

**EE/CprE/SE 492 - sdddec19-06**

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

**BIWEEKLY REPORT - 2**

09/14/19 – 9/27/19

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

**Biweekly Summary:**

The team created a more detailed plan for the semester. The DC power system has been tested and the team has begun to connect the inverter for AC and 3-phase power.

**Past Two-Weeks Accomplishments:**

- Began separating the digital circuit from the power circuit for future testing
- Reconnected and tested the DC portion of the power circuit
- Began combing through Arduino code and wire connections
- Corrected the polarity of the power coming from the solar panels

System hardware and software: Hussein

1- Reset and power up the system from the solar panels to produce a DC signal.

2- Reviewed the Arduino code and connections. Arduino is the platform of current, irradiance and voltage sensors.

3- DC system is completely functional; however, multimeters are disconnected and ready to be tested.

**Pending Issues:**

The team is currently not sure if the multimeters are working correctly. Need to do testing to determine if new ones will be needed. We need to order parts as soon as possible.

**Individual Contributions:**

<b>Team Member</b>	<b>Contribution (Optional)</b>	<b>Biweekly Hours</b>	<b>Total Hours</b>
Hussein Ghitan		6	12
Blaise Ronspies	Helped create semester plan, order	7	12

	things we need, and worked with arduino code. Enrolled in training for power tools.		
Adam Schroeder	Set up goals for the semester. Took apart the multimeters from the system. Wired up the power circuit to operate without the multimeters. Tested DC power circuit, discovered the negative polarity. Reversed the polarity so the circuit would operate correctly. Prepared slideshow presentation.	9	15
Anna Schulte	Tested the DC power circuit, helped correct polarity. Started designing a box for the battery and solar panel breakers.	8	13

**Plans for Coming Two Weeks:**

- Finish setting up and testing AC and 3-phase circuit
- Work on improving/creating lab manuals
- Order remaining parts

**Summary of weekly advisor meeting (Optional):**

- Presented updated schedule for the semester