East Carolina University.

TECSCONNECTS News and Notes from the College of Engineering and Technology

NEWS

SPRING 2014

New Name-College of Engineering and Technology

On April 11, 2014, the Board of Governors approved a name change for the former College of Technology and Computer Science to add Engineering to its name, making it the College of Engineering and Technology.

The name change was approved by the Chancellor in the fall of 2013 but had to go through several approval processes before being voted on by the Board of Governors and receiving unanimous support from the other engineering programs in the North Carolina public university system.

The economic impact of changing the name was one of the major reasons for pursuing the change. According to Dr. David White, Dean of the college, "Our economic development partners inform us that our new name, the College of Engineering and Technology, is important for promoting economic prosperity in the East, which is consistent with our University mission. To attract new business and industry to our region, we must effectively communicate and promote our strengths and capabilities. Businesses and industries looking for a place to locate sometimes expect to learn what they



Science and Technology Building (Photo by Tull Worthington)

need online before ever approaching an economic development board. Now they will see that ECU has a College of Engineering and Technology, which will send the message to prospective business and industry that we can provide the engineering and technologyrelated talent that they need."

The name change will go into effect immediately. It will take some time to change all the signage and other print materials. Websites and other electronic material can be changed rather quickly.

"The vision of our college remains the same," states Margaret Turner, public relations coordinator and student recruiter for the college." We will continue 'to develop leaders whose knowledge, skills, and abilities improve quality of life and promote economic development and prosperity.' We will also continue to recruit strong students into all of our programs and then place our graduates, that are well-prepared for the workplace, in high-demand jobs that pay well."

White adds, "A name and brand is very important. Our new name will provide the College and the University with greater visibility for prospective students and faculty, it will enhance our opportunities to secure external research funding, increase economic development opportunities, and more accurately identify the programs in the College."

ECU Hosts Kickoff Event for Robotics Competition

Nearly 500 high school students from across North Carolina and as far away as Virginia and South Carolina met in excitement Jan. 4 at East Carolina University to get a first glimpse into the 2014 FIRST Robotics Competition.

More than 2,700 robotics teams made up of 70,000 high school students around the world viewed the live NASA-TV broadcast and webcast, which was shown at ECU in Hendrix Theatre. ECU was one of 92 host sites, and it's the first time the competition has launched east of Raleigh. The day also included the delivery of parts kits to each visiting team, and the chance to get started on their robot design with the help of ECU Department of Engineering faculty and community mentors.

"Part of our university's mission is to provide service and opportunities to citizens in the eastern region of the state and this event does that," said organizer Evelyn Brown, an ECU engineering professor.

"We also believe many of these students who participate in robotics competitions are suited well for our College of Engineering and Technology majors: computer science, construction management, engineering, and technology systems. Exposing them to our campus may help them choose ECU or simply choose to seek additional education after high school."

FIRST founder Dean Kamen aims to inspire young people's interest and participation in science and technology. He founded the not-for-profit public charity in 1989. Since its inception, FIRST – meaning For Inspiration and Recognition of Science and Technology – has grown from 28 teams in a New

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SPONSORED BY







3-D Printers at ECU inspire students to learn more about emerging technology

An East Carolina University course that included fabricating designs on a 3-D printer captured the imagination of two students who went on to build their own machines.

Matt McCotter and Brad Raynor, both seniors in the Department of Technology Systems, were enrolled in professor Ranjeet Agarwala's rapid prototyping class last year when they first used a 3-D printer. The machines create what their name implies: 3-D objects that are printed using various materials such as raw plastic or a powder substance based on designs created as ".STL" files.

The College of Engineering and Technology houses four industrial 3-D printers, which are shared across multiple disciplines. There is also a 3-D printer in the Office of Innovation and Economic Development. Instruction on those machines can help students bring innovative ideas to future careers, Agarwala said.

"We'd never seen anything like it before we were in the class," McCotter said.

"You're not taking a block of something and cutting away from it, you're taking a design and hitting print," Raynor said.

The pair paid for a weekend workshop

in Raleigh soon after in which a company provided them each with a kit and taught a class on building personal 3-D printers. They worked into the night to assemble and test the machines and have been using them ever since. Even the printer's gears are created using 3-D printer plastic. If a part breaks, they can print another.

McCotter and Raynor are primarily printing small novelty objects and gifts for friends and family. However, there are also significant real-world advantages to the machines.

Agarwala has found that the ability to make prototypes is promising for a range of fields including art, cartography, architecture and building, automotive manufacturing or even medicine.

"If you want an idea of what something (you're creating) will be, this is like a rough draft," Raynor said. "They can look at it and see what needs changing."

It can also be a teaching tool, Agarwala said, as it promotes understanding not only through sight but through touch.

"It gives students an end goal," added Sheldon Dryer, another senior who has experience in 3-D printing. "You can design it, but at the end of this you can



Matt McCotter and Brad Raynor (Photo by Cliff Hollis)

have it and take it home with you.

"(As a designer), you're taking what (faculty) have taught you so far and creating something completely on your own."

Raynor said he imagines the buzz around 3-D printers will grow similarly to when personal computers first came on the market. It'll be a small community at first, he said, but demand will grow and machines will get more affordable. And there'll be no assembly required.

"(With 3-D printing) anything you can think of, you can now create," Raynor said.

> - Kathryn Kennedy, ECU News Services

ROBOTICS COMPETITION, CONTINUED FROM FRONT PAGE



A student begins working on his team's robot during the kickoff event.

Hampshire high school gym to the 2,700 teams competing worldwide.

Every year, the teams get a new game challenge for competition. This year's challenge is called Aerial Assist and is played by two competing alliances of three robots each on a flat field. The objective is to score as many balls in goals as possible during a two-anda-half-minute match. The robots are required to work together with other robots, each designed and built by different teams.

The challenge encourages "coopertition" – a term coined by FIRST. Coopertition is "displaying unqualified kindness and respect in the face of fierce competition. It is founded on the concept that teams can and should cooperate with each other even as they compete."

Pitt County high school students have competed in the FIRST Robotics Competition since 2008. Bill McClung, an engineer at PotashCorp in Aurora, heads up the team as lead mentor and coach. The Pitt Pirates have grown from just a few students to almost 45 on the team now. This year's team includes students from all six high schools in the county. Like all FIRST participants, the team will have six weeks to design, build and plan how their robot can be the most successful in the competition.

The Pitt Pirates will travel to Raleigh in mid-March to compete in the first of two regional events. How they fare there will determine their ability to compete at the international level this April.

"It's a true taste of the real world," McClung added. "The competition requires students to work together. Some students who understand calculus may not be able to turn a screwdriver as well or operate a lathe. We have a wide variety of students and teamwork is a large part of the challenge."

More information about the FIRST Robotics Competition is available online at www.usfirst.org.

> - Margaret Turner, ECU News Services

Message from the Dean It's A Great Day (YEAR) To Be A Pirate!

Many of you have probably heard ECU Chancellor Steve Ballard exclaim these words at university events. This is one of my personal favorites because that's truly the way I feel about the place I have the good fortune to go to work to every day! But this year I need to change it to "It's a Great YEAR to be a Pirate!" I would say that this has been a great year for the College beginning in September with a special visit by NC Secretary of Commerce Sharon Decker and continuing through to April's Board of Governors meeting.

On April 11 – 12, the UNC Board of Governors approved our request to rename the College to the College of Engineering and Technology! We have been working on this important name change for about five years. Chancellor Ballard and Provost Marilyn Sheerer provided outstanding leadership and support for the new name. Our economic development partners inform us our name, the College of Engineering and Technology, is important for promoting economic prosperity in the region, consistent with our University mission. The new name sends the message to prospective business and industry that we can provide the engineering and technologyrelated talent that they need. At the same Board of Governors meeting, our proposal to establish a master of science degree in biomedical engineering was also approved. This exciting new program will begin in Fall 2014.

There are many other good things happening. Since our primary focus is on student success, you will see several articles on student accomplishments throughout this newsletter. We're seeing very positive trends in hiring, particularly in some of the areas that were hit hardest by the recessions. Our second REU (Research Experience for Undergraduates) was awarded by the National Science Foundation. We will be offering REUs in both computer science and engineering this summer. I expect several other funding awards in the near future, primarily because faculty have been working hard to submit a large number of high-quality proposals to support their research and scholarship. Several of these proposals relate to sustainability. The Center for Sustainability joined the College this year. Sustainability is a theme that is woven throughout the curricula of most of our college's programs. I believe that we can be



David White, Dean College of Engineering and Technology

leaders in this area as we focus on sustainability as it relates to tourism, natural resources, and the built environment.

As we head toward the end of this fiscal year and plan for next year, we are again going to be challenged by reductions in our state support. We are asked to plan for another permanent budget cut that may be in the range of 1% - 3% of the College budget. There is no doubt that the College is an extremely important contributor and catalyst in NC's economic recovery, particularly in our eastern region. But, we are now at a point where a very large challenge is to find the resources needed be able to hire enough faculty to handle our growing number of undergraduate and graduate majors.

Your support continues to be extremely important!! Please continue to support the College in any way that you can. Talk with prospective students and their parents about the great education they can receive here at ECU. Consider contributing to a scholarship fund to help our students defray the everrising costs of education and graduate without a huge load of student debt. We can continue to be excellent if we work together!

- David M. White, Dean

ECU leads efforts for responsible travel

Consider a new holiday tradition this year: green travel.

That's the goal of the East Carolina University developers of the United States Travel Care Code.

The Center for Sustainability: Tourism, Natural Resources, and the Built Environment at ECU developed the travel care code, which encourage travelers to take a pledge to travel responsibly with 10 easy steps. The tips include learning about your destination, continuing good habits while on vacation - like recycling - and being a fuel-efficient traveler.

"All are somewhat common sense but they're great reminders," said Scott Gray, a dual ECU business administration and sustainable tourism master's degree student who manages the Travel Care Code for the center. One example: setting the air conditioning in a rental at a reasonable temperature and not having it so cold that your sunglasses fog up when you walk inside. "Anyone traveling should be attentive

and aware of traveling green," Gray said. The center developed the code to help educate, inform and influence as

many visitors and travelers as possible. It's available for free use and re-

publication for destination marketing organizations, convention and visitors' bureaus, tourism development authorities, hotels, and other hospitalityrelated organizations and businesses as a way to promote responsible travel, Gray said. Tourism organizations in Colorado and Florida are already using the code.

In his research, Gray found little on green travel designed for the general consumer. "We want everyone to use it," he said.

According to Destination Marketing Association International, there is a growing movement of travelers committed to ensuring their impact



Graduate students Scott Gray and Keturah Mayberry with Pay Long, Center Director (Photo by Cliff Hollis)

on tourism destinations is positive and supportive of ongoing sustainable tourism programs.

The travel care code is one way travelers - and the tourism industry - can help.

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NEWS

High school students explore STEM disciplines at ECU

Roughly 300 high school students from eastern North Carolina experimented with concepts in science, technology, engineering and math (STEM) at East Carolina University on Feb. 21.

The "future engineers and researchers" were enthusiastic about the day's opportunities, said Shawn Moore, assistant director of the Center for STEM Education at ECU. They participated in hands-on activities related to STEM degrees and careers. This is the third year ECU has hosted the event.

"This day will show them what the next step is in their academic career," said Moore.

As an ECU graduate, Moore recalled having an interest in science when he was younger. "We're fueling the fire. This is the opportunity for them to see beyond where they are now."

Accompanied by their teachers, the high school students attended sessions led by ECU professors and students from 10 a.m. until 1 p.m.

Sessions include engineering, physics, technology, mathematics, chemistry, biology, construction management, computer science, geology, geography, atmospheric science and math education.

John Kenney, assistant chair for undergraduate studies in Department of Physics, provided students an activity identifying elements using spectroscopy. Using light, students had to match the colors emitted to identify different gases like neon and hydrogen.

Kenney said the session was fun, accessible and beautiful. He wanted to



Pine Forest High School student Miesha Brown of Fayetteville, right, interacts with ECU construction management teaching instructor Bryan Wheeler during a STEM Day presentation. (Photo by Cliff Hollis)

participate in STEM Day because he enjoys teaching students interested in the subject matter and encouraging students to enter the physics discipline, he said.

One of the math sessions was provided by Heather Ries, associate professor of mathematics, who used a hands-on activity to present algebra differently. Students wrote their favorite color, associated each letter with a number and used algebraic equations to encode a new word for their partner to decode.

Two high school juniors from Northside High School in Pinetown, Norvia Jennette and Kelsey Lange, attended Ries' math session. Lange said she enjoyed learning more about the different majors offered at ECU. Before today, she said she thought ECU was an "artsy school."

"I liked that (the activities) were very hands-on and you got to experiment," said Jennette, who is interested in forensic science. At STEM Day, she learned more about how forensic science relates to mechanical engineering and said she is now considering a degree in engineering.

Catherine Coleman, an English teacher at Hoggard High School in Wilmington, brought 21 students with her to STEM Day. She described the event as a unique way to visit a college. "I'm hoping they learn what's involved in those majors and the careers associated with them," she said.

Margaret Turner, public relations coordinator for the College of Engineering and Technology, organized this year's event. She said most attendees were high school juniors who are beginning their decisions about college.

The undergraduate and graduate students who assisted with the event take pride in helping expose the high school students to ECU and the education ECU offers. "This is the first time some students are even on a college campus," said Lisa Eckert, a senior biomedical engineering student.

"We get a lot of students (attending STEM day) who don't understand exactly what these majors mean," said Betsy Mitchell, senior mechanical engineering student at ECU. "I didn't understand what engineering was until I came to ECU."

> - Jamitress Bowden, ECU News Services

RESPONSIBLE TRAVEL, CONTINUED FROM PAGE 3

The code was adopted from a similar one first developed in New Zealand through the work of Miles Media's Chris Adams, who chairs the industry advisory board for the ECU center. "His company has done a lot in terms of opening doors and hosting the website," said Dr. Pat Long, director of the center in the ECU College of Engineering and Technology.

The code supports the adage, "think global, act local," Adams said. "It identifies where the areas are that travelers can make a difference," he said. "Obviously this is not designed to be a complete solution, just a partial solution."

Adams said the center at ECU is a good home for the travel care code. "It gives academic weight and organization and promotion to the care code," he said.

Faculty and students first started talking about developing the code about three years ago. Whitney Knollenberg, an ECU graduate now enrolled in a doctoral hospitality program at Virginia Tech, used the travel care code as her graduate assistant project. She researched and crafted the 10 items, which were taken to faculty groups and ECU's sustainability committee as well as industry groups for feedback.

Keturah Mayberry, an ECU graduate assistant at the center who is pursuing a master's degree in accounting, did initial work to set up and maintain the travel care code's Facebook page: https:// www.facebook.com/TravelCareCode. The center is actively seeking

sponsors for the code to help promote and market efforts.

The center, part of the ECU College of Engineering and Technology, advances research and outreach aimed at affecting change in tourism business practices, public policies and individual traveler behaviors that lessen negative impacts of travel while enhancing travel's positive outcomes for both travelers and their host communities.

For more information, visit http:// www.sustainabletourism.org.

> - Crystal Baity, ECU News Services



Information and Computer Technology Student Selected as Part of a National Cisco Live Dream Team

Courtney Church, a student in Information and Computer Technology (ICT), has been selected as one of ten students across the nation to be part of the Dream Team at Cisco Live, an international education and training event for Cisco customers, experts and partners. Cisco Live will be held in San Francisco, May 18-22, 2014. Over 20,000 people are expected to attend the event.

The Dream Team will work hands-on alongside industry leaders to support the Network Operations Center (NOC) and support Cisco customers at the Help Desk during the weeklong event. Supporting the network is hard work, long hours, and a whole lot of walking. The IT support is crucial to the success of the event and provides invaluable experience for those selected as part of the team. The team works directly with Cisco engineers, has full access to the event sessions, and gets excellent exposure and recognition. They also have the opportunity to take a Cisco certification exam at the end of the week.

Church was one of 80 applicants for the Dream Team, which required a written application, a video explaining why they should be selected, and a written recommendation from an instructor. Steve Baker, teaching instructor in the ICT program, recommended Church for the team. Baker states, "She is very sharp, very responsible, and a leader. She is always quick to lend a hand to fellow



Courtney Church (Photo by Jay Clark)

teammates and works towards project completion with diligence and resolve. I know she is very capable and would be a good fit for this team."

Church is a non-traditional student taking a full load of both on-campus and online courses, and works full time as a co-op in Customer Advocacy Laboratory Operations (CALO) at Cisco in Research Triangle Park. She is originally from Illinois, but has lived in Jacksonville, NC for the last twenty three years. Church first attended ECU in 2001 but did not finish and began working at Best Buy, a large electronics retailer. She was quickly promoted to various positions in their Geek Squad®, a customer support group for electronics sold in the retail store.

According to Church, "I felt stuck and in a rut. While I loved electronics and being around them, I was more interested in fixing them and figuring out how they worked. It was then I decided to go back to school and get a degree in ICT. I have always had a heart for purple and gold and knew I would return to finally finish my degree in something I was passionate about." She enrolled in the first Cisco course in the fall of 2013.

With maintaining a 3.5 GPA, and at the encouragement of Baker, Church decided to apply for the Dream Team. "I think what made me stand out compared to other applicants is my motivation and drive to succeed." This was evident her ability to maintain a 3.5 GPA while working full time and attending classes. Her willingness to work 72 hours straight at Cisco during a recent snowstorm to support the lab operations helped to seal the deal.

"By participating on the team, I hope to accomplish several things," Church adds. "First, I want to define myself as a person and as a female in a very maledominated field. Second, I want to put ECU out there. ECU's ICT program is one of the best. And lastly, I want to build my resume. This opportunity stands out to recruiters and shows that I am not afraid to take on a challenge."

Church will receive an all-expense paid trip to San Francisco for the event, traveling out a few days early to help set up the operations center. She plans to graduate in May 2015 and hopes to eventually work for Cisco in a full-time position. She also plans to pursue a graduate degree at ECU in Network Technology, with a concentration in information security.

FACULTY HIGHLIGHTS

Dr. Junhua Ding, Associate Professor of Computer Science, was awarded the ECU Scholar-Teacher Award for 2014.

Dr. Syed Ahmed, department chair for Construction Management, was a faculty inductee into the Sigma Lambda Chi International Construction Honor Society.

Dr. Mike Behm, Associate Professor in the graduate program for Occupation Safety, was an invited speaker at the International Skyrise Greenery Conference in Singapore in the fall. Dr. Behm also conducted a workshop on Design for Safety of Skyrise Greenery.

Ms. Sue Sayger, Construction

Management teaching instructor, was inducted into the Sigma Lambda Chi International Construction Honor Society.

After receiving the Dr. William E. Tarrants Outstanding Safety Educator Award sponsored by the American Society of Safety Engineers, **Dr. Hamid Fonooni** presented a recent conference titled "International Network of Safety and Health Practitioner Organisations" in Canada.

Dr. Tarek Abdel-Salam, Engineering Professor and Associate Dean of Research for the College of Engineering and Technology, was identified by senior students as "the person at ECU who made the most significant positive contribution to a student's education." This is an important selection and Dr. Abdel-Salam was recognized at a reward luncheon hosted by the Provost.

Dr. Robert Chin, professor in the Department of Technology Systems, recently received the Orthogonal Medal, which is presented to individuals in the field of graphics. The award is recognized nationally as one of the most respected awards in the field of engineering graphics. As a result, Dr. Chin will be the 2014 Distinguished Lecturer at the 30th Annual Distinguished Lecture series at NCSU.



STUDENT HIGHLIGHTS

Ben McKinzie, Jr, an Information and Computer Technology student, recently received the 2014 Robert H. Wright Alumni Leadership Award. This is the most prestigious award presented to graduating seniors.

Six Engineering students recently placed third in the ASME Student Professional Development Conference titled " Lighter Than Air UAV" at Clemson University. These students include: David Chen, Garrett Gore-Stevens, John Pope, Alan Zhang Register, Brandon Freeman, and Thomas Hope.

The following students were inducted into the Sigma Lambda Chi International Construction Honor Society for Spring 2014: Jake Carter, Mark Cissi, Jason Davis, Peter DiMassimo, Tomas Jerez, Stephen Mozingo, Michael Nero, Zachary Rowe, Tyler Waddell, and Anthony Williams.

Two engineering students, **Tyree Parker** and **Michael Kennedy**, recently attended the Institute of Electrical and Electronics Engineers (IEEE) Region 3 Conference and participated in a website competition, leadership training, technical workshops, and also networked with potential employers and peer engineering students from nearly thirty universities.

Several engineering students were recognized at the Undergraduate Research and Creative Activity (URCA) awards for 2013-2014 and received funding for their future research work: **Megha Sinha, Alex Bryan, Andrew Ritz, Layne Barefield, Cody Temple, Stephanie Nguyen**, and **Rana Abdel-Salam**.

The following Information and Computer Technology (ICT) students recently competed in the annual Collegiate Cyber Defense Competition (CDDC): David Morton, Carl Miles, Touseef Bhatti, James Hoover, Charles Alvarado, Joshua Buck, Charles Ogles, and Lindsey Esslinger.

Six engineering students traveled

to the University of Central Florida in Orlando to compete in the 2014 Human Powered Vehicle Challenge sponsored by ASME. These students were Kevin Nicole, Edward Bryant, Nicolas Garcia, Joshua Webster, Michael Yaeger, and Tyler Martin. Two other students, Vincent Holley and Christopher Jeffries, also participated on the team, but were not able to travel.

Several engineering students won awards during the Research and Creative Achievement Week (RCAW). Amos Cao won for his oral presentation with his capstone team of Megha Sinha, J'Manda Dunston and Caleb Malpass and Megha Sinha won for her poster presentation. Both competed in the Engineering and Technology category.

Multiple students, both graduate and undergraduate, from the college competed in the oral presentations for RCAW. These included: Rana Abdel-Salam, Joseph Patterson, Sarah Gurganus and Scott Barber. Arman Samavatian, Ali Ahahbazi and Steven Watson. Other students competing in the poster presentations included: Rakan Aboibakr, Julian Brinkley, Joseph Crowder, Elza Green, Yuan He, Charles Hegler, Brandon Jenkins, Chris Lawson, Ronan McAleenan, Stephanie Nguyen, Jadesola Olaoye, Joseph Patterson, Chris Phipps, Alexandria Podolski, Jacques Ray, Miranda Rogers, Richard Steiner, and Bryan Tucker.

Eleven construction management students were inducted into the Sigma Lambda Chi International Construction Honor Society in October. The students are as follows: Andre Brown, Andrew Garrard, Jake Hart, Dan Kovacs, Warren Harvey, Jared Markhum, Matt Ruffin, Clay Sobocinski, Megan Sommer, Brooks Valtin, and Andrew Whitlock.

Mark Lewis and Richard Everhart, Information and Computer Technology students, were recently nominated for membership in the Honor Society of Phi Kappa Phi.

The following graduate students in MS Software Engineering achieved Certified Tester, Foundation Level (CTFL) professional certification from the International Software Testing Qualification Board: **Atif Ghafoor**, **Chauncey Perry**, **Arman Samavatian**, and **Ali Shahbazi**. Our student success rate for passing the exam is 100%.

Three graduate students, **Leah Joyner, Emily Ayscue**, and **JP Duncan**, from the Center for Sustainability, presented at a Parks, Recreation, and Tourism symposium where they presented tourism related research with graduate students from North Carolina State University.

Two graduate students in Occupational Safety won awards at the fall American Society of Safety Engineers (ASSE) Region VI professional development conference in Myrtle Beach. Ogaga Tebehaevu was awarded first place in the graduate student poster competition for his poster titled, "Integrating **Occupational Safety Courses** into Undergraduate Engineering Curriculum" and Marc Bitner was awarded third place in the graduate student poster competition with his poster titled "Effects of Fatigue on Driving."

Shan Newton, graduate student in Sustainable Tourism, and Dr. Cynthia Deale, Hospitality Leadership, had an article titled "Introducing Evidence-based Management into the Hospitality Curriculum: A Case Study" accepted for publication in the Journal of Teaching in Travel and Tourism.

Six Construction Management students competed in the Residential Construction Management Competition at the International Builder's Show in Las Vegas, NV in February. Students competing were Leanna Becker, Ben Avolis, Courtney Carter, Dylan Hutchinson, Brantlee Jobe, and Alex Littleton.

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Engineering Professor Awarded REU Funding

Dr. Stephanie George, Assistant Professor in engineering, received a \$288,000 award from the NSE for a research experience for undergraduates (REU), to be hosted at ECU beginning in May 2014. The REU, titled **Biomedical Engineering in** Simulation, Imaging, and Modeling, will host eight students for ten weeks on campus. Students will begin with an intensive research

course and then use a multidisciplinary approach using simulations, imaging and modeling as a common thread. The REU hopes to increase awareness of and application to graduate school. The



Dr. Stephanie George

The first was awarded in 2013 to Dr. Junhua Ding in computer science, which began summer 2013. Both REU's are three year grants that host students on campus for ten weeks. Plans to coordinate various social

This is the second REU

to ever be hosted at ECU.



Dr. Junhua Ding

events between the groups of students are underway.

Dr. David White, Dean of the College of Engineering and Technology adds, "These two NSF **REU** awards allow undergraduate students in computer science and engineering the opportunity to experience cutting-

edge research work with a faculty mentor. They often come away from the REU experience with a desire to pursue a graduate degree and a career as a research scientist.'

College Expands Sustainability Focus

Building upon its historic core value of sustainability, the college recently added a Center for Sustainability which will focus on tourism, natural resources, and the built environment. This center, previously housed in the Division of Research and Graduate Studies, administers the nation's only interdisciplinary Master of Science in Sustainable Tourism (MS-ST) degree program (approved January 2010). This research-focused academic program prepares graduates to manage the challenges facing the world's largest industry-tourism, historically a large consumer of energy and water, generator of substantial waste, and which can alter landscapes and cultures if not planned and implemented in a sustainable fashion. The MS-ST was recently identified by the British Broadcasting Company as one the top five places in the world to study sustainable tourism and this past academic year accepted its first international student hailing from Ecuador.

Recently, through funding from the Environmental Protection Agency, students conducted energy audits on coastal vacation rental properties and prepared individual property reports on pollution prevention strategies. In another research venture, students are working with weather and climate data, to better understand how tourism businesses can effectively utilize historic data in their activity planning and marketing strategies.

Currently the Center is engaged in

a variety of outreach projects specific only to tourism but will be expanding aggressively into other industries with assistance of the college's talented faculty and staff. In partnership with the North Carolina Division of Environmental Assistance and Customer Service, the center has developed an industry sustainability recognition program for tourism. Called NC GreenTravel, (www.ncgreentravel.org) this program promotes robust economic growth and environmental stewardship in the travel and hospitality sector through the recognition of "green" traveloriented businesses. On another front, in partnership with MilesMedia, Inc., the center has developed the United States Travel Care Code (www.travelcarecode. org) designed to provide travelers in the United States with information on how to reduce the negative impact of their travel and visitor related activities.

The center is entering a new era and it is an exciting time. We look forward to expanding our role and capacity to prepare our students for the workforce, conduct meaningful and quality research, and to provide services to businesses and communities to assist them in meeting their sustainability goals.

Center for Sustainability Staff:

Dr. Patrick Long, Director Dr. Mike Behm, Assistant Director Dr. Huili Hao, Research Associate Dr. Jason Oliver, Graduate Program Director

Dr. Carol Kline, Assistant Professor Dr. David Edgell, Sr., Research Scholar, Planning and Policy

- Mr. Alex Naar, Director of Sustainable Tourism Outreach
- Ms. Keturah Mayberry, Coordinator, Graduate Student

Examples of student placement:

• Erin Harris is a Program Manager with Rural Support Partners in Asheville, NC.

• Whit Winslow is the Acting Executive Director for the North Carolina Wine and Grape Council located in Raleigh, NC.

• Garrett Ziegler is working on sustainable economic development with the Michigan State University Extension out of Grand Rapids. MI.

• Michaelina Antahades is Group Sales Manager for the Nascar Hall of Fame in Charlotte. NC.

 Erin Green is an Associate with McCabe Travel World in Washington, DC.

 Scott Gray is joining Ipreo as an Operations Associate in Raleigh, NC.

• Sam Myers is joining Advanced Energy, a nonprofit training, consulting and research firm out of Raleigh, NC.

 Whitney Knollenberg is a PhD student at Virginia Tech; Stefanie Benjamin is a PhD student at the University of South Carolina; Alison Murray is a PhD student at Penn State University; Emily Ayscue is a PhD student at the University of Georgia; and John Delconte is a PhD student at the University of Massachusetts.

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You Make a Difference!

I am happy to report that through a combination of endowed scholarships. annually funded scholarships, and gifts to our scholarship accounts, the College of Engineering and Technology was able to award a total of \$55,770 in scholarships to 39 students for the 2014/2015 school year. We are very grateful and thankful for all of you who have made this possible through your financial gifts to the college! Your support is so important to our continued success because in addition to making a quality education more affordable for many of our students, your scholarships also enable us to attract some of the brightest students for our programs. Thank You! I look forward to working with many of you in efforts to grow our endowments and increase our annual scholarships for years to come!

There are many other ways to support the college as well and all

are vital to the advancement of the College of Engineering and Technology. Some of you have established lab endowments to ensure that we have state of the art equipment in place to allow for leading edge instruction. An endowed professorship for Construction Management has been established and is next in the queue for a one third match by the State of NC! Many of you continue to support our college through the annual fund or annual gifts that often go to support the operations of the college. With more state funding cuts on the horizon, your continued support has never been more critical. Thank you for all that you do!

It is so very important for us to be able to stay connected with our alumni and friends. Thank you to Gregory Poole Equipment Company for continuing to provide the financial support to make this newsletter publication possible. On behalf of the College of Engineering and Technology, I want to thank you all once again and encourage you to give me a call or send me an email to schedule a visit to discuss your philanthropic interests.



Scott Snead

All the best,

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