

EE/ CprE 491 – ssddec18-19 Weekly Report

2/20/18 – 2/27/18

Group number: 19

Project Title: Design and Implementation of a small scale standalone Hybrid Solar PV and Wind Energy Generation System

Client & Advisor:

Venkataramana Ajjarapu

Team Members/Role:

Christopher Goodrich: Reasearch Engineer

Taylor Mullen: Testing Engineer

Kenny Nguyen: Testing Engineer

Damon Stubbs: Research Engineer

Andrew Wassenaar: Team Leader

Past Week Accomplishments:

- Understand components of prior groups work and how they interact with each other
- Presented findings to client, client approved of presentation

Issues:

- Created ideas of design component of project, client did not approve on some ideas and wanted us to expand on other ideas

Individual Contributions:

Name	Individual Contribution	Hours this Week	Cumulative Hours
Christopher Goodrich	Research on the physical properties of a PV, and it's circuit model representation. Came up with a few possible design ideas based around applications of PV generation.	4	16
Taylor Mullen	Brainstorm ideas on ways to implement a new element within the lab.	3	15
Kenny Nguyen	Brainstorm ideas on implementation new load element within the lab. Research about components in order to fully understand system	2.5	16

Damon Stubbs	Created new PV array presentation. Simulated and data collected various different scenarios.	5	17
Andrew Wassenaar	Brainstorm ideas on how to improve the EE452 lab. Complete research on MPPT and how to maximize power from a solar panel.	3	15

Plans for coming Week:

- Simulate prior groups lab in order to fully understand the constraints of the lab.
- Find difficulties in completing the labs and areas that needs improvement.
- Brainstorm ideas on how to charge the battery better due some lab sections having the lab during the evening time when there is little to no sunlight
- If possible, find a place to place solar panels other than in the courtyard of Coover hall where there is little to no light during the day hitting the solar panel
- Decide on new load that will be designed for the lab