

Design and Implementation of a small scale stand-alone Hybrid Solar PV and Wind Energy Generation system for EE 452 lab

EE 492, Bi-Weekly Status Report #1 August 17th - August 30th

Team Members:

Conner Makoben - Electrical Engineer
Mohamed Adam - Electrical Engineer
Daniel Mendez - Lead Engineer
Samah Shabbo - Electrical Engineer
Ben Holt - Electrical Engineer

Summary

The project's status is currently in the planning and contingency stage due to possible covid restrictions. We are double-checking that our approved wind turbine location is still good as well as making sure we will have access to the lab to continue the hardware portion. In the meantime, we are finalizing the parts list to hopefully be sent to ETG soon. We are also wrapping up our wind turbine simulation in Matlab to be used in future 452 labs. The 452 lab that was completed last semester is being reviewed based on previous feedback. We are looking at possibly making the hardware design more modular with a wind portion that can connect to the existing solar portion instead of a hybrid. Lastly, we are creating a timeline for this semester in order to stay on schedule with a shortened semester.

Contributions

Name	Hours Worked Week 1	Total Hours	Contribution
Ben Holt	8	8	<ul style="list-style-type: none">• Reviewed the project schedule for fall 2020 that Daniel created.• Created the Bi-weekly status report for this reporting period.

			<ul style="list-style-type: none"> ● Reviewed hardware design to look at reusing existing solar and building new wind portion. ● Looked into how to program an Arduino LCD display to show sensor readings.
Daniel Mendez	8	8	<ul style="list-style-type: none"> ● Scheduled fall 2020 kickoff meeting with client and team ● Reevaluated the status of the project and working on path forward for project execution ● Designed and developed project schedule for fall 2020 (see EE 492 website)
Conner Makoben	4	4	<ul style="list-style-type: none"> ● Review project work from last semester to refresh on current progress ● Prepare material to discuss during the next advisor meeting regarding the current lab simulations and what new simulations should be developed
Mohamed Adam	8	8	<ul style="list-style-type: none"> ● Attended two meetings with the advisor and my team members ● Worked on wind turbine simulation for determining and matching the parameters with the the proposed design ● Checked wind turbine specifications options from cost and efficiency perspectives
Samah Shabbo	8	8	<ul style="list-style-type: none"> ● Attended a meeting with the client and our team. ● Reviewed the project schedule for Fall 20. ● Reviewed the equipment and pricing list to submit it to the client.

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Pending Issues

Our most recent issues currently are lab access and wind turbine location. Having access to our lab room affects the hardware portion of our project. Due to covid restrictions if we are unable to access the lab then ordering parts and completing the hardware portion will be no longer possible. Covid restrictions might also change the approved location of the wind turbine. The wind turbine needs to be placed in the Coover courtyard in order to connect to our system.

Plans

Our current plans involve finding out about lab access and wind turbine location. Once those two issues are resolved we can start to plan how we are going to go about the hardware portion. We plan on finishing the wind turbine simulations in the next few weeks. We also plan on having a timeline with set deadlines completed sometime this week.