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## MEMORANDUM

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**TO:** PROFESSOR ARCHIBALD

**FROM:** ANDIE KOLASINSKI, ENGR 115 STUDENT

**SUBJECT:** CCAT AND SERC TOUR

**DATE:** NOVEMBER 7<sup>TH</sup>, 2019

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### **Purpose**

The purpose of this memorandum is to summarize our on-campus tours of the Campus Center for Appropriate Technology (CCAT) and Schatz Energy Research Center (SERC). Both centers offer excellent opportunities for students in the ERE program to get involved and further develop their skills. An overview of the tours and current design projects being worked on are going to be explained further.

### **Discussion**

We started our on-campus tours at on 2:30pm on Thursday, November 7<sup>th</sup>, 2019. We were visiting and being given guided tours of CCAT and SERC because they are centers on campus most closely connected with the ERE program. They promote renewable energy, resourcefulness, and sustainability, which all environmental engineers should keep in mind when they practice. They both have limitless opportunities for students to get involved, whether in the ERE program or not.

Our tour guide at SERC was a sophomore in the ERE program and started working there her summer after freshman year and was able to continue her internship into the school year. Currently she is working in the off grid solar and lighting lab, where the goal is to ensure rural areas have access to renewable energy. They test solar powered lanterns and devices to see how long their battery life is and if they're of high enough quality to get certified. The irony of this project is that it must use energy first to test these products to ensure areas in poverty have access to renewable energy.

The project that peaked my interest the most was mentioned right before we left CCAT. One of the co-directors giving the tour guided our attention towards a small wooden and plastic pen clearly made from recycled materials. Before this semester is over, that pen is supposed to be inhabited with pigs. The pigs are coming to help with CCAT's already successful composting program. Right now, they just have a standard worm bin composting area that uses heat and moisture to breakdown the food scraps into fertilizer. The pigs are going to eat those food scraps and produce waste all while looking cute and attracting attention for students that don't know what CCAT is yet, it sure got my attention. I will definitely be coming to volunteer Fridays from 10-4pm to help with the pigs and eat some food grown right from their garden.

The most interesting thing I learned was the SERC even existed. I had walked past the building a couple times and wondered what it was. It's fascinating that there is an energy research center right on Humboldt's campus and there's even a chance of getting to work in it as a student. At the center, they have a couple different sectors you could work in: transportation, off grid

solar, off shore wind, and biomass. Before walking into SERC, I didn't even know producing energy from burning biomass was a thing. It's also better for the environment because it's considered carbon neutral. I hope to be back in SERC more during my time here at Humboldt.

### **Conclusion**

This on campus field trip was very informative and helped me realize how many opportunities there are. It is going to be a little difficult for me to get involved while being on the cross country and track teams and still trying to graduate in four years, but I hope to make it happen. Right when the pigs arrive at CCAT, I plan to be there.