

EE/CprE/SE 492 WEEKLY REPORT 11

4/3/2020– 4/16/2020

Group number: 21

Project title: New Simulation Methods to More Effectively Integrate High Levels of Renewable Energy Resources

Client &/Advisor: MISO and James McCalley

Team Members/Role: Jared Rickard - ; Collins Ntwali - ; Nidhi Rawell - ; Jeremy Nash - ;

o Weekly Summary -

Attribute statistics were calculated using brute force methods of computation. Plexos results were compared based on error values in line with client's requests. GUI issues were fixed. Initial simulations with K-medoids were run to see if it was drastically different from K-means. Effort was put into finalizing research about similar work and different avenues we could have taken.

o Past week accomplishments

- Jared Rickard: Created and ran python code that compared approximations of all combinations of attributes for individual files to determine 'good' attribute lists for the whole profile. Then compared combinations of those to see what approximations were most picked. Fixed GUI issues brought up by client
- Collins Ntwali: Identified some alternative approaches/views/perspectives to those taken in implementing our senior design project
- Nidhi Rawell: posted output from running K-medoids on wind profiles.
- Jeremy Nash: performed Plexos runs, developed code for error checking, found error results for various Plexos outputs

o Pending issues

- Jared Rickard: Work on final documents for client and presentation
- Collins Ntwali: Final report of project presentation.
- Nidhi Rawell: Finish broader perspective document and send to advisor.
- Jeremy Nash: Wrapping up all the error results in a neat document

o Individual contributions

Name	Individual Contributions	Hours This Week	Hours Cumulative
Jared Rickard	Statistics, GUI fixes	14	143
Collins Ntwali	Documentation	10	124
Nidhi Rawell	Documentation, coding	10	108
Jeremy Nash	Substantial amount of Plexos runs, error checking	20	144

o Comments and extended discussion –

o Plans for the upcoming week

- Jared Rickard: Work on creating final documents
- Collins Ntwali: "Next Steps" Research – Present in client meeting.
- Nidhi Rawell: work on last tasks for the project
- Jeremy Nash: work on last tasks for the project, wrap up error results

o Summary of weekly advisor meeting –

Discussed the schedule for finishing the project.