



NATIONAL SOCIETY OF BLACK ENGINEERS

THE FUTURE OF

# ENGINEERING



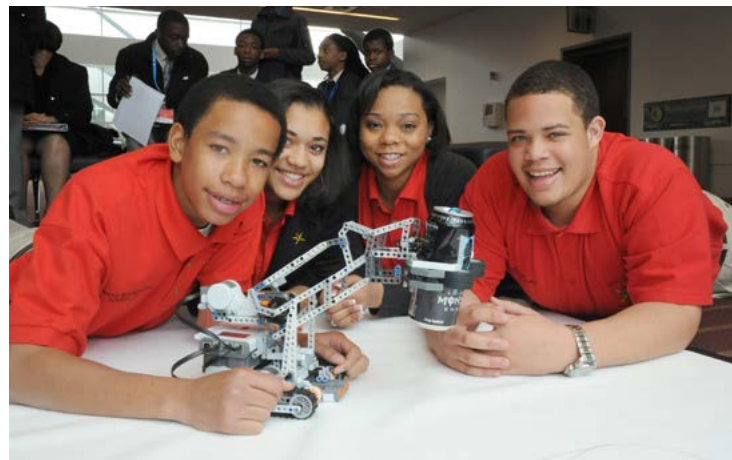
Economic growth requires technological innovation. Technological innovation requires the advancement of engineering. And today, more than ever, advancement of the engineering profession depends on the work of the National Society of Black Engineers (NSBE). NSBE is committed to widening the pool of engineering talent from Black communities around the world. In the United States, where African Americans and other people of color will soon outnumber other groups in the workforce, NSBE is expanding the pipeline to engineering careers from third grade through graduate school. The tools used to accomplish this expansion are NSBE's programs and activities, which are designed to nurture Black students' and professionals' interest and aptitude in engineering, expand their professional horizons and lead the nation to greater economic prosperity fueled by innovation. All engineers and all Americans benefit from NSBE's dedication to its mission: *to increase the number of culturally responsible Black engineers who excel academically, succeed professionally and positively impact the community.*

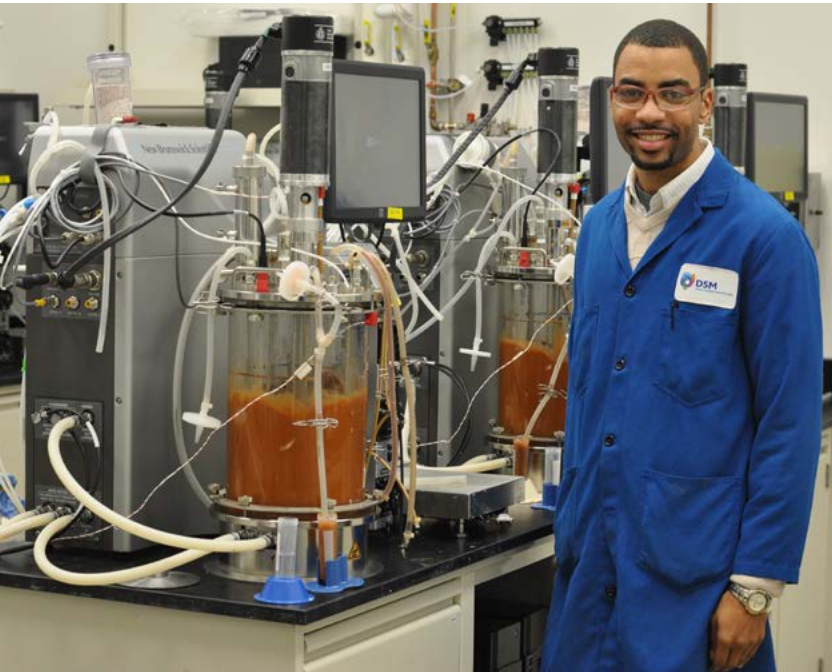


Through its 350 pre-collegiate, collegiate and professional chapters, NSBE trains its 31,000 members around the globe in the essential skills for their professional lives. Among those skills are leadership, which NSBE members learn by taking on ever-increasing responsibility in the Society's governance. All major decisions within NSBE are deliberated and made by college students, who are elected or appointed by their peers and supported by a professional World Headquarters staff.

### **NSBE's 10-YEAR STRATEGIC PLAN**

NSBE's new 10-year Strategic Plan calls for refocusing on the Society's core mission of increasing the number of Black engineers, by working toward an ambitious goal: graduating 10,000 African American bachelor's degree candidates per year in engineering, by 2025, up from the current number of 3,620. The plan, which was adopted by NSBE's National Executive Board in March 2015, calls for a number of changes in NSBE's operations to achieve this goal. The document was drafted by a Strategic Planning Task Force composed of members of NSBE national, advisory and professional boards and World Headquarters staff. NSBE hired the strategic consulting firm Upper West Strategies to guide the process.





### **SERVING ITS MEMBERS BEFORE AND AFTER COLLEGE**

Pre-collegiate students, as well as professionals in engineering — in addition to the collegiate members who provide the organization’s national and international leadership — are served by NSBE initiatives that address their unique needs. NSBE’s Pre-College Initiative (PCI) program enhances middle school and high school students’ academic, technical and leadership skills to maximize their success in life. PCI is designed to stimulate interest in science, technology, engineering and mathematics (STEM) and to encourage students in grades 7–12 to attend college and pursue engineering degrees and professions.

For those who have completed their undergraduate and graduate education, joining NSBE Professionals is the next step in membership. The NSBE Professionals organization is dedicated to positively impacting lives by leveraging a global community that empowers members to grow technically, access influential leadership, advance careers and inspire the next generation of Black technical professionals. This group serves working engineers through a wide range of programs and events, such as technical- and leadership-focused webinars, executive mentoring and the annual Professional Development Conference. Members who have expertise in specific areas, such as energy, the environment or space, have the opportunity to join one of nine Special Interest Groups (SIGs).

### **NSBE PROGRAMS: PREPARING STUDENTS TO BECOME ENGINEERS**

In accordance with its philosophy of “learning by doing,” NSBE offers its members a portfolio of programs through which they can develop their knowledge and skills as they serve their profession, their community and their country. A sample of current programs and activities is highlighted below:





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- **SUMMER ENGINEERING EXPERIENCE FOR KIDS (SEEK)**

SEEK is a fun, engaging, educational experience, led by NSBE engineering students and technical professionals dedicated to raising awareness of engineering, enhancing preparation for technical careers and encouraging service to the community. The program uses a hands-on curriculum in which campers work in teams, using their new knowledge to solve problems and create products while discovering the underlying math and science principles involved in these processes. A three-week, commuter-based program, SEEK is open to students in 3rd through 5th and 6th through 8th grades in select cities.

- **NATIONAL LEADERSHIP INSTITUTE**

NSBE's National Leadership Institute (NLI) is a year-round initiative that develops the leadership skills of all participants, stimulates interest in NSBE leadership, identifies and supports future NSBE leaders and prepares prospective candidates for elected positions in the Society. NLI encompasses the National Leadership Conference (NLC), six Regional Leadership Conferences and a Fellows Program. The NLC is NSBE's premier training program for its national and regional officers. At the NLC, and at Regional Leadership Conferences, NSBE leaders share ideas and receive training in such areas as budgeting, expense management, public relations and fundraising. They also learn skills such as effective communication, teamwork,



and conflict resolution. Leadership Conferences are an intensive “boot-camp” style training program to teach incoming national and regional board members how to manage a \$10-million organization.

- **NSBE COLLEGIATE PROGRAMS**

The Society offers a variety of NSBE- and corporate-sponsored scholarship opportunities — ranging in value from \$500 to \$10,500 — to our pre-collegiate, undergraduate and graduate student members. The signature NSBE Retention Program, which helps increase the success rate of engineering students through skill development workshops, mentoring and study halls, is aimed at ensuring that the students are prepared and financially supported to succeed in college. In addition, Bridge Scholarships enable incoming collegiate members to take advantage of summer bridge programs, which help students make the transition from high school to college.



- **NSBE HACKATHON**

The Hackathon enables students to learn leading-edge design concepts by working to solve problems through innovative technology. If adopted, their solutions may become groundbreaking inventions that influence engineering-intensive industries. The Hackathon’s framework gives the event’s participants the opportunity to bring new



ideas to life by working alongside peers and professionals to build operational prototypes. It also showcases the technical and design skills of NSBE members and provides employers the opportunity to observe their internship and permanent job candidates in action.

- **NSBE MATHCOUNTS**

The MATHCOUNTS Competition Series is a fun and challenging math program designed to help middle school students increase their academic and professional opportunities by building math skills, promoting logical thinking and sharpening analytical abilities. A circuit of exams is given to students at NSBE's Fall Regional Conferences. The first-place winners from each region compete at NSBE's Annual Convention. More than a competition, MATHCOUNTS involves students and teachers in yearlong coaching sessions and helps students at all levels improve their critical-thinking and problem-solving skills.

- **TEN80 STUDENT RACING CHALLENGE: STEM INITIATIVE**

Ten80 is a league in which middle school and high school students, supported by a community of mentors and educators, collaborate and compete in ways that mirror the work done by business and marketing executives, engineers, technicians, green transportation designers and professional motorsports teams. Ten80 teams compete using kits to create their own electric radio-controlled cars, and they engage in work that parallels the arduous preparation of NASCAR teams. The student teams showcase their work and compete locally and nationally, in categories including project management, race car engineering, aerodynamic design, alternative energy, creative engineering and graphic design.



# NSBE 2016 CONVENTION BOSTON



## ANNUAL CONVENTION

The largest gathering of NSBE's membership and partners, the Annual Convention, attracts more than 9,000 attendees each year. Staple convention events include a two-day Career Fair, College Fair and Graduate School Fair; Professional Development Workshops; General Sessions; Panel Discussions; the Technical Professionals Conference and the annual NSBE Golden Torch Awards Ceremony. The Annual Convention mobile app and Twitter feed help attendees keep track of the event's hundreds of educational and networking opportunities.

## NSBE CAREER CENTER

With more than 20,000 registered STEM job seekers who are members of minority groups, the NSBE Career Center is a one-stop shop for African American STEM recruitment, employment and internship opportunities. The Career Center's Career Fair Module enables employers and job seekers to register for career fair events, view job/resume postings of those who are attending, and schedule interviews through a job board. Job seekers are able to sign up for job alerts, which notify them when an opportunity they are interested in is posted





to the site, and employers can upgrade their job postings to have them included in a biweekly email that is sent to all job seekers. In addition to presenting opportunities placed with the Career Center, the site has spider wrapping capability that also captures openings pulled from employers' online job listings.

### SUPPORTERS AND PARTNERS

Partnerships with corporate and government leaders are a source of support for NSBE programs and activities and a wellspring of employment and internship opportunities for NSBE members. But our partners also benefit the Society in other ways, serving as conduits to cutting-edge technology and best practices in the workplace, as sources of engineering expertise, as inspiration for NSBE's student members and as facilitators of exciting project opportunities. A complete listing of partners would run for pages. But a small sample of these companies and agencies illustrates the level of commitment to NSBE of those who lead the field: Bechtel Corporation, the country's largest engineering and construction company; Chevron Corporation, one of the world's largest energy companies; Google, Inc., provider of the world's largest search engine; United Technologies Corporation, one of the world's leading developers and manufacturers of high technology for both civilian and military uses; and the United States Coast Guard Academy, which has partnered with NSBE to increase the number of Black students who enter the Academy and has hosted the NSBE National Leadership Conference.



**United Technologies**





### **NSBE: SERVING THE PROFESSION, SERVING THE COUNTRY**

The role and mission of NSBE have never been more vital. The universal importance of technology calls for NSBE's unique capacity to help prepare Black college students for careers in engineering. It also demands the Society's ability to support pre-collegiate students' budding interest in the exciting potential of working in STEM fields. The times call for a driving force that can put young people on track to become engineers, maximize the impact of their college preparation and harness their capabilities as professionals working for the good of the profession, the country and the world. The times call, in other words, for NSBE, the National Society of Black Engineers.



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For more information about how you can help NSBE's vital work, email [info@nsbe.org](mailto:info@nsbe.org).

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