

EE / CprE / SE 491 – sdmay18-42

Group 42: “Power Systems Analysis in an Induction Type Wind Turbine”

January 21 – February 03

Client:

Ron Zickefoose

Faculty Advisors:

James McCalley and Nick David

Team Members:

Ben Zickefoose – Team Lead/Chief Engineer

Melissa Flood – Power Engineer/Meeting Facilitator

Tate Stottmann – Power Engineer/Test Engineer

Matt Miner – Power and Controls Engineer/Meeting Scribe

David Clark – Controls and Embedded Engineer/Report Manager

Bi-Weekly Summary

Continued research. Group work on the class presentation. Shopping for necessary materials for engine turbine testing. Continued research and design on the control system. Team members worked with ASMG software to simulate turbine motor.

Past Accomplishments

Continued research. Team members worked with ASMG software to simulate turbine motor. Team members worked towards getting the physical turbine tested. Continued work on microcontroller circuit design.

Pending Issues

No pending issues currently.

Individual Contributions

Team Member	Contribution	Hours	Total Hours
Ben Zickefoose	Presentation preparation. Meeting with Nick David. Discussion about how to test generator. Purchased materials needed to build motor mount and the safety cage. Team meetings.	5	18
Melissa Flood	Meeting with Nick David. Worked with wind data analysis. Researched how to run tests on the motors and added to previous knowledge. Worked on presentation. Team meetings.	7	13

PROGRESS REPORT – 20180203

Tate Stottmann	Class presentation. Single phase generator design. Model for ideal wind turbine inside EDA. Team meetings.	6	13
Matt Miner	Meeting with Nick David. Worked on code for Arduino and played with some code. Simulating the motor on ASMG and getting some parameters research. Worked on presentation. Team meetings.	5	12
David Clark	Developing schematic for microcontroller. Researching components. Researching board houses to develop the physical board. Impromptu meeting with Nick David. Class presentation. Worked on presentation. Team meetings.	8	14

Comments and Extended Discussion

None currently.

Plan for Coming Week

Continue researching individual areas. Discussion about REC documentation, make a plan to visit REC's outsourcing company. Working towards finalizing circuit design and layout. Finalizing turbine engine testing and building safety container.

Summary of Advisor Meeting

Set up time to meet with Nick David regularly. Working on setting up meeting with Professor McCalley.