

**EE/CprE/SE 491 - sdddec19-06**

**Design and Implementation of a Small Scale Stand Alone Hybrid Solar PV and Wind Energy Generation**

**WEEKLY REPORT - 6**

3/16/19 – 4/5/19

Client and Faculty Advisor: Dr. Venkataramana Ajjarapu

**Team Members:**

Hussein Ghitan - Meeting Scribe

Blaise Ronspies - Test Engineer

Adam Schroeder - Chief Engineer

Anna Schulte - Meeting Facilitator

**Weekly Summary:**

This report covers the two weeks following spring break. We completed our design document which was turned in early last week. The team talked with the client, etg, and our client's graduate assistant on making our project usable for the student lab at the end of April.

**Past Week Accomplishments:**

Hussein and Adam worked on simulating results using the PV model in simulink. Through the simulation, the MPP and IV curve was obtained across each resistor load. The team needs these results to compare them with the hardware results we will get later. Blaise drafted some designs to improve safety and together with Adam and Anna connected the new breaker.

**Pending Issues:**

The team still communicating with the ETG to have the safe set for the PV arrays and rewiring the lab input wire.

**Individual Contributions:**

| <b>Team Member</b> | <b>Contribution</b>   | <b>Weekly Hours</b>      | <b>Total Hours</b> |
|--------------------|---|--------------------------|--------------------|
| Hussein Ghitan     | Simultate and edit the lab manual for the EE452 and verify the results. Writing and finalized the design document in addition to the regular weekly meetings. | 10                       | 28                 |
| Blaise Ronspies    | Writing sections of design document and proofreading entire document. Meetings with client and team.  | 7+1.5 in unreported week | 21                 |
| Adam Schroeder     | Worked on design document, finalized lab and answer key for lab. Ran software and   | 8                        | 26                 |

|              |   |   |    |
|--------------|---|---|----|
|              | labs to ensure the working simulation.<br>Connected new breaker to system   |   |    |
| Anna Schulte | Set up meeting with Matthew Post, design document, finalized lab manuals for software portion of lab, created answer key for software portion of lab manual | 8 | 22 |

**Plans for Coming Week:**

The team is planning to reconnect the PV panels next week. After the panels are connected we will be able to test the full system and measure voltages. Once we have it working properly we are planning on finishing the hardware portion of the labs to test and make sure that our values match with the values we got from the simulation.