Lab Memo

To: Kristen Radecsky
From: Jeremy Evans
Subject: SERC and CCAT trip memo
Date: March 5,2014

Purpose

Going to the SERC was really interesting itself. As we check out the buildings own technology for sustainability, like the heated floors that have warm water circulating though it, we learned about how the lab portion was conducting tests on new developments for new and cleaner energy. the CCAT house was along the same lines with the sustainability aspect. Going around and seeing what can be reused as everyday household items, I felt that with at little bit of elbow grease, you can lower your impact on the earth by a lot.

Discussion

The project that stood out the most for me was the hydrogen fuel cell car at the SERC. I felt that the technology going into the design and functions are starting to pick up speed. The Process starts with water and electricity. Electrolysis is were you split the h2o molecules making oxygen and hydrogen. This hydrogen is then pressurized and stored, where it will then fill a capable car's tank. The hydrogen will then be processed and turned back into water and then releasing electricity to power the car. The benefits of this technology is that it has zero emissions, which would make the CO2 concentration of the atmosphere drop to a natural level. Socially, the idea of having a high amount of pressurized hydrogen in your speeding car may not be the most popular trend, but I feel that over time, we will find way to make it not so. A downside to this was the cost value. To have this idea become full scale, it would take a lot of time and money. Beside it all, the idea of using hydrogen as energy really interests me. Just the concept of using water for more of our advantages is exciting itself. I would really like to see more of what our programs can do to utilize the power of water

Conclusion

All in all, I really enjoyed what I learned on the trip. I really Like how the CCAT house used their own dye to color the paint for the walls. I also liked their grey water management system, using different planets to filter the water coming out is a very green, very doable, and i feel it can be done on a larger scale.