ENGINEERING DIVERSITY

THE FOCUS

Engineering Summer Programs
From Pre-College to College

FALL 2017
From Fred Brown’s time as director of the Office of Engineering Diversity Programs (EDP), the office has seen a lot of change. In 1999, it was renamed and has come to serve not only African American, Hispanic, Native American, Pacific Islander, and Alaskan Native students, but also female students.

Throughout the past 44 years, the office has supported more than 1,000 students. The Fred Brown Jr. Minority Academic Endowment, James Pippin Pre-College Program Endowment, Engineering Diversity Excellence Endowment, and Robert B. Lewis III Engineering Diversity Excellence Endowment provide resources for underrepresented students within the Tickle College of Engineering. Additionally, the office continues to expand to support more students from underrepresented populations who are pursuing engineering. The office is considered a safe place where students can learn, grow, receive encouragement, and even let out their frustrations from time to time.

EDP has also made massive strides in maintaining strong corporate relationships, including a partnership with the Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP), which provides students with many opportunities including monthly enrichment to students on subjects involving professionalism and student development. The TLSAMP Graduate Development program also offers post-undergraduate workshops and GRE preparation for students planning to attend graduate school.

This year, the Engineering VOLunteers for Ninth Graders summer program was selected for the National Association of Multicultural Engineering Programs Advocates Outreach Program award. This award is given to honor programs that have actively increased the participation of students from historically underrepresented minority populations in engineering.

“EDP continues to develop partnerships across Tennessee to support community-based programs with the goal of supporting student learning and engineering exploration,” said Travis Griffin, director of the office.

“We’ve come a long way, but the journey continues,” says Griffin. “We are committed to supporting underrepresented students in any capacity. In the coming year, a renewed focus will be placed on Women in Engineering programs to increase outreach and retention efforts to increase the number of female students in our college.”

Griffin’s goal is to provide programming to address recruitment, transition, and retention of female engineering students while continuing the strong support for multicultural engineering students and their communities. Efforts will include class clustering, academic workshops, and community building in order to improve academic performance and retention.

In 1973, Fred Brown was named the first program director of the Minority Engineering Scholarship program (MESP), which has evolved into the Office of Engineering Diversity Programs. Brown is credited with laying the foundation for the Tickle College of Engineering’s diversity programs. Former students say his hands-on approach helped ensure their success: walking them to class and wanting them to not only come to UT but also to graduate. His legacy continues through the Fred Brown Jr. Minority Academic Endowment, which annually provides financial aid to select minority engineering students.

Please consider joining our journey to raise $1 million for the Office of Engineering Diversity Programs by our 45th anniversary in 2018. You can participate in the ongoing work that continues the legacies of Fred Brown, James Pippin, and others—providing access and opportunity—by going to engr.utk.edu/give/diversity-challenge.

Gabrielle Richards Joins the office

Engineering Diversity Programs welcomed Gabrielle Richards as their administrative specialist in November of 2016. Richards worked in patents, trademarks, and licensing worldwide for Motorola Solutions Inc. for over 18 years before coming to UT. She enjoys gardening, spending time with family, and traveling.
Women In Engineering News

Diamond Award Winner: Jenny Patel

Jenny Patel’s advocacy for women in engineering, as well as her pursuit of advancing the Society of Women Engineers (SWE) at the University of Tennessee, have made her stand out among her peers. Due to her vision and leadership Patel has been awarded several honors. She received the Most Outstanding Freshman of the Year award and the Leadership award from the UT Section of SWE, and she was also recognized for outstanding leadership for the WomEngineer’s Day Conference in its inaugural year.

Membership Retention Award

The Society of Women Engineers (SWE) at UT strives to provide opportunities for our members to aspire to their dreams, advance their profession as a positive force in improving the quality of life, and achieve their full potential in careers as engineers and leaders. Activities and programs foster mentoring and the development of professional and personal networks—emphasized by the SWE Core Values. At the beginning of the year the executive board met to determine how to improve membership retention—they realized more professional opportunities were needed.

“An Evening with Industry” was an event planned to do just that. This fall event provided an opportunity to network with professionals from over 10 companies. In the spring, SWE hosted a networking event with an interactive workshop focusing on reviewing resumes, mock interviews, and critiquing elevator speeches. Meetings also emphasized professional growth by welcoming a number of industry professionals to share their expertise and advice. Professional growth is also achieved through the SWEties mentoring program, which is aimed at recruiting new members and retaining current members through mentoring and networking.

While much of SWE’s focus is to provide professional opportunities to members, events like SWEek and cookouts to intramural sports and costume competitions. Within SWE, Patel has served as an officer for three of her four years, and her uplifting personality and passion for engineering has allowed her to be a successful leader. Patel currently serves as president and has worked to increase meeting attendance by over 70 percent by offering networking opportunities with company representatives throughout the region. She not only promotes engineering through her involvement with SWE, but also serves on the WomEngineer’s Leadership Council to coordinate an annual WomEngineering Welcome Dinner for incoming freshmen and to motivate women in STEM fields throughout the college. Additionally, Patel has been a coordinator for the biennial WomEngineer’s Day Conference since its inception in 2015.

Most recently, her commitment and enthusiasm for engineering allowed her to gain an internship at Siemens Healthineers, where she served as a mechanical engineering intern and worked with PET and CT scanners.

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The Office of Engineering Diversity Programs initiated the first-ever summer pre-college program in 1997 when it introduced Middle School Introduction to Engineering (MITE). James Pippin, former program director of the office, said the program’s goal was to introduce middle school students to engineering and recruit high school students to the college.

Today, the office hosts four different programs which include Engineering VOLunteers for Ninth Graders (eVOL9), Engineering VOLunteers for Tenth Graders (eVOL10), High School Introduction to Engineering Systems for eleventh Graders (HITES11), and High School Introduction to Engineering Systems for twelfth Graders (HITES12).

The goal is to spark an interest in engineering through hands-on activities and allow students to explore career opportunities by participating in classes, dining in student dining halls, and living in student residence halls. The programs also offer students the ability to familiarize themselves with UT and the college.

“While I was at HITES, we toured every engineering facility and many faculty members spoke to us about their respective departments,” said Irfan Ibrahim, a nuclear engineering major from Sevierville, Tennessee. “This was great in that we could all see what each engineering field was about and also see what types of careers people have in them.”

The pre-college programs also prepared students like Annette Robbins, a nuclear engineering major from Chattanooga, for the rigors of college once they arrive.

“To date, the programs have provided a summer engineering experience to over 1,000 middle and high school students. Amongst them are plenty of success stories of students who continued forward through the programs into the college, like Jamie Anderson-Porter, who went from pre-college to a PhD in nuclear engineering. She is now a senior radiation engineer in the Space Exploration Sector at Johns Hopkins Applied Physics Laboratory. “Jamie was the first female African-American student to graduate from the University of Tennessee with a PhD in nuclear engineering,” Pippin said.

This year marks a change for the eVOL9 program. It will move to a three-day conference style setting. “The goal is to expand this opportunity to 100 students,” said Travis Griffin, director of the college’s Office of Diversity Programs. “In addition, we will provide educational workshops for their parent or guardian and teachers. The important concerns associated with the program are improving the student experience to discover engineering, ACT preparation, and educating parents and teachers about the expectations of an engineering student.”

The new setting for the conference will also serve as a pilot program for potential future expansion. “When the eVOL9 conference proves to be a successful model, we plan to make it mobile to provide the engineering experience in other major Tennessee cities such as Chattanooga, Nashville, and Memphis,” said Griffin.

The college will expand the eVOL10 and HITES12 summer experiences. These experiences will be led by assistant director Jalonda Thompson starting summer 2018.

“HITES12 prepared me for the incoming workload from Engineering Fundamentals and how to standardize the homework in an engineering format, they helped me understand the engineer’s way of thinking—critical thinking.”

—Annette Robbins
UT hosted the 7th Annual Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP) Awards Banquet on April 3, 2017, at the Hollingsworth Auditorium on the Ag Campus. This year’s guest speaker was Tommy Stevenson from Mississippi State University’s Office of the Provost and founder of the Stevenson & Associates Consulting Group LLC.

John Hoffschneider, diversity coordinator for the TLSAMP Junior Development program, served as the event host for a very successful event.

Students and faculty were recognized for their involvement with TLSAMP, student organizations, undergraduate research, and academic achievement. Jasmine Morrissette, then-president of Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS), presented Dmarkus McKenzie Simpson the Freshman of the Year award and Deja Floyd the Isaac E. Bennett Member of the Year award for the UT chapter of MANNRS. Morrissette was also given an award for Outstanding Leadership and Mentoring.

Lauren Cuevas, then-president of the Society of Hispanic Professional Engineers UT chapter, honored Daniel L. Caballero, Justin Nguyen, and Miles Gepner for Outstanding Leadership, Edgardo Jimenez for the Unsung Hero Award, and Christine J. Garcia as New Member of the Year award. Cuevas was also presented an award for Outstanding Leadership and Mentoring.

Imani Jackson, then-president of the National Society of Black Engineers UT chapter, presented Frenando Blevins the Freshman of the Year award and Olufunke “Tina” Anjonrin-Ohu the Golden Torch award for best overall academic, community service, and professional development. Jackson was also presented an award for Outstanding Leadership and Mentoring.

This year’s TLSAMP Research Scholars awards were awarded to Evalynn Borrego, Daniel Encisco, Breanna Ellis, Kendra Jackson, Chima McGruder, and Samantha Medina. Research scholars are undergraduate students that presented at a STEM conference and were awarded a TLSAMP stipend.

This year, the TLSAMP Awards Banquet recognized Gabriel Goenaga, senior research associate from the Department of Chemical and Biomolecular Engineering and Chem-E-Car team faculty advisor as the inaugural TLSAMP Champion of the year. This award recognizes a faculty/staff member who serves as a champion for TLSAMP students as they pursue their education at the graduate/PhD level.

The goal of TLSAMP is to increase the enrollment of underrepresented students (African American, Hispanic/Latino, Native American, Alaskan Native, and Hawaiian/Pacific Islanders) in the fields of science, technology, engineering, and mathematics to prepare them for graduate school.
**Movers and Shakers**

**Completed an Internship Experience**

Kunal Ashok, mechanical engineering junior, Y-12 (Oak Ridge, Tennessee)

Abdullah Bahour, biomedical engineering senior, AT&T (Meridian, Mississippi)

Cassandra Finney, chemical engineering senior, ExxonMobil Chemical Company (Houston, Texas)

Miles Gepner, computer science senior, MIT Lincoln Laboratory (Lexington, Massachusetts)

Lina Gouto, chemical engineering junior, PepsiCo (Pulaski, Tennessee)

Cullen Johnson, industrial engineering senior, Under Armour (Nashville, Tennessee)

Marley Machara, wildlife & fisheries sophomore, Tennessee Wildlife Resource Agency (Nashville, Tennessee)

Samantha Medina, material science & engineering senior, Argonne National Laboratory ( Lemont, Illinois)

Elvis Offor, computer science senior, Brookhaven National Laboratory (Upton, New York)

Jaime Ragos, food science & technology senior, research internship, Barbra Ford Center for Peace (Guatemala)

Bianca Swift, statistics senior, Lowes (Charlotte, North Carolina)

Corey Williams, mechanical engineering junior, Denso Manufacturing (Maryville, Tennessee)

Simone Yates, animal science sophomore, SweetBio (Memphis, Tennessee)

Jasmine Worlds, mechanical engineering senior, PepsiCo (Piano, Texas)

Kaylin Wright, nuclear engineering sophomore, Exelon Generation (Dresden Station, Illinois)

**Completed a Cooperative Education Experience**

Carlos Calloway, mechanical engineering senior, UT Department of Mechanical, Aerospace, and Biomedical Engineering

Asia Conley, nuclear engineering senior, UT Department of Nuclear Engineering

Breanna Ellis, material science and engineering junior, Denso Manufacturing (Maryville, Tennessee)

Daniel Enciso, computer engineering junior, OSISoft LLC (Johnson City, Tennessee)

Laura Ferrer, civil engineering junior, Southern Company (Birmingham, Alabama)

Lina Gouto, chemical engineering junior, Johnson & Johnson (Skillman, New Jersey 2016) and Dow Chemical (Pitsburg, California, 2017)

Evan Wilmer, chemical engineering senior, Kimberly Clark (Loudon, Tennessee)

**Completed an Undergraduate Research Experience**

Abdullah Bahour, biomedical engineering senior, UT Department of Mechanical Engineering

Asia Conley, nuclear engineering senior, UT Department of Nuclear Engineering

Laura Ferrer, civil engineering junior, UT Department of Civil Engineering (2016) and Texas A&M, Kingsville, Texas (2017)

Tavian Holbrook, biological science sophomore, UT Department of Microbiology

Danielle Holdren, animal science sophomore, UT Department of Microbiology

Kendra Jackson, civil engineering sophomore, UT Department of Civil and Environmental Engineering

Alexandra Jean, chemical engineering senior, Department of Chemical and Biomolecular Engineering

Hunter Mann, computer engineering sophomore, UT Department of Electrical Engineering & Computer Science

**Completed a Study Abroad Service Trip**

Shavoshia Leslie, electrical engineering sophomore, service project, Guatemala.

**Studied Abroad**

Syndee Ruff, chemical engineering sophomore, Milan, Italy

**Accepted a Position**

Tina Anjonnin-Ohu, biomedical engineering senior, DeRoyal (Powell, Tennessee)

Daniel Caballero, computer engineering senior, Northrop Grumman (Melbourne, Florida)

Carlos Calloway, mechanical engineering senior, PepsiCo (Fayetteville, Tennessee)

Simone Yates, animal science sophomore, UT Department of Entomology and Plant Pathology

Lam Vo, chemical engineering sophomore, UT Department of Biochemistry Cellular and Molecular Biology

Kenneth Washington, mechanical engineering senior, UT Department of Mechanical, Aerospace, and Biomedical Engineering

Arianna Worthy, aerospace engineering sophomore, UT Department of Mechanical, Aerospace, and Biomedical Engineering

Henna Zaver, biological science sophomore, UT Department of Ecology and Evolutionary Biology

**Alumni Spotlight: Amber Nixon**

Amber Nixon participated in the Bechtel HITES summer program as a high school senior, and was one of the summer project team winners. After her experience here on campus she became a Volunteer, and spent her college years serving the National Society of Black Engineers on both the chapter and regional level.

Nixon was a strong leader in the Engineering Diversity community, keeping active with community service, Mini-Seek programs, and much more. For her work and dedication, she was the recipient of the Golden Torch Award in her senior year. This award is given to a student leader who embodies the mission of the organization: to increase the number of culturally responsible black engineers who excel academically, succeed professionally, and positively impact the community.

Nixon graduated from UT and now works as a supply-chain resource at the Frito Lay plant in Perry, Georgia, the company’s largest in North America. She manages a team of 120 in the Geographic Enterprise Systems (GES) department, where they make and deliver customized orders directly to stores.
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