Radcliffe Brown

EET3120 E260 Sensors and Instruments

Prof.Vladetescu

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**Capstone Project Presentation Reflection**

On May 22nd, 2015, 3 teams presented their Capstone Projects. I attended this presentation to get an idea of what's required of me when I eventually take this course. Each presentation was unique and it was interesting to see the different methods the teams used to develop their projects. I don't quite remember their names but Let's just call them team A, B and C.

Team A developed a solar powered, electromagnetic locking mechanism. it used an arduino microcontroller to operate the biometric finger print scanner and open the magnetic lock. This was definitely the most flashy and complex of all the projects. What I liked about it most was it demonstrated their knowledge of programming as most of the functionality was brought to life through the Arduino and their understanding of circuit analysis to develop the sub circuits that run the backup battery and the lock mechanism.

Team B developed an alarm system using a PIC16F90 microcontroller. the alarm system used IR and photoresistive sensors and the comparator function of the microcontroller to send signals to a 555 timed speaker. While I found the execution of this project to be very intuitive and a nice display of concepts we've learned throughout or undergraduate studies, I wasn't too impressed with the alarm system as I've seen it done many times before.

Team C developed a water level detector that used a 555 timer exclusively as its microcontroller and relied on smart circuit design using wires as it's water level detector and a relay to power a motor to pump more water in when needed. I was thoroughly impressed by this project's simplicity and use of circuit design to circumvent any need for programming knowledge.

Overall, they were all good projects. Team C's water level detector is by far my favorite. I'm grateful for the opportunity to see what the capstone project course is about and look forward to the opportunity to take it myself.