
EE 491 Week 10 Report - sddec18-03

Design of a More Reliable Power Grid for Puerto Rico

4/9/18 - 4/16/18

Faculty Advisor: Vikram Dalal

Team Members

Logan Lillis - *Communications and Reports Lead*

Ricardo Rodriguez-Menas - *Webmaster and Project Plan Lead*

Heiqal Zamri - *Test Engineer Lead*

Weekly Summary

On April 9th, we had our weekly meeting. This meeting focused specifically on finishing up the end of the semester. Our main discussion was on the final project presentation. Going over the rubric, we had a few questions on how our specific project would fall into some guidelines, but combined a rough draft of our presentation. We also plan to run through the presentation with both Professor Zambreno and Professor Dalal to get feedback. Another main focus over the next few weeks will be our project plan and design document, which are due in the last two weeks of the semester. Our test plan is the main section needing updating, so energy will be focused on defining the test plan for our project.

Past Week Accomplishments

- ❖ Lightening Presentation on Tuesday 3/27
 - Ricardo will be presenting on Energy Storage
- ❖ Dalal Slides Research
 - Solar Irradiance - Logan
 - Longest period w/o sun?
 - Minimal “percent” needed to call it a ‘sunless’ day for solar?
 - Natural Gas - Heiqal
 - Prices with and without imports
 - Energy Storage - Ricardo
- ❖ Refine Design Document and Project Plan
 - Use details from Presentation slides
- ❖ Brainstorm final presentation ideas
 - Economic value of components (Microgrid, Solar Panels, Gas turbines, Energy Storage, Insulation data)

Pending Issues

- ❖ Final Presentation Formatting
 - Do we include “cost”?
 - No specific costs associated with our project
 - Do we include “hardware and software”?
 - Not enough research to definitively decide “best” hardwares, and not ready to test with softwares yet
 - Do we need a “prototype”?
 - Presentation will already lay out each component
 - How do we demonstrate a “conceptual sketch”?
 - Test Plan
 - Conceptual, software, etc.
- ❖ Weekly Report Formatting
 - Personalization and Numbering - Ricardo (meeting w/ TA)

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Logan Lillis	<ul style="list-style-type: none"> ● Final Presentation Slides <ul style="list-style-type: none"> ○ Solar, Wind, Natural Gas Deliquification Port, Economics, Subsidies, Introduction, Conclusion, Formatting, Member Contributions ● Weekly Meeting Minutes ● Weekly Reports ● Project Plan <ul style="list-style-type: none"> ○ Commented point deductions on each section ○ Rewrote Task Approach ○ Rewrote Deliverable ○ Rewrote various sections in 2 and 3 <ul style="list-style-type: none"> ■ Grammar and material 	5	50
Ricardo Rodriguez-Menas	<ul style="list-style-type: none"> ● Edited and added new documentation to the website ● Extended research about standards and code of ethics ● Editing project plan, adding a new timeline and description. 	3	35

Heiqal Zamri	<ul style="list-style-type: none"> ● Worked on the final presentation slides <ul style="list-style-type: none"> ○ Looked at all the slides and notes with Prof. Dalal to help do the slides. ○ Arranging the information according to the criteria given ○ Focused on what to work on and what is not important 	2	28
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Plan for Upcoming Week

- ❖ Final Presentation Presentation
 - 4.23.18 @1:30 PM in Coover 2222
 - Slides (formatted as shown in rubric)
 - Pull information from bi-weekly meeting slides
 - Pull information from Project Plan and Design Document
 - Tentative Plan:
 - Title
 - Project Plan
 - Design
 - ◆ background/history/nat disasters
 - ◆ Renewables/weather/irradiance
 - ◆ Nat Gas
 - ◆ Turbines
 - ◆ Interconnectivity/microgrids
 - ◆ Economics
 - Conclusion
- ❖ Rewrite Project Plan
 - Specifically Section 2 and Test Plan - Cal + team
 - Due 4.20
- ❖ Rewrite Design Document
 - Specifically Section 3 and Test Plan - Cal + team
 - Due 4.27
- ❖ Update Website - Ricardo
 - Due 4.27
- ❖ Weekly Report Discussion w/ TA - Ricardo