EE 492 Weekly Report 5

Title: Development of a strain visualization microsensor based on Moiré fringes

Week 5: October 13 - October 26

Team Members: Christian Tanberg, Matthew Thies, Ki Jun Shin and Parvaraj Bhatt

Client & Advisor: Dr. Long Que

Summary of the Progress:

Over the last two week, we worked on the matlab code and worked on the second peer review meeting presentation. With the code the two patterns that are superimposed on each other to create the moire fringe effect is close to being completed. We were able to create images of the patterns overlaid on each other at different points. We also started working towards writing into the code a way of taking an input of strain or displacement and producing an image output that shows the level of strain, our testing method. We also worked on the presentation for the peer review meeting.

Pending Issues:

Christian Tanberg: None

Kijun Shin: None

Matthew Thies: None

Parvaraj Bhatt: None

Individual Contributions:(Individual)

| Name | Contribution | Working Hours | Total Hours |
|---|--|------------------|----------------|
| Project Manager: Christian Tanberg | Over the last two weeks I have been working on the new code we plan to use. I was able to finish the code and start working on the code to test the moire fringe pattern. | 8 | 34 |
| Research Lead: Ki Jun Shin | For this week, I and Matthew finalized our 2nd webex presentation ppt slides. Also, I and Matthew tested a few of the code that were done by Christian Tanberg and Parvaraj Bhatt. | 7 | 32 |
| Test Engineer: Matthew Thies | Jun and I worked on the 2nd the webex presentation and finished it. We also did some testing of the code done by Christian and Parvaraj | 7 | 32 |
| Design Engineer: Parvaraj Bhatt | Worked on code with Christian to create two patterns that superimpose over each other and create the moire fringe pattern Worked on the code for testing | 8 | 34 |

Future Plans

- 1. Christian Tanberg: My plan for the future is to meet with Long Que and see if there are things he wants us to change. If there is we will make the necessary changes, and if not I will start on the poster for the project.
- 2. Parvaraj Bhatt: Meeting with Dr. Que this week to show our progress. Make minor changes to code and work on the test code as well. Work on the poster with Christian.
- 3. Kijun Shin: We plan to have another meeting with our supervisor, and briefly discuss our final steps for our project.
- 4. Matthew Thies: We will meet with Dr. Long Que to discuss our current status. We will also finish up the testing code.