IEEE News

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Institute of Electrical and Electronics Engineers, University of Florida

In This Issue. . .

Mission Statement:

This monthly newsletter will inform, entertain, and connect the students of Electrical and Computer Engineering at the University of Florida. This newsletter links students to our university and future workplace by presenting articles on our department, industry, and events hosted by the different campus organizations.

The IEEE News needs your help in making this a better newsletter. Please e-mail your comments, events, and ideas at IEEE.UF.Newsletter@gmail.com.

ECE Banquet: A Year of Transition, Team Building, and Growth

A year of transition, team-building, and growth described the Electrical and Computer Engineering Department in 2013-2014. Throughout this year, the department improved communication with the student body through quality emails, building teams, and continued strengthening industry relations.

The IEEE showed the ability to work with others. The IEEE participated and in campus events such as intramural basketball and football tailgates. They also hosted the basketball game against faculty as this is now a tradition, as well as socials for its members, and info sessions for the department. In addition, IEEE's hardware team won 10th place at the SE Competition, and the number of companies coming to the University of Florida to hold Info Sessions grew.

Ralph Jacobi, President of HKN, announced that during the fall semester seven new members were initialized and eleven more in the fall. He was happy to announce that Computer Science students will now be part of HKN. Throughout the year, HKN hosted an Info Session with WECE and was part of an outreach program to increase the number of students entering the STEM fields at UF from high school. Dr. John Harris stated that the ECE faculty increased up to forty-six. He also described changes in the EE curriculum. Microprocessors will now be required and new specialization classes will be added such as biomedical engineering, and EE Physics.

Scott Gulas of Texas Instruments then gave an inspirational speech. He started talking about his first Major, Marine Biology and how he later decided to change to Electrical Engineering. After graduating from UF, Gulas interned for AT&T and TI. At TI, he had different jobs. One of these jobs was verification of products, meaning that he had to find a way to take the product as a solution to the needs of customers. After this position, he realized that he could improve his department. He presented his ideas to his boss, who told him, "How fast can you find a replacement for yourself and start working?" and this is how Scott Gulas got his current job. He went after a job, instead of being offered one. His advice to students is to focus on best practice - show passion, look for satisfaction - do not take credit for someone else's work, know your strengths and weaknesses - embrace your skill set, most importantly, "don't shy away, take every opportunity."

Later, Ralph Jacobi presented the staff of the year award to Eric Liebner and Michael Stapleton. Trent Fields, new president of IEEE presented the Teacher of the Year Award to Dr. Greg Stitt.

Chris Sarli then introduced the new IEEE Executive Board, and Trent Fields ended the ceremony saying that he looks forward to the IEEE to keep making an impact and is open to new ideas.

Thank you to all the faculty, the Executive Board from IEEE and HKN, and all the sponsors who contribute to the success of the ECE Department for making this a memorable year.

- Valentina Rendon, CE Junior

ECE Ambassadors

This upcoming fall the Electrical and Computer Engineering Department is going to offer its students a new way to get involved within the department. The new ECE Ambassadors program will allow students to be the face of the ECE department through departmental tours and events as well as allow them to aid in improving alumni-student relations, developing freshman recruitment efforts, and working closely with ECE Department Chair. Applications for this program will go out at the beginning of this upcoming fall.

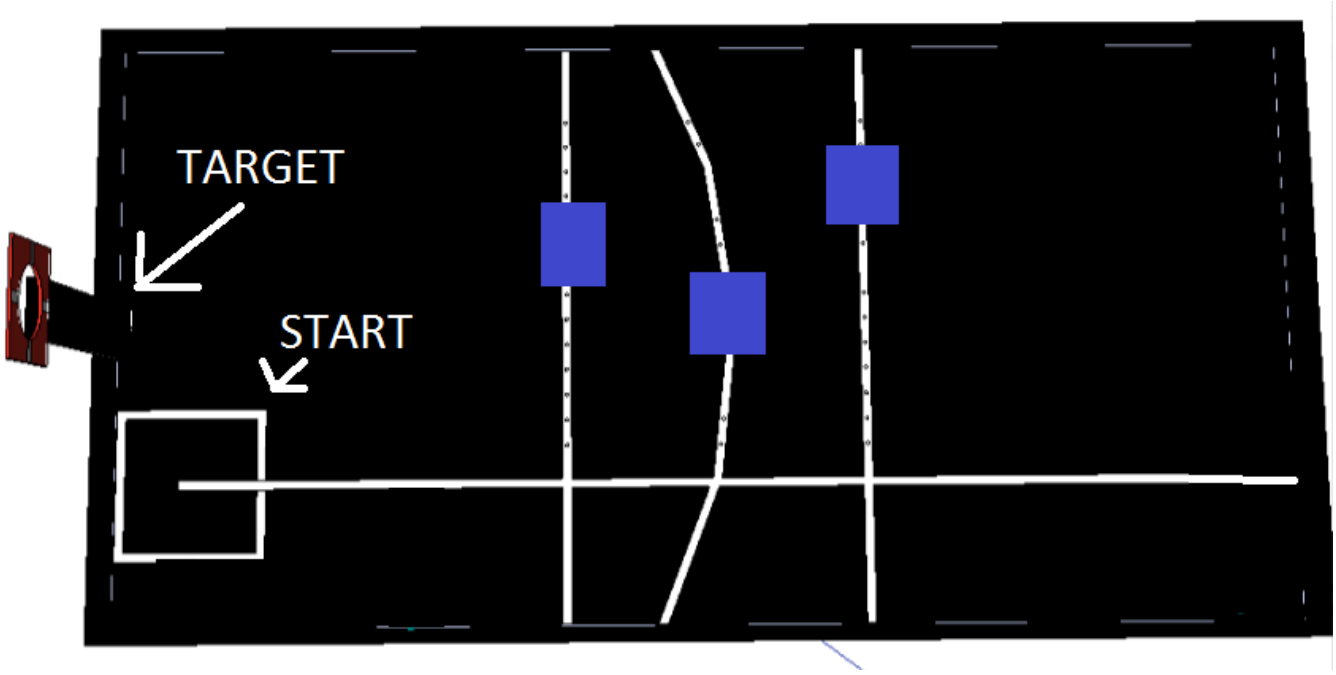
- Trent Fields, IEEE President

Basketball

This semester the ECE department held its 4th Semi-Annual Faculty/Staff vs. Student Basketball game. The Students team members were: Julio Chavez, Trent Fields, Kris Rea, Chris Sarli, Eric Schwartz, and Eric Shea. The Faculty/Staff team members were: Jose Fortes, John Harris, Charles Hawkins, Jack Judy, Dan Otts, Chad Overman, and Greg Stitt. The After a tough game, Faculty/Staff team took home the win with a close 21 - 18 victory. The leading scores for the Faculty/Staff team were: Chad Overman 7, Dan Otts 5. The leading scored for the Students team were: Trent Fields 12, Chris Sarli 6.

- Valentina Rendon, CE Junior

IEEE Hardware Team Robot Wows Competition



The UF IEEE entered a robot in the 2014 IEEE Southeast-Con that took place March 13-15. They entered their robot in the IEEE Hardware team competition. The robot had to autonomously navigate to three blue bean bags randomly arrayed on three different white lines. Then, they had to fire a nerf dart into a target at one end of the field from that position.

The UF team was composed of Forrest Voight, Jacob Panikulam, Khaled Hassan, Jason Nezvadovitz, Stephen Strassle, and Andy Ortiz. The team leader was Mason Turner, and the faculty advisor was Dr. Eric Schwartz. The UF team did not solve the challenge the obvious way. The other teams chose to implement line following to find the bean bags. That was was too easy for the UF team. They used a combination of LIDAR and computer vision to complete the mission. Because there were walls around the field, the team was able to deduce their position with LIDAR. Then they used a webcam to find the blue bean bags. Their software computed trajectories that would take the robot to all three bean bags. When they arrived at a bean bag they turned and fired their nerf dart into the target!

The UF team's drive train was more complex than the other robots. UF used mecanum wheels that enabled a holonomic drive (driving in any direction and turn in place) while most of the other teams stuck with a standard tank drive.

In the competition format, each team competed three times and was assigned a point score, and then the top scoring teams advanced to the finals. UF had technical difficulties and couldn't complete the first and third rounds. However, in the second round they achieved a time of 24 seconds, more than twice as fast as the next best time and came in 10th overall.

Overall, UF made a great performance. They approached the challenge in an innovative fashion and impressed the competition with their knowledge and creativity.

- Matthew Griessler, EE Junior

Marston Science Library: Good for Fish but Not for Gators

Twenty-seven years can be tough on things, but not on the resilient Marston Science Library. With its sturdy brick walls and shimmering french-fry-looking beacons of food-related art, Marston Science Library has been there for the SMART students since 1987 and, thus, has grown close to our hearts.

One of my favorite things about Marston Science Library is its timelessness. While trends get recycled over time, Marston's furniture has remained trendy with its stylistically outdated appearance. The I-remember-those-since-I-started-school computers, boxy wooden furniture, and lack of power outlets are all positive reminders of the 80s-I wasn't born yet, but I'm sure all these things were "a thing" back then.

Marston is more purposeful than other libraries on campus. Library West has its flashy escalators, but its renovators didn't take into account students' need for exercise. At Marston, you can study and work out by searching for an available wall plug at all times throughout the semester. And you always have the option of taking the stairsâĂęseveral flights of them. I'm sure many buildings have caused you to marvel at their architectural structure, but none have made you consider the meaning of art. Almost three decades, and we're still not sure what those yellow sculptures are supposed to be. Perhaps their designers were hungryâĂę hungry for knowledge, like those of us who frequent this library when Library West is crowded.

If "the swamp" was really a swamp, Marston Science Library would be a grotto. Not a grotto large enough for shelterâĂŤthat would be Library West. It would be more like a small indentation between mangrove roots, a perfect home for small fish and crustaceans. But, are we "The Florida Small Fish and Crustaceans"?

- Liz Dominguez, CE Sophomore