EE 491 Weekly Report 5

10/10/2024 to 10/17/2024
Team 41
115/34.5kV Solar Plant & Substation
Client: Black & Veatch
Faculty Advisor: Ajjarapu Venkataramana

Team Members:

Andrew Chizek
David Ntako
Ben Palkovic
Mohamed Sam
Sergio Sanchez Gomez
Dallas Wittenburg

Past Week Accomplishments

- Weekly Presentation – All
    - Safety Moment: Relevant IEEE Safety Standards
    - New Technology: Solar Ocean Farms
    - Expand on Cost Analysis
        - Cost estimations covering combiner boxes, land, labor rate and duration based on current selections of equipment
    - Initial Drawings for Project
    - Array Parameter Tool
- Ben – Made 2D AutoCAD drawings and array model as well as array model on excel
- Dallas - Made AutoCAD drawings for Canadian Solar panels, made AutoCAD template to use for reporting and documentation, modeled land size and layout for solar farm location

Pending Issues

- Gantt Chart.
- Further expand cost analysis.
- Research 1 line diagrams for design.
- Voltage drop calculations.

Individual Contributions

Name	Contribution	Hours this Week	Total Hours
Andrew	Helped research more about cost estimation, and started to look into helping with AutoCAD drawings	2	16
David	Helped research on some IEEE standards and a new technology for solar array.	3	25
Ben	Made 2D AutoCAD drawings, array models, and a model on excel using the array parameter tool.	2	19
Mohamed	Gantt Chart, helped autocad and did research on voltage drop calculation	6	22
Sergio	Gantt Chart, help with Autocad drawings, lightning talks, Meeting Agenda, Weekly Report, Design Document, helping with power point slides	5	21
Dallas	Made AutoCAD drawings for Canadian Solar panels, made AutoCAD template to use for reporting and documentation, modeled land size and layout for solar farm location	6	23

Plans for Coming Week

Action Items for Client

- Send parameter tool
- Work on Gantt chart
- Continue with AutoCAD drawings
- Begin working with Voltage Drop Calculation Tool
- Create 1 line diagrams for solar farm design
- Further expand on cost analysis