
MEMORANDUM

TO: EILEEN CASHMAN
FROM: SCOTT HARRISON
SUBJECT: SERC AND CCAT FIELDTRIP
DATE: OCTOBER 7, 2015

Purpose:

The purpose of this memorandum is to give a reflection on the fieldtrip that we took as a class to get a first-hand experience of the Schatz Energy Research Center and the Campus Center for Appropriate Technology right here on Humboldt State's campus.

Discussion:

This fieldtrip was a great experience for me because I was able to get an in depth look at a lot of the actual projects that go on in order to better our lives in some way or another. I thought that it was cool to have actual students giving us the tours and get their input on a lot of the matters. It was also interesting listening to alumni of the Humboldt State ERE program inform us of their past experiences and current positions as engineers.

Considering all of the very interesting projects that we got to see on the fieldtrip, the one that I found most intriguing was the emergence of the hydrogen powered vehicles in SERC. I was most fascinated by the hydrogen fuel cell vehicles because they are zero emission and are able to run on compressed hydrogen. My first thoughts on these cars were filled with skepticism, but after being informed on the capabilities I was quite impressed. The cars are able to travel hundreds of miles on a tank of hydrogen fuel and have a good amount of power under the hood. In addition, the cost of these cars is comparable to gas or diesel powered vehicles. The cost of the car off the lot would be in the same range as a new gas powered car from a dealership, and the cost to fill a tank up full of compressed hydrogen is about the same as filling up a tank with gas. This is a much better environmental alternative than gas or diesel because there are virtually no pollutants entering the air upon using the hydrogen fuel.

Involvement:

As far as my involvement with SERC or CCAT goes, I think that I could be beneficial in the involvement in the maintenance of CCAT's waste water. I was fortunate enough to have a job this summer involving the implementation of grey water and black water tanks on my bosses property. I know that I am not an expert by any means, but it was fairly interesting to me and I think that my experience could have some benefit to their problems.

Conclusion:

It is hard for me to put my finger on any one specific thing that I found most interesting. If I had to choose one "minor" project that I though was most interesting, I would have to say that the utilization of all natural insulation in the walls was really cool.

All in all, I think that this fieldtrip was very valuable to not only myself, but all of the students that participated. In my opinion, the first-hand experience of witnessing real world applications of the knowledge learned in school is more than half the battle to becoming successful in any trade.