

Documentation and Educational Website Weekly Report

EE/CprE/SE 492 WEEKLY REPORT 02

1/27/2023 – 2/18/2023

Group number: 31

Client &/Advisor: Dr. Hongwei Zhang

<i>Team Members</i>	<i>Majors</i>
Adam Kruger	Software Engineering
Danny Cao	Electrical Engineering
Ethan Gabriel	Electrical Engineering
Zachary Miller	Software Engineering

Sphinx Development

- Adam Kruger
- Zachary Miller

Website Design

- Zachary Miller
- Ethan Gabriel

Willingness to learn about

5th Gen Wireless Networks

- All team members

Tech Writer Skills

- Danny Cao
- Ethan Gabriel

Experiment Design

- Danny Cao

Git

- Zachary Miller

Surveying Experience

- All team members
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Weekly Summary:

For this week, the overall object was getting everything set up in terms of tools and applications after the weekly meeting with the advisor/client. With that said, the team went through the installation process of Sphinx, Git, and Python. Time was also spent having the EE's on the team get a little more familiar with utilizing Git and accessing the repository. Each team member confirmed the ability to push and pull from/to the repository by running test prompts to the documentation website.

With everything confirmed to be running and clearing up permission errors, the team began to plan a discussion regarding website template as well as reviving older applications such as Powder and srsRAN as these applications will be used to setup a custom 5G network, which will be crucial to implement in conjunction with the learning modules.

While not spending the full meeting time on the website template, there was a brief moment in which the team spent some time talking through our initial idea for the website framework, but kept in mind that this topic will be focused more on during the next meeting.

Make sure the template and tabs are in an appropriate order based on content

Introduction - A brief introduction and synopsis of website content and purpose.

- Precisely add learning objective and outcome.
- Overall goal for the module, and what can they learn and do after completing the module.

Module Links - Where most of the content will be held, but will have to work closely with advisor and other resources to discuss important topics that can be utilized with the 5G ARA network.

Test Bed - An area where we can utilize powder and other applications such as srsRAN, etc. to test and visualize concepts from the module links.

- Start with Powder
- Add ARA - Some features that are available in ARA that are not present in Powder
- ARA - ISU associated

Contact Us - A standard feature on most websites. A general area to post contact information.

How to Get Started - The tab will most likely be used to recommend all necessary applications and software to be installed in order to make full use of the documentation and educational website such as; Powder, Sphinx, srsRAN, (O-RAN maybe), ARA

Reference sources - Include proper acknowledgment and credit to any information used to avoid legal trouble

Search - An all purpose search function to quickly find specific content or information.

Documentation - This tab was requested to be added by our client and implements gitlab to track changes and updates to the site.

It will also be necessary to include the official ARA network website somewhere within the team's site.

Past Week Accomplishments:

- Zach Miller: Worked on developing the home page for Sphinx, developed the base code for the website, and helped the group set up Git and python installations. Discussed ideas for the Experiment template page.
- Danny Cao: Worked on getting his Sphinx environment setup, connecting to GitLab, and drafted handwritten website layout wireframes. Discussed ideas for the Experiment template page.
- Adam Kruger: Helped to set up an index page for the website. Discussed ideas for the Experiment template page. Discussed potential modules/tabs on the website that would help visitors navigate.
- Ethan Gabriel: Help to set up the search page and make a verbal roadmap for future work. Discussed ideas for the Experiment template page.

Pending Issues:

- Zach Miller: Design issues for main home page, deciding factors for layout and design.
- Danny Cao: Coding knowledge - Sphinx environment setup was complicated to initially set up having little experience. Git installation was also bugged with command lines not being recognized.
- Adam Kruger: Needs to build understanding with sphinx and html programming.
- Ethan Gabriel: Coding knowledge - Sphinx environment setup was complicated to initially set up having little experience.

Individual Contributions:

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>Hours cumulative</u>
Zach Miller	Uploaded initial workspace setup, developed Sphinx documentation homepage	6	9
Adam Kruger	Helped to set up an index page for the website. Discussed ideas for the Experiment template page. Discussed potential modules/tabs on the website that would help visitors navigate.	6	9
Danny Cao	Brainstormed certain tab menus for the website	6	9
Ethan Gabriel	Help to set up the search page and make a verbal roadmap for future work. Discussed ideas for the Experiment template page.	6	9

Plans for Upcoming Week:

- Establish concrete template for web pages to be populated
 - Team Collaboration
- Have some members set up Powder application for small end testing for future use in website
 - Danny Cao and Ethan Gabriel
- Configure the index screen, giving the website a starting point for new viewers
 - Adam Kruger and Zach Miller
- Start documenting required features obtained from ARA network website as per client request
 - Danny Cao

Summary of Weekly Advisor Meeting:

The weekly advisor meeting consisted of finalizing the plans for hosting the documentation. The team had other plans for incorporating the documentation and educational site by hosting the server on a virtual machine, but we were advised and requested to use git and the hosting service that is currently running the official ARA 5G network.

There were also talks about providing necessary credit to a previous member on our team that had an unfortunate leave due to other plans.

Our plan moving forward is to obviously make this destination more appealing to look at, provide reputable information about ARA and its mission, and to give an up-to-date collection of their own documentation via their git repository. We hope to make the website attractive to outside viewers, and that it may inform people outside of the Ames about the work being done by ARA.

However, this was more of a test step to ensure all team members had the necessary permission to access the source code and website. Next week's plan is to layout the framework of the website, and once finalized with the required tabs and confirmation from our advisor and client, will the team begin to populate information.

Screenshots of the Website Progress:

