EE 491 WEEKLY REPORT 7

Date:03/12/2017

Group number: Dec1702A

Project title: Algona Municipal Utilities Power System Designs

Client &/Advisor: Algona Municipal Utilities / Anne Kimber

Team Members/Role: Yuxuan Yuan: Leader; Shengxin Mao: Communication director; Changlin Li: Software master;

o **Weekly Summary**

In this week, we started to design our routes, learn Milsoft, and read relative books about reliability method. Based on the last week meeting with company, we designed 4 routes for our project. And we try to get our permission about Milsoft because Milsoft is a more common and practical software for utilities companies. On the same time, we read book "*Power Distribution System Reliability Practical Methods and Applications"* to understand how to calculate the reliability coefficient.

o **Past week accomplishments**
- Team Member Yuxuan Yuan: Work on the routes design and read book. Based on the currently information, I design 4 routes for our customers with my group. But there are still some confused points in our routes design because of reality factors, like the permission of farmland and railway, the customer ownership boundary, etc. So I try to ask these problems to company.
- Team Member Shengxin Mao: Read the book and think about several possible plans in our project. And we meet with professor kimber. Then, I contact with ETG to wait the permission of Milsoft.
- Team Member Changlin Li: I watched some videos from YouTuBe about the distribution system part code and how to connect OpenDSS with Matlab. I talked to our advisor Kimber that if we can use Milsoft substitute OpenDSS because OpenDSS is very hard to learn and also very strange for our company.

o **Pending issues**
- Team Member Yuxuan Yuan: We have 6 problems about the design routes because

of reality factors. I will get the answer from the response of company. On the same time, I have some questions about the calculation of reliability coefficient. That means I will keep reading the book and find the answer.

- Team Member Shengxin Mao: I contact with ETG, because we know we have the licence to access this software and we want to make sure whatever we can use it.
- Team Member Changlin Li: I will start to search some information or videos from Google and YouTuBe to learn how to simulate our design in Milsoft that is the brand software I need to learn.
- **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS cumulative
Member Yuxuan Yuan	Design the routes, discuss with Dr.Kimber, read the book	9 hours (including 1 hours meeting	43
Member Shengxin Mao	Read book, contact with ETG , thinking plans	9(1 hours meeting)	37
Member Changlin Li	Watch videos about distribution system code in OpenDSS and talked to Dr. Kimber about software	8.5(1 hours meeting)	36.5

o **Comments and extended discussion**

We have a nice progress in this week, including the design plans, calculation of reliability, and software. But we still need read more relative books and paper because we cannot find some similar design example to learn about distribution system.

o **Plan for coming week**

- Team Member Yuxuan Yuan: Because the next week is Spring break, I have a trip to California. So I will try to think about the routes after I get the response of company about new problems. And I will discuss about that with Dr. Kimber through email.

- Team Member Shengxin Mao: we will wait client send us data and responds our question, which we send this week. And I will continue read some book and find out the permission of Milsoft.
- Team Member Changlin Li: Because next week is Spring Break, I will go to mall of America with my girlfriend and her friends. But I can search some videos about Milsoft when I will be in the hotel. I will also communicate with my teammates about Milsoft.

o **<u>Summary of weekly advisor meeting</u>**

In this weekly advisor meeting, we discussed our design routes with Dr. Kimber and find some important problems that we need to confirm with company. And Dr. Kimber introduced Milsoft and gave some suggestions about the next step and our graduation.