

## TECS NEWS

# Grant-funded ECU course teaches research practices to undergraduates

A group of 10 undergraduate students got an opportunity to conduct graduate-level research this summer through a grant-funded program based in software engineering at East Carolina University.

Intended to expand students' critical thinking skills and prompt interest in graduate programs, "Software Testing: Foundations, Applications and Tools" accepted students from ECU and five other universities spread across three states. College of Technology and Computer Science professor Dr. Junhua Ding led the 10-week course.

"At my school, nobody does research unless you're a grad student," said Elijah



**Robert Boykin of the University of South Carolina presents his research to classmates during a summer course in software engineering led by Dr. Junhua Ding. (Photos by Cliff Hollis.)**

Participating students agreed that the course curriculum was outside the normal scope of their studies.

"In my major, I just sit in a classroom and take in information," said N.C. Central University senior Yesenia Velasco. "This is a lot more applied. It takes you out of your safety box."

"As soon as I understand a concept, then I create (a software test) for myself," she added. "It's like making your own math formulas. You usually don't do that, you just use them."

ECU senior Brandi Amstutz said the class was "much more personal" than other classes because of the small size. And she said it was easier to ask questions of the professors and graduate mentors.

Adams said it was also a boom for his self-confidence.

"If you introduce (research) to us now, now I'm not scared," he explained. "I'm like, 'I can go to grad school. Research? I can do this all day!'"

Other students in the class were Robert Boykin of the University of South Carolina, Rob Grimes of Georgia College at Milledgeville, Lewis Whitley of UNC-Pembroke and Andre Anglin, John Darrow, Ernest Holston and Asa Kamali, all of ECU.

The course ended July 26.

- Kathryn Keddedy,  
ECU News Services



*Dr. Junhua Ding*

Adams, a rising senior at UNC-Greensboro. He said that his work at ECU this summer went beyond the foundations and theory courses that have made up his college experience thus far.

"It's not just knowing to press a button to test (a software program), but asking why do I need to press that button and knowing what tools to use," Ding explained.

Students spent much of the course working on a project of their choosing. Some were interested in cloud

computing, others in data mining, security systems or mobile applications. But each was exposed - for the first time - to the research process: Selecting a topic, surveying existing works, presenting findings, writing reports, making revisions, conducting experiments and citing references.

It was the first "Research Experience for Undergraduates" project funded at ECU, according to Dr. Mary Farwell, director of undergraduate research. The National Science Foundation award totaled approximately \$360,000 and the course will be offered again next summer.

"Undergraduate research is a crucial program as it allows students to engage in their subjects outside of a traditional classroom environment," said Farwell. "It has been shown to promote retention in the sciences, retention at the university and it assists students in making career decisions."

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**Gregory Poole**





# TECS Hosts Pharmaceutical Open House

On September 25, 2013, the College of Technology and Computer Science (TECS), in collaboration with the Department of Chemistry, hosted its first annual Pharmaceutical Open House. The event was a huge success with over 85 students attending.

Eight pharmaceutical companies who are “actively recruiting,” visited the Science and Technology building in order to meet prospective employees, or current students, who are obtaining degrees in areas such as engineering, computer science, information technology, distribution and logistics, chemistry, and biochemistry.

(multiple locations), Purdue Pharma LP (Wilson), Sequence Validation, Inc, (multiple locations), The West Company (Kinston), and Novo Nordisk (Clayton).

Eastern NC has a substantial “pharmaceutical cluster” of industry. These companies are seeking graduates with degrees in the very programs we

offer. David Harrawood, CITE director in TECS, and organizer of the event states, “we want to help students find jobs that will further their careers and also keep them in NC. ECU has a tremendous impact on the economic development of eastern NC. Offering an event such as this displays our commitment to furthering that development across our region.”

Dr. David White, Dean of the College of Technology and Computer Science, and Dr. John Sutherland, Interim Dean of the Thomas Harriot College of Arts and Sciences had opening remarks for the students and company representatives. They both encouraged the students to take advantage of the opportunity before them, with the first event of this type being offered.



Mike Putnam, ECU TECS alumni, and owner of Sequence Validation Inc, talks with a student about a potential job opportunity.



Students talk with hiring managers about internships and job possibilities at the Pharmaceutical Open House.

Representatives attending were primarily hiring managers from pharmaceutical companies including DSM (Greenville), Hospira (Rocky Mount), Metrics (Greenville), PCI

Dr. White stated, “There are many great employment opportunities in the pharmaceutical field for our graduates.” He encouraged students to “seek out opportunities for internships and co-ops to best prepare for these great jobs.” Ms. Karen Thompson, Director of the Career Development Center, also encouraged the students to realize the potential of job opportunities that were available to them.

Students were able to speak with company representatives, ask questions, and provide copies of their resumes to the hiring managers in an informal, non-threatening environment. Having industry partners provide feedback to the students is equally important. Faculty were able to talk with the hiring managers as well, to ensure that our graduates are meeting their needs from an academic standpoint, skills, and in general, with possessing quality hiring attributes.

# Construction Management Participates in NCDOT High School Construction Career Days

Over 1,500 high school students from eastern NC attended a two day event hosted by the NCDOT titled “High School Construction Career Days” on September 18th and 19th at the Pitt County fairgrounds. Students from as far east as Dare County came to further their education about the construction industry. The Department of Construction Management hosted a table and talked with the students about considering ECU’s program, which is the largest in the southeast and



was the first program of its kind to be accredited in NC.

According to Mr. Bryan Wheeler, teaching instructor in the department, “we were able to educate, engage, and interact with students to help them identify educational and career paths in the construction industry.” Students were also able to meet industry professionals and participate in hands-on operations of large construction equipment most commonly used in the industry.



# Message from the Dean

## Help us make a Difference

As you can see from the articles in this edition of TECS-CONNECTS, faculty and students in the College are doing great things that make a difference! This fall we welcomed 10 new faculty. These new hires are strong teachers and researchers, and we have high expectations for each one! We also said farewell to several faculty who have chosen to take positions in industry or with other universities. Several faculty searches and a chair search for computer science are underway.

I am pleased to announce that Dr. Tarek Abdel-Salam, Professor of Engineering, has agreed to serve the College as Associate Dean for Research and Graduate Studies. Dr. Abdel-Salam has a very strong record of excellence in research and teaching. He replaces Dr. Evelyn Brown, who served extremely well as Associate Dean for the past three years. She has returned to the Department of Engineering and will continue to make outstanding contributions there. Another exciting addition to the College team is our new Major Gifts Officer, Scott Snead. Scott replaces Michael Ward who has accepted a great opportunity with ECU Athletics. Scott comes highly qualified in terms of both job-related experience and passion for ECU and the College.

NC Secretary of Commerce Sharon Decker visited the campus and the College in early September. Her visit allowed us to highlight the great things we have going on within TECS and to emphasize the economic impact that our graduates have on the eastern region of NC. I believe she left with a new view of ECU, and in particular, a better understanding of the tremendous role our College plays in

our region, particularly eastern NC.

I hope you enjoy reading about all the great things our students are doing. Our NSF Undergraduate Research Experience (REU) grant brought 10 extremely talented young women and men to campus to learn about research in computer science from our faculty who served as their mentors. It was the first REU to be hosted at ECU ever! Our Engineering program is now over 520 students strong and we expect to graduate about 100 new engineers this year. Technology Systems' students and faculty have contributed their expertise to help local industry partners save literally hundreds of thousands of dollars. Our incoming class in Construction Management's was twice as large as that of last year. Many great things are happening.

We need your help and support! We are building on a strong tradition and I know the College really does make a difference. You can help us recruit the best and brightest by telling prospective students and their families about our outstanding programs and encouraging them to visit our beautiful campus. Consider funding a scholarship for a deserving student. Of course, we are always interested in naming opportunities for our labs and classrooms. Thank you for all you do to help this College be successful!



David White, Dean  
College of Technology  
and Computer Science

David M. White, Dean

## STEM Girls Conference

The fourth annual STEM Girls conference was held Friday, October 4, 2013 on the campus of ECU. 95 eighth grade girls from twelve Pitt County middle schools attended the conference to learn more about STEM-Science, Technology, Engineering and Mathematics.

Provost, Dr. Marilyn Sheerer, shared opening remarks with the young women, encouraging them that "they too, can be STEM girls." The STEM Girls conference is about engaging these girls in fun, hands-on learning experiences help them realize what each of the STEM areas can offer and to envision themselves in STEM careers.

The girls rotated through four STEM activities where they learned about such things as material properties when crushing empty and full cans of soda in order to understand the amount of force required to crush the cans. They counted and sorted goldfish crackers to learn about the supply chain management system. They examined fresh flowers and explored their structure to see how they have

adapted to attract and reward different pollinators. Finally, they learned how to code and decode an encrypted message using mathematics.

Curren Blake, a junior mechanical engineering student, also displayed the use of a rapid prototype printer, also known as a 3-D printer. Casey Sokolovic, a junior at DH Conley High School, also spoke to the girls about her involvement and work with the "Love a Sea Turtle" Foundation.

The girls were selected by their teachers and counselors to attend. As one counselor noted, the girls attending have shown an interest in math or science, are self-motivated, or have the potential to be inspired by the event.

"It is our hope that this one day

conference can build excitement, enthusiasm, and confidence in the young ladies who attend," said Dr. Evelyn Brown, professor of engineering and member of the STEM Girls Advisory Board. "We hope they choose to pursue STEM degrees and careers, but more importantly, we want them to know that they have options and they have role models willing to help them."





# ECU grad students save companies money through class projects

Class projects completed by graduate students enrolled at East Carolina University will save two North Carolina-based companies more than \$1 million over the next decade.

Graduate students Brittany Ryan and Robert Johnson completed their projects while earning the Lean Six-Sigma Black Belt certification. The program is designed to equip students with the methodologies of Lean and Six-Sigma, which focus on streamlining industrial and business processes.

At ECU, completion of an industrial or business process project is a requirement of the course. The project must show certified savings or revenue increase.

“The idea of students applying things from class and using them in real-world settings is the goal,” Dr. David White, dean of the College of Technology and Computer Science said.

Dr. Janet Sanders, assistant professor in the Department of Technology Systems, is one of the two professors at ECU qualified to teach the course. Sanders said the students must be able to quantify the improvement and clearly show what is being measured.

Ryan worked with the Cumberland County Landfill manager to improve the landfill’s efficiency with mandatory testing. The landfill, in accordance with rules set by the Environmental Protection Agency, must test the chemical levels of its four sediment basins, once a month and after heavy rains. Due to the smaller contaminants that may remain in the water run-off, there is a potential environmental danger to wildlife present in stagnant waters and the nearby water source.

According to Ryan, the testing costs about \$600 each year per basin, including travel costs for testing done off-site in Wilmington.

Ryan found that growing a wetland within the sediment basin would remove excess chemicals in the drainage. With Typha plant (commonly known as cattails) and grass collected from a nearby wetland environment, she reduced the amount of chemical oxygen demand – the amount of organic compounds in the water to determine organic pollutants – phosphates and some nitrates from the basins.

“We walked to a wetland near the



**A class project developed by ECU graduate student Brittany Ryan will save the Cumberland County landfill more than \$100,000 annually. Ryan is pictured above in front of her wetlands project that reduces the landfill’s requirements for EPA testing. (Photo by Cliff Hollis)**

landfill and took some plants to plant them in the basins,” said Ryan.

As a trial run for the project, Ryan said they created a wetland environment within one sediment basin to test her research. Her goal is to have a small wetland planted within all four of the sediment basins by the end of this summer. With the installed wetlands acting as a second filter for the run-off, testing would not have to be performed after every heavy rain, just once a month in accordance with the EPA. The landfill should save approximately \$109,000 dollars annually – because of the decreased amounts of testing required – with the changes that Ryan implemented.

Johnson completed his project with Power Mulch, Inc. at the Charlotte Regional Intermodal Facility. His goal was to increase the company’s revenue by streamlining the process used during installation of erosion control socks. The black flexible material is filled with compost to keep soil and clay from running into the waterways near the construction site.

Johnson said he enjoyed seeing

techniques from class applied, knowing the project worked and saving the company money.

“I heard about Six-Sigma in the military. We used a lot of the same methodology that I learned at ECU,” said Johnson.

Johnson developed standard operating procedures for the people installing the erosion control socks. Better organization of project materials prevented excess time waste. The changes that Johnson made to the organization of the worksite and the workers increased the amount of erosion control socks installed from 1,530 feet to 2,340 feet per day.

“I was making sure the workers were efficient in the operating procedures and making sure the tools were ready and in the trucks at the site. If someone left their tools, they would have to waste time to go get them and come back,” explained Johnson.

The savings are measured on a daily basis because of the nature of the project. Soil erosion control will not be a constant expense for the company. Since the beginning of the project in January, the average daily savings amounts to \$2,427, according to Johnson.

Progress within the Lean Six-Sigma program is measured with different colored belts and only a certified Black Belt can teach the program. Students progress through the certification process similar to martial arts with yellow belt, green belt and black belt. The two ECU graduate students completed the certification program as black belts.

The graduate certification program was completed entirely online, with the exception of the final project presentation, given to the student’s sponsoring company. Though Sanders said the students are not required to inform her of the final presentation, she likes for them to tell her so she can try to be there.

“I feel I have helped give students skills to further contribute to society,” said Sanders.

This fall will begin the third year of the Lean Six-Sigma certificate program at ECU. Currently, 12 students are enrolled in the certificate program. ECU is one of three universities offering this program in the state.

- Jamitress Bowden,  
ECU News Services



## STUDENT HIGHLIGHTS

Four engineering students attended Research Experience for Undergraduates (REU) this summer: **Kristin Heckart** (University of Florida), **Amos Cao** (Iowa State University), **Jade Olaoye** (University of Kentucky) and **Sarah Brady** (University of Maryland). REU is a competitive summer research program for undergraduates typically studying Engineering, Math, or Science.

Former graduate student and MS-ST alumnae, **Whitney Knollenberg**, along with current graduate students, **Erin Harris**, **Keturah Mayberry**, and **Scott Gray**, helped design and develop, as well as support and manage the Travel Care Code. These students are part of the Center for Sustainable Tourism.

Two graduate students in the Lean Six Sigma certification program, **Brittany Ryan** and **Telford Locklear**, had their final project papers accepted for presentation at the IIE's Engineering Lean and Six Sigma Conference in Atlanta, Ga in September. Dr. Janet Sanders was their faculty representative at the conference.

**Michael McCarten** received the 2012-2013 ASME Outstanding Student Award.

**Elizabeth "Betsy" Mitchell** received a recognition certificate for her presentation in the Old Guard Oral Presentation Competition.

Five students participated in the Student Design competition as part of ASME. **David Chen**, **Edward Bryant**, **Michael McCarten**, **Betsy Mitchell**, and **Jason Ramey** developed a remote inspection device for the competition.

**LeAnna Becker**, **Courtney Carter**, and **Logan Hamm** participated in the Women In Construction Week in the spring of 2013. The women participated in a tour of the Caterpillar plant and the equipment rodeo event in Clayton, NC.

Fifteen students passed the ATMAE's Certified Technology Manager (CTM) Exam in late May, 2013. These students include: **Rajih Alshareif**, **Edwin Black**, **Justin Couch**, **Aidan Cruz**, **Walter Ernst**, **Zane Gray**, **Brandon Hackney**, **Jordan Korzelius-Klein**, **Alan Mabe**, **Christopher Morgan**, **Marion Phelps**, **Benjamin Richardson**, **Christopher Senior**, **Cory Shank**, and **Thomas Shreve**.

**Elwood (Wells) Jarvis** was awarded the Howard Bernstein Industrial Distribution Scholarship from the Material Handling Education Foundation, Inc. The scholarship is sponsored by St. Onge, Hamilton Caster and Allied Equipment in the amount of \$2,500 for the 2013-2014 academic year.

Two IDIS students, **Brian Bushelow** and **Austin Hester**, attended an event sponsored by the SAP University

Alliance titled "A Game Changer: In-Memory Computing Using the SAP HANA Platform." The session was hosted by the Poole College of Management at NCSU.

**Masato Nagakane** won first place for his undergraduate poster during Research and Creative Achievement Week.

Credit Suisse held its 2nd annual Kramden Mini Geek-A-Thon philanthropy event in September. Six students attended the event: **David Morton**, **Matthew Cantu**, **Victoria Tlsty**, **Mary Brauer**, **Jason Williams**, and **Dharmesh Patel**. The students work to repair older computers in order to provide disadvantaged students with refurbished home computers.

Two graduate students, **Ogaga Tebehaevy** and **Marc Bitner**, in the Occupational Safety program, received first and third place awards respectively at a student research poster and presentation competition. The competition was held in Myrtle Beach, SC at the 2013 American Society of Safety Engineers Region VI Professional Development Conference.

**Harold Griswold** and **Megan Sommer**, Construction Management majors, each received a national Associated General Contractors scholarship for the 2013-2014 academic year.

## FACULTY HIGHLIGHTS

**Dr. Hamid Fonooni**, Associate Professor in the Department of Technology Systems, recently received the Dr. William E. Tarrants Outstanding Safety Educator Award, sponsored by ASSE and PPG Industrial. The award is presented annually to recognize exemplary achievements in Safety, Health, and Environmental education.

**Dr. Evelyn Brown**, Associate Professor in the Department of Engineering, was awarded the Axiom Business book Award for her book Health Care Operation and Supply Chain Management. Brown co-authored the book with **Dr. John Kros**, Professor in the College of Business.

**Dr. Cynthia Deale**, an active contributor to the Center for Sustainable Tourism, recently received the 2013 Lamp of Knowledge Award for Outstanding Educator in the US from the American Hotel and Lodging Educational Institute.

**Alex Naar**, Director of Sustainable Tourism Outreach, was part of a tourism panel of experts in the Blowing Rock area in September. The panel discussed strategies for marketing the High Country as a tourist destination to a diverse group of travelers, including international visitors.

ITCS worked to install a high performance computing cluster (HPC) in TECS. HP's Linux Value Pack was selected because it provides single software architecture with HPC capabilities. **Joel Sweatte**, ITCS Director, **John Jones**, and **Keith Thomson** were involved in the installation.

**Lee Toderick** and **Joel Sweatte** have successfully enrolled the ICT program in the Linux Professional Institute (LPI) Academy. Membership will help to keep the curriculum current and also provide more certification opportunities for the students.

### Welcome to our New Faculty and Staff

**Dr. Mark Hillsm** - Computer Science  
**Dr. Ihab Ragai** - Engineering  
**Dr. Zhen Zhu** - Engineering  
**Mr. Steven Baker** - Technology Systems  
**Mr. Travis Powell** - Technology Systems  
**Dr. John Pickard** - moved to tenure-track position in Technology Systems  
**Dr. Mark Angolia** - moved to tenure-track position in Technology Systems  
**Dr. Pat Long** - Center for Sustainability  
**Dr. Tarek Abdel-Salam** - Recent Promotion to Associate Dean for Research and Graduate Studies  
**Scott Snead** - Major Gifts Officer  
**Ericka Faison** - Advising Center Administrative Support  
**Sham Redmond** - Technology Systems Graduate Administrative Support  
**Erin Acree** - Director of Marketing Outreach for Construction Management  
**Andy Wilson** - Lab Supervisor



## Department of Computer Science



Dr. Karl Abrahamson  
Interim Department Chair

The Department of Computer Science is back in full swing this semester. With close to 300 undergraduate and graduate students enrolled this fall, we are anticipating another successful semester of academics, internships, and faculty and student research projects.

We welcome new faculty member Dr. Mark Hills. Mark did graduate study at the University of Illinois at Urbana/Champaign and did a post-doc at CWI in the Netherlands on static analysis of computer programs.

An important development for the department is receipt of a Research Experience for Undergraduates grant for NSF, with Junhua Ding a principal investigator and Qin Ding, Nasseh Tabrizi and Sergiy Vilkomir as co-investigators. For three summers, starting this past summer, ten undergraduate students, including five from other institutions, participate in research projects related to software testing. This is the first REU grant to be hosted at ECU.

The Department of Computer Science offers four degrees.

- BA in Computer Science
- BS in Computer Science
- MS in Computer Science
- MS in Software Engineering

The MS in Software engineering is offered online, and the department is in the process of getting approval to offer the MS in Computer Science online.

Department research includes Junhua Ding's work on formal modeling of software, Sergiy Vilkomir's work on attaining testing criteria and testing applications for smart phones, Qin Ding's work in data mining and Mark Hills' continued work in static analysis.

More information is available at <http://tecs.ecu.edu/csci>. Please take time to learn more about us!

**ABOUT TECSCONNECTS—TECS CONNECTS** is published by the office of Marketing and Communications. You can read TECS CONNECTS online at [www.tecs.ecu.edu](http://www.tecs.ecu.edu). For more information about this publication, please contact Leslie Pagliari at [pagliaril@ecu.edu](mailto:pagliaril@ecu.edu) or Margaret Turner at [turnerm@ecu.edu](mailto:turnerm@ecu.edu).

## Department of Construction Management



Dr. Syed M. Ahmed  
Department Chair

Greetings from the Department of Construction Management at East Carolina University. We had a very productive and rewarding Spring semester with many accomplishments and achievements from our students and faculty. We kicked off the semester with our one-day faculty retreat on January 10 with a primary focus on long term goals and plans for the department. Six students from the CMGT department competed in the NAHB student competitions and did very well. Mr. Ron Sessoms was the Faculty Advisor. Ms. Brantlee Jobe was selected as the CMGT NAHB Intern for summer 2013. She is the incoming Student Chapter President of NAHB. Mr. Mark Hutker from AIANCES and Mr. Sam Rashkin from the Department of Energy (DOE) were invited as guest speakers on February 18 and March 18, respectively.

Dr. David Batie and I attended the ACCE mid-year meeting in Baton Rouge, LA from February 20-23. Caterpillar, Inc. was very kind to host our Spring Industry Advisory Board Meeting in their Clayton facility on March 22nd. Sigma Lambda Chi, the Construction Management Honor Society held its Spring 2013 Induction Ceremony on April 19th. Fourteen students and two faculty members were inducted. Many scholarships were awarded to deserving and qualified students and our ECCA Golf Tournament held at the Greenville Country Club in April was a huge success. Women-in-Construction week was celebrated during March 3-9, 2013 and was well represented by our female students, faculty, and advisors. CMGT recruiting efforts are in full swing and we are trying to reach out to all our potential constituents in high schools, community colleges, and undecided majors within ECU. The CMGT department actively participated in the ECU STEM day held on February 1, 2013 where over 300 high school students from 20 schools participated.

Ms. Sue Sayger joined the CMGT department as a *Fixed-Term Faculty* and Ms. Erin Acree joined the department as our *Director of Marketing Outreach* in Fall semester (August) 2013. Our undergraduate enrollment of incoming freshmen has more than doubled compared to Fall 2012. We have had a busy and productive 2012-13 academic year and we look forward to similar successes with our faculty and students engaging in various activities within the department, college, local community and beyond to fulfill our professional obligations. Specifically, the CMGT department is again preparing to send a student team to participate in the NAHB sponsored student competition in February 2014 and we are organizing a one-day seminar on **Design-Build** project delivery method on Friday, November 8 in Durham, NC in partnership with Lend Lease Construction. We plan to invite a renowned personality for our Construction Management Lecture Series in Spring 2014. Our faculty members are actively engaged in research and scholarship with publications in noteworthy conferences and journals. Drs. George Wang, Kamalesh Panthi, Donna Hollar and Jodi Farrington recently submitted pre-proposals to the NC Department of Transportation. The National Housing Endowment (NHE) funded grant led by Dr. Eric Connell is ending its first year of support in January 2014 with three more years of anticipated support. The CMGT department will continue to play an important and integral role for all its stakeholders as we shape and mold the future of our next generation of construction industry professionals.



## Department of Engineering



*Dr. Hayden Griffin  
Department Chair*

ECU Engineering continues to grow and graduate very solid engineers who are finding good jobs around the country. We started Fall 2013 with 521 students, up from 458 in Fall 2012. The number of transfer students and second degree students is continuing to increase as well. We have over 180 graduates at this point, and we expect to graduate another 60 or so by May 2014.

All of the concentrations are growing. The first graduate of the electrical engineering concentration will be in December 2013. There is a good demand for our graduates, and the electrical engineering graduates will be in high demand as well. The North Carolina Electric Membership Corporation has funded a scholarship targeted at electrical engineering students from North Carolina.

We have four new faculty this year, a mix of new positions and replacements for faculty who left ECU. We also have a professional advisor who has taken a significant advising load and is helping us formalize our curricular processes and procedures. We have three part-time faculty members who are teaching various courses this semester.

We are continuing to work on the spiral curriculum in the areas of design and project management. The new course sequence involves courses in every year of the curriculum, where concepts of engineering design, project management, and design realization are taught at an increasingly complex level in every year. The goal is to have students well-prepared for Capstone projects in their senior year. Our Capstone projects continue to be one of the hallmarks of the program. We have some very interesting projects with the Health Sciences Division, including the Brody School of Medicine, the College of Nursing, and the College of Allied Health. Energy and natural resource considerations, as well as human health, continue to be at the center of many of our Capstone projects.

We are continuing with good progress in the development and approval of the MS in Biomedical Engineering degree program.

I want to take this opportunity to thank the faculty and staff of ECU Engineering for their phenomenal work ethic and their dedication to this program. I also want to thank Dean David White, Provost Marilyn Sheerer, and Chancellor Steve Ballard for their strong support for this program. Without the support of all of these people, ECU Engineering would not be the high quality, growing program it is today.

To find out more about our Engineering program, please take the time to visit us at <http://www.engineering.ecu.edu>.

## Department of Technology Systems

The Department of Technology Systems (TSYS) continues to provide exceptional undergraduate and graduate programs in key technology areas that help drive the economic prosperity of our region, as well as the rest of the state of North Carolina.

The past academic year has been exceptional for us due to an intersection of 3 major events in the same year: 7-year unit academic program review (UAPR), 6 year accreditation visit by the Association of Technology Management and Applied Engineering (ATAME), and 10 year university reaffirmation of accreditation by the Southern Association of Colleges and Schools (SACS). We expect both the department and the university to fare out well throughout these processes.

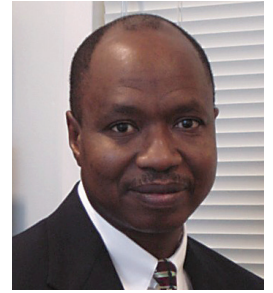
The department just launched a **NEW** Master of Science degree program in Network Technology (MSNT) this fall (2013)! The MSNT adds to our legacy master's degree programs in Technology Systems (MSTS) and Occupational Safety (MSOS), as well as our four graduate certificate programs to provide an array of graduate degree and certificate choices for our alumni and other baccalaureate degree holders. All of our graduate programs are available 100% online, making them ideal for working professionals.

Our undergraduate degree programs continue to thrive and make real impact on regional and statewide economic development. In addition, our faculty members continue to update and improve on our offerings, engage our business & industry partners in discussions to ensure that we develop and deliver relevant programs that meet regional needs, and improve the competitiveness of our graduates

We are particularly proud of our Bachelor of Science in Industrial Technology (BSIT) degree program that has produced more 600 graduates in the past 5 years! This degree completion program has afforded many North Carolina community college graduates a pathway to obtain their baccalaureate degrees without having to leave their jobs. This mostly online program has graduated students from 54 out of 58 North Carolina community colleges.

Our designation as one the National Centers of Excellence in Information Assurance Education (CAEIAE) by the National Security Agency (NSA) and Department of Defense (DoD) continues to provide excellent scholarship opportunities for both undergraduate and graduate students.

We are very thankful and proud of our students, faculty, industry advisory boards, and our university administration for their commitment to the department and ongoing support for our programs! Please contact us if you are interested in joining one or more of several program advisory boards in our department. You can obtain the latest information from about the department and connect with us by visiting our website at: <http://www.ecu.edu/cs-tecs/techsystems/index.cfm>.



*Dr. Tijjani Mohammed  
Interim Department Chair*



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## You can make a difference

As an Eastern North Carolina native and a graduate of East Carolina University, I feel honored and privileged to serve as the Major Gifts Officer for the College of Technology and Computer Science. In just four short month, I have witnessed a college that is destined for continued success and growth due to great leadership and vision, pride and teamwork from faculty and staff, students that are committed to becoming the best they can be, great relationships with our industry partners, and the generosity of our alumni and friends. I am very excited about being a part of this future growth. Whether you are an industry partner, alumni, friend, or all of these, I want to thank you all for your past and current support and ask that you please continue to support TECS with your time, resources, and financial gifts so that we

can continue to provide the margin of excellence that we strive for. You support is so critical to our continued success, especially due to the reduction in public funding, which seems to be a continuing trend.

My goal as your Major Gifts Officer, is to be a resource to help identify where your gifts will be most impactful and best fulfill your philanthropic desires. If you have not yet given to TECS, I would like to suggest that our TECS Society is a great place to start. The TECS Society is an annual giving society designed to support the general and critical needs of the College through unrestricted funds. We also continue to be in need of more endowed scholarships, and welcome your contributions to our current endowments as well. We have lab naming opportunities that allow for your name to

be displayed as a major donor, and at the same time, will allow for us to provide state of the art equipment in our labs. These are just a few of the many ways that you might consider giving to TECS.

Please give me a call to discuss these and other ways to support our college. Be sure to visit our website at <http://www.tecs.ecu.edu>. Please remember that your generosity, regardless of the amount, is always greatly appreciated and valued.

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 resources to make this newsletter publication possible.

On behalf of TECS, I want to thank you again and encourage you to give me a call with any questions you might have.

All the best,  
 Scott Snead  
 Major Gifts Officer  
[sneadsc@ecu.edu](mailto:sneadsc@ecu.edu)  
 252-328-9580



*Scott Snead*

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