **Weekly Summary**

As the final weeks of the semester and project are approaching, our team is turning our attention to preparing for the final deliverables for the capstone and anything our advisor may need. This includes the preparation for the industry panel presentation, poster session, transferring files to Chip Fabrication Microsoft Teams Sharepoint file hosting location, and ensuring the next team is ready to take over with the eFabless process. Additionally, we have started working on a user guide that references existing documentation and code to help future teams with the eFabless process. Our implementation of the SHA-1 Bitcoin hasher is complete as stated in the previous report and final preparations are being made for presentation.

- **Past weeks accomplishments**

Created design document appendix and new SHA-1 hardware. Documenting trials, errors, and effort put in to make the hardware function correctly.

Created simulation waveform files to show SHA-1 works properly.

- Dawood: Importing documentation from our team’s Google Drive staging location to Microsoft Teams Sharepoint for transfer of ownership and centralization of documentation under Dr. Duwe.
- Soma: Finalized GL simulation issues with the user project area and its configuration/placement. Currently finishing up Bitcoin miner code refactoring and cleanup in the main Github repository; Dr. Duwe should be able to fork the repository for ownership.
- Constantine: SHA-1 firmware functional with the management SoC. Creating waveforms for presentation from VCD files in the eFables environment.
- Courtney: Aided Constantine in generating waveforms from VCD files and helped with ensuring SHA-1 firmware was functional within the management SoC.

○ **Individual contributions**

<u>NAME</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Constantine Mantas	7	110
Courtney Violet	7	106
Dawood Ghauri	7	110
Soma Szabo	7	117

○ **Plans for the upcoming week**

- Constantine Mantas: Finalize waveforms for presentation.
- Courtney Violet: Final testing for GL simulations with SHA-1 hasher and assisting with waveforms.
- Dawood Ghauri: Finish senior design manual for eFables process.
- Soma Szabo: Finalize github refactoring and SHA-1 simulation data.
- Team: Finalize for the end of semester.