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**MEMORANDUM**

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**TO:** PROFESSOR EILEEN CHASHMAN  
**FROM:** NANCY CHARCO  
**SUBJECT:** TRIP TO SERC AND CCAT  
**DATE:** OCTOBER 10, 2014  
**CC:** INSTRUCTOR KISTEN RADECSKY

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#### Purpose

The purpose of this memorandum is to review Schatz Energy Research Center (SERC) and the Campus Center for Appropriate Technology (CCAT) when going on the field trip for our lab on October 2, 2014. This field trip was to show us different places we can gain experience and show us different projects.

#### Discussion

In our field trip we went to Schatz Energy Research Center (SERC) and Campus Center for Appropriate Technology (CCAT). When attending these different places I learned of different projects that pertain to being sustainable and eco-friendly. There were different types projects that I had not heard of before.

The first place we attended in our field trip was SERC. The tour guides talked about how SERC is a qualified insurance program, which means they test products to determine whether the products work to what they are promoted for. SERC is in charge of giving feedback to the manufacture to make their product better. One of the products they talked about was on this device that determines when electricity can be used in other countries. On this device it helps alert people when is a good time for someone to be using electricity. The second product that was introduced were the LED lights. They were being tested to fit the standard test conditions. I thought it was nice to be able to see the different products. There were other interesting projects introduced such as fuel cell station. It was a station on how to convert biomass into energy. The last research the tour guides introduced to was the hydrogen station. They explained how it is more efficient than electric cars. I thought it was eye opening to learn how hydrogen station worked.

The second place we went to visit was CCAT. I was a little surprise with the way it looked. At first I felt it was a bit disorganized. Then I learned that CCAT house was not originally located where it is now. It was located where the BBS building is standing now which explains why it looked like it is getting adapting to it new place. In CCAT I saw a lot of projects that could be done at home. For example the way the garden was build and how walls are made of hay. I also saw that the stairs they had were made of tires. I liked how they had they own green house. They had a lot of technology that did not really use electricity I thought that was very useful. What I got most interested in was the gray water system. Since I am part of the club Engineers Without Boarder and one of the projects they plan to work on is the gray water system I knew a little bit of it but not sure how it looked. The most of what I got from CCAT was that there are so many ways to be sustainable but one has to be willing to try a project to figure out if it works or not works.

#### Conclusion

I really enjoyed the field trip that the class took to SERC and CCAT. I always thought that college prepare you to a good career that involved doing research but I never imagine that you could potentially have that opportunity before even graduating. This field trip was eye opening to me.