

College of Engineering News

ACADEMIC YEAR 2017 - 2018

Associate Dean Receives STEM Innovation Award

Dr. Frances Williams, TSU College of Engineering Associate Dean and Professor of Electrical and Computer Engineering, was the recipient of a STEM Innovation Award at the 32nd Black Engineer of the Year Awards (BEYA) STEM Global Competitiveness Conference. The BEYA Conference was held in Washington, D.C., February 8-10, 2018. The STEM Innovators were recognized at "An Evening with BEYA Leading Voices Awards Ceremony on February 8, 2018, and included a total of 14 awardees from various HBCUS. The STEM Innovator Awardees were selected based on their research contributions to and innovations in STEM fields. Congratulations Dr. Williams!



Dr. Frances Williams, Associate Dean and Professor pictured with the host and hostess of the awards ceremony (pictured left). Dr. Frances Williams standing with fellow awardee Dr. Samuel Nahashon, Research Professor and Interim Department Chair in the TSU College of Agriculture (pictured above).



College of Engineering Receives Sweet Talk Recognition



Left to right: Dr. Leisa Crumpton-Young, Sonya Smith, Dr. S. Keith Hargrove, Cassandra Griggs, and Eloise Abernathy Alexis.

The College of Engineering was recognized for its 100 percent participation in the annual faculty and staff giving campaign. As a result Dean Hargrove was presented with a crowned tiger during the Sweet Talk Event held on November 30, 2017. (pictured left) This event provided TSU employees an opportunity to enjoy pastries and discuss the importance of supporting students beyond the classroom. *Excerpt and photo from TSU Newsroom (12/1/17).*

Senior Spotlight: Kevin Scott



Kevin Scott, senior electrical engineering student.

*“I know that I am ready to **THINK, WORK, SERVE, and LEAD.**”*
-Kevin Scott

When it comes to education, Kevin Scott has no other choice but to succeed.

“My parents didn’t play. Growing up at home my grades always came first,” says Scott, a Nashville native who has a passion for building, tinkering and fixing things.

Scott’s passion is no accident. He was raised around people who were “always building or fixing things.” His father owns a mechanic and towing business that he inherited from Kevin’s grandfather.

In May, Scott will graduate from TSU with a degree in electrical engineering and a concentration in computer engineering. He has potential job offers waiting for him with aerospace research and engineering giants like Lockheed Martin and AMRDEC or the Army Aviation and Missile Research Development and

Engineering Center, upon graduation.

Scott says the “strong and highly accredited” engineering program at TSU made his decision to stay local very easy. At TSU, he maintained the same high academic zeal he had always had. He is completing his engineering program in four years, which ordinarily lasts five years.

“I have been blessed with great professors and mentors at TSU who have been very nurturing and show personal interest in my success,” says Scott, who will be graduating with a near 3.5 grade point average.

A member of the Honors College, Scott is the Student Branch Chair of the Institute of Electrical/Electronic Engineers, member of the National Society of Black Engineers, and Eta Kappa Nu Zeta Kappa Chapter Electrical Engineering Honor Society. He is also a teaching assistant, and Lab Manager for STEM

Scouts by Boy Scout of America.

“This journey through Tennessee State University has been a life-changing experience. From the connections I have made, the opportunities that I have been granted, and from the education I have received, coming into this final stretch of my undergraduate degree, I know that I am ready to **THINK, WORK, SERVE, and LEAD,**” says Scott.

Over his college career, Scott also received recognitions and scholarship awards from the Music City Bowl Tradition of Service, the NFL Retired Players Inspiration, IBM Master The Mainframe Part 2 Completion, and the National Society of Collegiate Scholars. *Excerpt from TSU Newsroom (4/6/2018).*

TSU Alum Promoted to Director

Congratulations to Shenetra Moses. She was promoted to Director of Plant Operations at Baxter International in November 2017. Shenetra graduated with a B.S. in electrical engineering in 2004. She earned a M.S. in Lean Manufacturing Operations from Kettering University in 2009.



Students Compete in AMIE Design Challenge

TSU College of Engineering sponsored seven students to participate in an inaugural design competition hosted by AMIE or Advancing Minorities' Interests in Engineering. The Design Competition was held on February 9, 2018, in Washington, D.C. TSU competed along with 12 other HBCU engineering students. As pictured right in white shirts, the members of the team were T'Anna Williams (CS), Amiya Ingram (ME), Tarence Rice (EE), Dwight Pullen (AE), Robert Tuner (ME), Briana Kemp (EE), and Desiree Whitener (EE). Cullen Vaughn was assigned as the industry technical advisor (pictured far left).



AIT Alum is New Crew Scheduler



Bobby Johnson was appointed as a crew scheduler in Fall 2017 at Everts Air Cargo (pictured left). He graduated in 2010 with a B.S. in Aeronautical Industrial Technology with a concentration in aviation flight. He also earned a private pilot license in 2009. Bobby plans to become a professional cargo pilot. *Excerpt and photo from Everts Cargo Newsletter 11/2017.*

It's a Girl! Congratulations Elif Sen



Congratulations to Mrs. Elif Sen Sonmez Turk in the Computer Science Department. She and her husband Dr. Hasan Sonmez Turk are the new parents of baby girl Afet Helin who was born in January 2018.

TSU Hosts Boot Camp for Systems Engineering Certification

On February 24, 2018, students from the TSU student division of the International Council on Systems Engineers (INCOSE) completed a boot camp in preparation for systems engineer certification. The Huntsville Regional Chapter (HRC) of INCOSE sent Tom Chanel (HRC government representative) and Guy Osborne (HRC president) to conduct the boot camp at TSU. INCOSE is a not-for-profit membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. Dr. Charles McCurry, assistant professor of electrical and computer engineering and certified entry level Associate Systems Engineering Professional (ASEP), initiated the process to start the TSU student division.

The HRC sponsored TSU student division of INCOSE is the first at a Historically Black College and University and one of only fourteen in the United States.

“These boot camps to be conducted annually will prepare students to take the ASEP certification exam prior to or around their expected graduation,” according to McCurry who also serves on the HRC board as the academic representative. When reflecting on his vision for starting the TSU student division, Dr. McCurry said, “it gives them the opportunity to enter the workforce certified as a systems engineer by INCOSE the only systems engineering certification organization.”

TSU INCOSE student division provides students with systems engineering professional courses;

workshops; industry lead systems engineer (SE) related seminars; regular opportunities for students to discuss technologies/research; and network with SEs working in the area with such agencies as National Aeronautics and Space Administration (NASA), Aviation and Missile Research, Development, and Engineering Center (AMRDEC), and supporting contracting firms. HRC also provides two \$500 scholarships annually to the TSU student division. The first four scholarship recipients were Kyra Bryant, Ron Davis, Asmah Muallem, and Mohammad Rahman. *Excerpts from article written by Dr. Charles McCurry.*

“These boot camps to be conducted annually will prepare students to take the ASEP certification exam prior to or around their expected graduation.”
-Charles McCurry, Ph.D.

Pictured right: HRC representatives stand with master’s and doctoral students in the Computer Information Systems and Engineering (CISE) program who completed the INCOSE systems engineering boot camp. *Photo submitted by Dr. Charles McCurry.*



Graduate Student Awarded 2nd Place for Research



Omari Paul pictured above at right.

Omari Paul, a graduate student in the Computer and Information Systems Engineering program in the College of Engineering, presented his research entitled “The Coupling of Light with Piezoelectric Properties in Graphene Oxide-doped Polyvinylidene Fluoride” at the 127th Meeting of the Tennessee Academy of Science (TAS).

The meeting was held on November 17, 2017 at the University of Tennessee at Martin. Mr. Paul received the 2nd place award for his oral presentation in the Engineering and Engineering Technology technical session. His research is under the direction of Dr. Frances Williams. *Article and photo by Dr. Frances Williams.*

Legacy Society Inducts Engineering Alum

Dr. Charles Flack was inducted into the Tennessee State University Legacy Society during homecoming in October 2017. The Legacy recognizes persons who designate a gift for Tennessee State University in their wills and estates, deferred gifts or cash gifts of \$10,000 or more to an endowment fund. Dr. Flack earned a B.S. in electrical engi-

neering from TSU in 1984. Currently, he serves as a Service Delivery Executive and Infrastructure Consultant GTS Network Services for IBM Corporation. He also served as a past president of the Engineering Alumni Association.

Dr. Charles Flack is pictured right holding crystal Legacy Society vase. *Photo submitted by Dr. Charles Flack.*



Skanska Hosts SWE Students

Five members of the TSU chapter of the Society of Women Engineers (SWE) attended the Skanska Women’s Power Breakfast held October 18, 2017. After being inactive for two years, the following ladies saw a need for a supportive network for women students and reactivated the TSU SWE chapter in August 2017. SWE members pictured left to right are Demetria Snorton, Briana Kemp (chapter president), Whitney Whitfield, Shanae Brooks (BSAE, 2016 and Skanska project engineer), Ashley Killebrew, and Renas Barzanji.



Photo submitted by Briana Kemp.

Alum Spotlight: Roosevelt Luster III



Roosevelt Luster III

*"I give or created the scholarship to bridge the gap between students who want to be an engineer, but academically do not deserve the money...but have a ton of I am not going to quit, and I am not going to be broken."
-Roosevelt Luster III*

Several Tennessee State University College of Engineering students have been the recipients of the Luster Family Engineering Alumni Association Student Emergency Aid Fund. Are you curious of how and why this fund was started?

Electrical engineering alumnus Roosevelt Luster III started this TSU Foundation fund as a way to pay forward the blessing that he received as a student.

"I was labeled as a learning-disabled student starting in the 3rd grade and my grandmother helped me rise above this label. While at TSU Dr. Decatur Rogers wrote me a personal check because my grades did not qualify to receive financial support. So, I give or created the scholarship to bridge the gap between students who want to be an engineer, but academically do not deserve the money, but have a ton of *I am not going to quit, and I am not going to be broken.*"

Roosevelt, a native of Detroit, Michigan, started

Prime Maintenance LLC in 2017 after a twenty-year career in the Electric Power Industry split between Southern Company and Duke Energy. Prime Maintenance was created to service the needs of power plants and industrial facilities by providing project managers and technical professionals to lead capital improvement projects. Roosevelt has leveraged his corporate success with managing \$50 million projects to address similar needs in the power and tangent industries.

Always active in communities where he lives, Roosevelt provides tools for parents to help their children grow academically. His efforts have resulted in a network of parents using Khan Academy to support academically challenged children to pushing children who are gifted to new academic areas. Also, Roosevelt and his wife have a \$250 thousand endowment that is used to support and address educational gaps in the community. In 2004, the State

of Tennessee, awarded Roosevelt philanthropist of the year for his contributions to Tennessee State University.

Prior to TSU, Roosevelt attended The University of Michigan from 1989-1992. While at Michigan, he became a member of Alpha Phi Alpha Fraternity, Incorporated. Roosevelt transferred from Michigan to TSU in 1992. He earned a Bachelor of Science degree in Electrical Engineering from Tennessee State University in 1997, an MBA in Finance from University of Alabama at Birmingham in 2003, and became a certified Project Manager Professional with the Project Management Institute in 2012. Roosevelt lives in Raleigh, NC with his wife, son and daughter.

Excellence
is our Habit!



College of Engineering News Briefs



Students S. Aya Jones (left), Briana Kemp (middle), and research professor Dr. Erkan Kaplanoglu (right) attended the ASEE Southeastern Conference in Destin, Florida in March 2018. Both Aya and Briana presented research during the student poster competition. *Photo submitted by Briana Kemp.*

Aya (mechanical engineering junior) presented the poster *A Real Time Mobile Robot Control Using Bio Signals of the Human Forearm.*

Briana (electrical engineering) presented the poster *A SCADA System for an Experimental Renewable Energy Setup.*

TSU doctoral counseling student Tonya McKoy (pictured right) presented her research *Psychological Retention Factors of African American Students at an HBU* during the poster session of the National Symposium on Student Retention held in Destin, Florida on November 8, 2017. Tonya earned a bachelor of science in mechanical engineering from North Carolina A & T University and a Master of Education in human development counseling from Vanderbilt University. In addition working on her doctoral dissertation, Tonya currently practices as a licensed professional counselor in Tennessee. *Photo submitted by Tonya McKoy, LPC.*



Dean S. Keith Hargrove (pictured right) was presented with the Ivory Dome Award at the 14th Annual Information Technology Senior Management Forum (ITSMF) Technology Achievement Awards ceremony on March 9 in Dallas, Texas. The Ivory Dome Award is given to an individual focused on increasing the number of students in the STEM discipline. Founded in 1996, ITSMF is the only national organization dedicated exclusively to cultivating executive-level talent among black technology professionals. Congratulations Dr. Hargrove!





Named “Best STEM Program for 2017” by the HBCU Digest, the College of Engineering at Tennessee State University has provided a quality education in engineering and technology with a mission to increase the diversity of tomorrow’s technical workforce for more than half a century.

TSU-18-00891(B)-12b-13480 - Tennessee State University does not discriminate against students, employees, or applicants for admission or employment on the basis of race, color, religion, creed, national origin, sex, sexual orientation, gender identity/expression, disability, age, status as a protected veteran, genetic information, or any other legally protected class with respect to all employment, programs and activities sponsored by Tennessee State University. The following person has been designated to handle inquiries regarding non-discrimination policies: Stephanie Roth, Office of Equity and Inclusion, sroth@tnstate.edu, 3500 John Merritt Blvd., General Services Building, Second Floor, Nashville, TN 37209, 615-963-7435. The Tennessee State University policy on nondiscrimination can be found at www.tnstate.edu/nondiscrimination.

College of Engineering
Torrence Hall
3500 John A. Merritt Boulevard
Nashville, TN 37209
www.tnstate.edu
Phone: (615) 963-5401
Fax: (615) 963-5397
<http://www.tnstate.edu/engineering/>

Students Celebrate TSU Homecoming 2017 and the Engineering Profession with Student Organizations Parade Float



Students standing left to right: Marco Bowen, Nzinga Ajamu, SiVon Jiles, Christopher Buford II (behind tiger). Students sitting left to right: Tynesha Bonds, William Woodfork, and Jeremiah Seals.