College of Engineering News

November 17, 2015

Georgia Southern University

Follow this and additional works at: https://digitalcommons.georgiasouthern.edu/cec-news

Part of the Engineering Commons

Recommended Citation

This newsletter is brought to you for free and open access by the Engineering & Computing, Allen E. Paulson College of - College Publications at Digital Commons@Georgia Southern. It has been accepted for inclusion in Engineering & Computing, Allen E. Paulson College of - News by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.
Mike Jackson Receives Chancellor’s Service Excellence Award

November 17, 2015

On October 21, University System of Georgia Chancellor Hank Huckaby awarded the Chancellor’s Service Excellence Award to N. Mike Jackson, Ph.D., P.E., chair of the Department of Civil Engineering & Construction Management.

The Service Excellence Award – Outstanding Leader recognizes administrator-level employees who, through their extraordinary leadership over the last year, demonstrated outstanding service to students, colleagues and other customers of the USG, and promoted a workforce culture that fosters “above and beyond” service experiences.

Dr. Jackson was nominated by Philip Bruce, Director of Career Services at Georgia Southern, who wrote: “Dr. Jackson has significantly enhanced and expanded the experiential learning program for Civil Engineering and Construction Management. Students in these majors have benefitted greatly from his increased focus on internships and co-op opportunities and more and more recruiters are hiring these students because they participate in these experiences. For these reasons and countless others, Dr. Jackson is most deserving of this award.”

In the 2014-15 academic year, Dr. Jackson incorporated a significant service learning component into the civil engineering and construction management programs. The department promotes community immersion and experiential service learning projects as the central theme of a transformative educational experience.
**Student Research Awards**

November 17, 2015

MSAE students Martin Muinos and Emerald Simons presented research papers at the ASME 2015 Internal Combustion Engine Division Fall Technical Conference, and received commendations for their work. Mr. Muinos's and Ms. Simons's research advisor is Dr. Valentin Soloiu. The conference was held Nov. 8-11 in Houston, Texas.

BSMechE student Zachariah Coles received an Outstanding Student Research Award from the Georgia Undergraduate Research Conference on November 7, 2015 for his research paper. Mr. Coles’s research advisors are Dr. Rocio Alba-Flores and Dr. Valentin Soloiu.

**Undergraduate Research Symposium Organized by V. Soloiu**

November 17, 2015

Valentin Soloiu, Ph.D., organized the Research Experiences for Undergraduates Symposium for the Council of Undergraduate Research (CUR). The mission of CUR is to support and promote high-quality undergraduate student-faculty collaborative research and scholarship. The Symposium took place Nov. 6 to 8 in Arlington, VA. Dr. Soloiu is an associate professor in mechanical engineering and holds the Allen E. Paulson Chair of Renewable Energy.

**Eagle Motorsports Competing in Baja 1000**

November 17, 2015

An 840-mile drive down the coast of the Baja California peninsula in Mexico might sound like a great way to enjoy some sightseeing, but for 13 Georgia Southern students, that drive will be dangerous, grueling and the opportunity of a lifetime.

The students are part of the University’s Eagle Motorsports Baja 1000 team, and are traveling to Mexico to compete in the second-largest off-road race in the world: the Baja 1000. While there, the student-based team will make history by becoming the first collegiate team to compete in the utility terrain vehicle-specific class, and the first collegiate team to compete in the race in more than three decades.

“It’s not a sustainable activity for us to go out and baby step into the field,” said Spencer Harp, team advisor and laboratory supervisor for the Department of Mechanical Engineering. “You get noticed for the splash that you make, so we’re just jumping in and doing something else that no one else has done.”

The team, one of three racing teams within Eagle Motorsports, was challenged with rebuilding a brand new utility terrain vehicle (UTV), a two-seat machine with a roll cage, from the ground up to meet SCORE-International requirements. SCORE-International is the governing organization of the off-road race.

In addition, the team worked with Hisun Motors to secure a corporate sponsorship, plus numerous other sponsors, to help with the cost of materials and travels to Mexico. They also had to prepare mentally and physically for the 840-mile course, which must be completed within 40 hours of crossing the start line.
“You’re not just riding down a dirt road, this is just a rough cut path through the middle of the woods,” Harp said. “Some of these paths haven’t been touched by man, period. You can go from riding down a smooth beach or smooth dirt road to going through mountainous rocky, terrain, crossing old riverbeds full of silt and sand. It’s an endurance race.”

Kara Dees, co-captain of the team and one of two female students traveling to Mexico, and Robert Branch, project lead, are two of the students that’ll be driving and co-driving the car. Both students said they have taken up various forms of exercise to prepare, but also are relying heavily on their faith and support system made up of friends and family, to prepare mentally for the challenge.

“The biggest thing is: to finish first, first you must finish. You have to beat the terrain first,” Branch said. “The co-driver has a duty and obligation of not only being your ears and eyes because you also have to watch out who’s behind you, but they are also normally your mechanic. Most of the time for professional and amateur racers, the co-drivers are the first person to step out of the car. If the driver is hurt or any changes need to be made communicatively, it is the co-driver’s responsibility.”

In addition to the driver and co-driver, there is a chase team that follows the course to support if anything goes wrong. For Eagle Motorsports, an additional support team on the East Coast will watch a live broadcast of the race and track the car with GPS to communicate with the chase team in Mexico.

“There are some areas of the course that are in a valley where our radio communications won’t work, our satellite phones won’t work and at times, you might be 100 miles from anyone who can help you. So there is a fear factor associated with it,” said Harp.

The team also faces another challenge—criticism from veteran racers, some who invest millions of dollars to participate in this race.

“Most teams spend a minimum of two years building a platform to go race, and we started a year ago with the idea, and spent six months trying to secure a corporate sponsorship, then building, designing and figuring out the logistics,” Harp said. “That’s a third of the time anyone else would normally attempt to do it. We’ve been told by several seasoned professionals that this was an absurd idea and we’re really reaching.

“But what they don’t understand is where they may have a team of two or three people, we’ve got 20-plus, well-educated engineering students making an effort to ensure everything is accounted for,” he continued.

Branch added, “We’ve had plenty of people ask ‘Why not start with something smaller?’ But a lot of people start to realize that time is a factor in everything they do. If someone came to you and handed you a once in a lifetime experience, and you knew that you’d have to work every single day to even come close to success, would you still take it? That’s what I was left with and I chose yes.”

And while Harp admits the team might be “in the dark a bit,” having accomplished so much in so little time is what is driving the team’s motivation.

“Being able to see our hard work come to fruition is the sweetest reward. This year long project has had many ups and downs along the way,” Dees said. “I am excited to make history by showing up as the first collegiate team to ever race in this [class of] competition.”

The Baja 1000 team departed for Mexico Nov. 9, and the race begins Nov. 20. Television coverage is available on CBS Sports Network and ESPN, and a live stream of the race will be available at www.score-international.com.