

EE 491 Weekly Report | May15-01 | Week 9 (10/27/14 -11/03/14)

Advisors: Adam Literski, Dr. Ajarapu **Client:** Black & Veatch Corporation

Members (roles): Matt Backes (Team Leader), Ryan Jerve (Communications Leader), Faran Malik (Communications Leader), Sohail Suryavanshi (Webmaster), Bhargav Gouni (Key Concept Holder), Kiran Rane (Key Concept Holder)

Project Title: 69kV / 12kV Substation Design Project

Weekly Summary:

This last week we met as a group on 10/28 and discussed some revisions that needed to be made to some of the drawings that we made in the past week. We also went through the design document and finalized it. During our advisor meeting, we talked to Josephine and Professor Ajarapu about our drawings and we found out we had a few more misconceptions about our project. After the meetings, we have a better understanding of what we need to accomplish this semester.

Meeting Notes:

10/29 Group Meeting with Advisors

Before the meeting, we sent an email to Adam and Josephine of our updated documents (panel arrangement, one-line diagram, and design document). During the meeting, we received feedback over these documents. Josephine encouraged us to continually make updates to the design document. In addition, Josephine was wondering why there were a bunch of components deleted from the one-line diagram that should not have been deleted. Bhargav and Kiran wanted to make sure that the bus configuration was correct. Because of this they did not include all the components except for the current transformer connections, She suggested that we look at the project scope and also figure out what the relays do. In addition, she wants the drawings to use a legend. We need to color code lines so that we can determine what the line is used for such as tripping, re-closing, closing, etc. Currently, we are waiting for full access to Schweitzer so that we can get the specifications for all the relays. Through e-mail, Adam and Josephine approved of the control panel layout. Josephine also e-mailed an example budget. We can change the budget based on the example or keep our own. We also need to figure out a cost estimate for the 3d model. We might be able to get a 3d model ready for our demo if it's feasible.

10/21 Group Meeting

During our weekly team meeting (led by Kiran), we reviewed our revised drawings for the one-line diagram and the control panel layout. Along with this, we reviewed the designed document and added in some last minute content and screenshots. The following are the individual tasks that each person needs to work on during this next week:

- 1.) Sohail and Matt: Work w/ port connection. Edit primary relay drawings
- 2.) Bhargav and Kiran: Modify One-line diagram based on Josephines feedback and submit to B&V.
- 3.) Ryan and Faran: Go over the "ds-s-22-4 key prot" document and make sure all the lines to the relays are correct.

Pending Issues:

1. Continuing the entire design process

2. Read the entire project scope and use that information for our drawings
3. Cost Estimate for 3D Model
4. Data sheet and the project scope inputs and output assignments do not match up. Make changes to the scope based on the data sheet.
5. Lock out contacts question in BU Relay drawing. Josephine will get back to us on this.

Plans for Next Week:

Tasks for each team member:

- 1.) Sohail and Matt: Work w/ port connection. Edit primary relay drawings
- 2.) Bhargav and Kiran: Modify One-line diagram based on feedback from Josephine.
- 3.) Ryan and Faran: Go over the “ds-s-22-4 key prot” document and make sure all the lines to the relays are correct.

Current Individual Contributions

- Matt Backes: Attended weekly meetings. Edit primary relay drawings (5.5 hours)

- Faran Malik: Attended weekly meetings. Modified/Redrew control house layout drawing based on Adam’s feedback. Went over the “ds-s-22-4 key prot” document and made sure all the lines to the relays are correct. Worked on weekly report. (5 hours)

- Ryan Jerve: Attended weekly meetings. Went over the “ds-s-22-4 key prot” document and made sure all the lines to the relays are correct. Worked on weekly report. (4 hours)

- Sohail Suryavanshi: Attended weekly meeting, worked on back-up relay drawing and verified data given in the covington project scope and ported values on the drawing. Looked up details in SEL 351S. (5.5 hours)

- Bhargav Gouni: Attended weekly meeting, modified one-line diagram based off of feedback, reviewed documents on relay 487e and relay 351s (4.5 hours)

- Kiran Rane: Attended weekly meeting, modified one-line diagram based off of feedback, reviewed documents on relay 487e and relay 351s (4.5 hours)

Total contributions for the project:

- Matt Backes (39 hours)

- Ryan Jerve (33.5 hours)

- Faran Malik (36.5 hours)

- Kiran Rane (36.5 hours)

- Sohail Suryavanshi (36 hours)

- Bhargav Gouni (37 hours)

