

EE / CprE / SE 491 – sdmay18-42

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

January 08 – 20

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. Team members worked with ASMG software to simulate turbine motor. Team members worked towards getting the physical turbine tested.

Past Week Accomplishments

Coming off winter break.

Pending Issues

No pending issues currently.

Individual Contributions

| Team Member | Contribution | Hours | Total Hours |
|----------------|--|-------|-------------|
| Ben Zickefoose | Shopping for various parts do perform motor testing. Physically worked on the nacelle and running pipe on the tower. Emailed and phone discussions with AutoCAD and IEEE club to set up a class for AutoCAD to conduct. Team meetings. | 13 | 13 |
| Melissa Flood | Simulating the turbine motor on ASMG (Simulink) and researching needed parameters. Team meetings. | 6 | 6 |
| Tate Stottmann | Research and practice with AuotCAD Electrical setup. Research into squirrel cage generators 1-line diagrams. Team meetings. | 7 | 7 |

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|-------------|--|---|---|
| Matt Miner | Aquiring Arduino from ETG. Build and setup Arduino layout. Team meetings. | 7 | 7 |
| David Clark | Continued with Eagle build for both the old version and the new version of the system microcontroller. Researched electrical components needed to build microcontroller. Team meetings. | 6 | 6 |

Comments and Extended Discussion

None currently.

Plan for Coming Week

Continue researching individual areas. Meeting as a group to discuss current layout of wind turbine. Discussion about REC documentation.

Summary of Advisor Meeting

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