

# 2022 Women of Color Summit

Wednesday, November 16

#### About the Women of Color Summit

The WEPAN Women of Color Summit (WOCS) provides a platform for women of color in the STEM fields and their allies to network, engage in authentic discussions, and share best practices. The 2022 WEPAN WOCS will include workshops, panels, and presentations on women of color in entrepreneurship, an emerging collaborative for women of color in engineering, and institutional transformation.

#### **About WEPAN**

WEPAN was founded as a non-profit educational organization in 1990. It is the nation's first network dedicated to advancing cultures of inclusion and diversity in engineering higher education and workplaces. WEPAN connects people, research and practice. It offers powerful initiatives, projects and professional development that equips advocates with the tools to create sustainable, systems-level changes that allow ALL in engineering to thrive.

### **Sponsorsship**

This event is sponsored by the NSF Directorate for Technology, Innovation, and Partnerships - Office of Translational Impact.



# Keynote Speaker Saundra Johnson Austin, Ed.D.



Saundra Johnson Austin, Ed.D. has dedicated her career to promoting diversity, equity, inclusion, and belonging in secondary and post-secondary education and careers in science, technology, engineering, and mathematics (STEM). Her research is grounded in the effective implementation of STEM curricula in urban middle schools. She has published and presented on STEM education and organizational change and

leadership. Dr. Johnson Austin earned a BS in Civil Engineering from The Pennsylvania State University, an MBA from the University of Notre Dame, and Ed.D. in Organizational Change and Leadership from the University of Southern California.

She has career experience in the education, industry, non-project, and policy sectors. She currently works at the University of South Florida (USF) as the project coordinator for the National Science Foundation sponsored Florida Alliance for Graduate Education and the Professoriate (FL-AGEP): Improving Minority Women Success in STEM Faculty Careers, a \$2.4M award to Florida A&M University, Bethune-Cookman University, Florida International, Florida Memorial University, University of South Florida, and Virginia Tech. Also, Dr. Johnson Austin is the project coordinator and Co-Principal Investigator for Project Racism In School Exclusionary Suspensions (RISES), a \$30k grant awarded to explore the suspensions of African American middle and high school students in Hillsborough and Pinellas County Florida. In 2007 she founded Charis Consulting Group, LLC.

Dr. Johnson Austin has been recognized by numerous organizations for her work in promoting equity and access to STEM education. Her most notable award is Outstanding Engineering Alumnus in Civil and Environmental Engineering from the Pennsylvania State University in 2015. She is a member of various STEM organizations including; the United States White House endorsed initiative, Algebra by 7th Grade, and advisory committee member for the Smithsonian Science Education Center's 'Zero Barriers in STEM Education.' Dr. Johnson Austin is currently the President of the American Association of University Women Tampa, Inc., consultant to the board for the Caribbean Community Association of Tampa, and Treasurer for the Northeast STEM Starter Academy of Mount Vernon, NY.

#### Schedule

11:00pm-11:50pm | Opening Keynote

11:50pm-12:00pm | Break

12:00pm-1:00pm | "The Women of Color in Engineering Collaborative (WCEC)"

1:00pm-1:10pm: Break

1:10pm-2:10pm | "NSF Directorate for Technology, Innovation, and Partnerships"

"High-5 Lightning Talk - Sharing the Lives of Women in Engineering Through Wikipedia Edit-a-Thons"

2:10pm-2:40pm: Break

2:40pm-4:00pm | "Featured Panel: AAC&U Convergence Incubator Programs Fellows"

4:00-4:10pm: Break

4:10-5:10pm | "Advancing DEI for URM Women in STEM Graduate Programs"

5:10-5:20pm: Break

5:20pm-6:00pm | "Things Will Never Be the Same: The Intentionality of Change"



# "The Women of Color in Engineering Collaborative (WCEC)"

In December 2020, the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE), and the Society of Women Engineers (SWE) received a National Science Foundation planning grant (NSF Award #2040634) to support th1e creation of the Women of Color in Engineering Collaborative (WCEC). The purpose of the WCEC is to bring together STEM organizations to address systemic barriers that prohibit equitable work environments for women of color in engineering.

Earlier this year, the WCEC core project team grew to include the American Indian Science and Engineering Society (AISES) and the Women in Engineering ProActive Network (WEPAN). We see the WCEC as a vehicle through which professional societies can work with employers to connect people, cross divides, and drive systemic change toward the equity we seek in the engineering and technology professions. By working together, we can leverage our resources to promote change, while collectively addressing the barriers that lead to the attrition of women of color from the engineering workforce.

Through virtual convenings and subgroup discussions conducted over the course of one year, the WCEC members agreed on a definition of their target population, established a shared mission and vision, and identified the systemic barriers that they felt the WCEC was best positioned to address over the next few years. The WCEC is now focused on implementing its strategic plan and growing the collaborative to include new industry and nonprofit organizations, higher education institutions, and government partners interested in working together to better support women of color in engineering.

In this panel session, four representatives from the WCEC planning team will discuss why the WCEC was formed, how we brought together 29 organizations to create a strategic plan, movement towards implementing the strategic plan, and ways that others can get involved in our work.

# **Roberta Rincon Ph.D.**Associate Director of Research, SWE



As SWE's Associate Director of Research, Roberta oversees the organization's research activities on gender equity issues affecting girls and women in engineering, from school to career.

**Rochelle Williams, Ph.D.** *Chief Programs Officer, NSBE* 



As NSBE's Chief Programs Officer, Rochelle is responsible for supporting the strategic outcomes and implementation of NSBE programs from the Pre-Collegiate, Collegiate, and Professional demographics. She is also responsible for the Society's sponsored programs and research efforts.

**Dayna Martinez, Ph.D.**Chief Programs Officer, Director, Research & Innovation, SHPE



Dayna serves as Director for the Research & Innovation office at SHPE. In this role, she oversees the Equipando Padres program, Noche de Ciencias, as well as different aspects of research and data analysis. Being Hispanic and an engineer herself, Dayna has a passion for increasing Hispanic representation in STEM.

**Bianca McCartt**Engineering Talent Pipeline Development Leader, GE Aviation



Bianca joined GE in 2004 on the Edison Engineering
Development Program. Throughout her career she has woven together technical experiences with rewarding opportunities to support the advancement of fellow engineers. Bianca holds a BSME from the University of Kentucky.

# "NSF Directorate for Technology, Innovation, and Partnerships"

The National Science Foundation (NSF) Directorate for Technology, Innovation and Partnerships, TIP, advances use-inspired and translational research in all fields of science and engineering, giving rise to new industries and engaging all Americans — regardless of background or location — in the pursuit of new, high-wage jobs in science, technology, engineering and math (STEM).

Every year, TIP programs fund about 400 startups and small businesses, 200 NSF Innovation Corps (NSF I-CorpsTM) Teams, and more than 1,100 institutions, not to mention countless students as part of those awards. Overall, NSF funds an estimated 11,300 awards each year. TIP programming has three primary foci — fostering innovation and technology ecosystems, establishing translational pathways, and partnering across sectors to engage the nation's diverse talent.

**Parvathi Chundi, Ph.D**Program Director, Directorate for Technology, Innovation, and Partnerships, NSF



Dr. Parvathi Chundi manages the advanced analytics and artificial intelligence topics in the SBIR/STTR program. Her research interests span the areas of data management and machine learning technologies. She is also a faculty in the computer science department in the College of Information Science and Technology at the University of Nebraska-Omaha and is a University Distinguished Professor. She has extensive

industrial experience including startup ventures and research labs such as the GE Corporate Research and Development Center, and HP and Agilent Labs, and holds six patents.

## "Sharing the Lives of Women in Engineering Through Wikipedia Edit-a-Thons"

In this session, attendees will learn how Wikipedia writing has been used as part of engineering curricula in technical communication classes, as well as part of co-curricular programming outside of the classroom. Attendees may then apply this information to crafting assignments and events in which Wikipedia is expanded to include the lives and work of women engineers throughout history and around the world.

As the world's largest encyclopedia, Wikipedia has over 255 million views a day and is the eighth most-visited site in the world. This critical source of open-access information has grown in reputation and accuracy, but it continues to reflect societal inequities both in terms of participation and content. Most Wikipedia editors come from the United States and Europe, and most of the editors (over 80%) on English-language Wikipedia are men. In terms of content, only 19% of the biographies on Wikipedia are about women, and even fewer are about women in engineering. Such disparities on Wikipedia can be addressed when Wikipedia articles and the population of Wikipedia editors are expanded to be more inclusive; Wikipedia writing in the classroom and in co-curricular events can help in this effort.

In the higher education classroom, college students, who are actively acquiring research, writing, and analytical skills in their courses, are well-positioned to contribute to Wikipedia and expand the knowledge base of millions around the world. In addition, writing for a real-world audience provides public writing experiences that can increase student motivation to work conscientiously and accurately. Outside of the classroom, Wikipedia writing has been made part of edit-a-thons where people learn how to edit Wikipedia and subsequently edit articles on a particular topic or theme.

# Helen Choi, J.D.

Senior Lecturer, Engineering in Society Program, University of Southern California



Helen Choi teaches writing, and has created and administers various co-curricular programs, such as grammar tutorials. Her research interests include the role of public-facing writing in the development of digital citizenship and ethical awareness among engineering students. She previously practiced general corporate law and earned undergraduate degrees in philosophy and ethnic studies from University of California, Berkeley and a

J.D. from Harvard Law School.

## "Featured Panel: AAC&U Convergence Incubator Program Fellows"

The American Association of Colleges & Universities (AAC&U) Convergence Incubator Program for BIPOC women in STEM is a collaborative incubator program that provides early entrepreneurial education, access to mentors, and investor network connections. During the yearlong program, participants receive a stipend of \$15,000 and learn about business modeling, product development, finance, and intellectual property. In this panel session, program leaders and fellows will discuss their experience in the program thus far and their goals for the future.

#### **Fellows**

#### Aarti Kuver, Ph.D.

Founder, AKScientist; Co-Founder and Editor in Chief, AKJAM Publishing

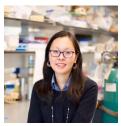


Dr. Aarti Kuver spent over a decade serving as an independent researcher, science communicator, and mentor. Recognizing the need for inclusive and transparent communication between scientists and the general public, she created the Breakdown: Science for Everyone, or Vanity Fair for STEM. She offers an alternative perspective to conventional media outlets by publishing content ranging from fashion, beauty, and inter-

views in a straight-up lexicon. Her research at AKScientist and Stanford University has been published in internationally recognized peer-reviewed journals and conferences.

# Jin Kim Montclare, Ph.D.

Founder, TIEN; Professor, Director for the Convergence of Innovation & Entrepreneurship Institute, and co-Director of Computationally Designed-Genetically Engineered Materials, Tandon School of Engineering, New York University



Dr. Jin Kim Montclare is a Professor in the Chemical and Biomolecular Engineering, Chemistry, Biomaterials and Radiology at New York University, exploiting nature's biosynthetic machinery and evolutionary mechanisms to design new artificial proteins. Her lab focuses on two research areas, developing protein biomaterials and engineering functional proteins/enzymes for particular substrates. Dr. Montclare leads the multidisciplinary

Convergence of Innovation and Entrepreneurship (CIE) Institute. She has garnered several awards and honors.

#### **Levern Currie**

Founder, Drivingo; DoD SMART Scholar, Air Force Research Laboratory; Ph.D. Candidate, Industrial and Systems Engineering, Virginia Tech



Levern Currie is a Department of Defense Science, Mathematics, and Research for Transformation (SMART) scholarship recipient and current Ph.D. candidate at Virginia Tech, where she is a member of the Therapeutic Ultrasound and Non-invasive Therapies Lab. She is the founder of Drivingo, a tech startup focused on adding gesture-based ordering systems

at fast food and other such establishments and restaurants to enhance customer service interactions.

# Panel Hosts Kelly Mack, Ph.D.

Vice President for Undergraduate STEM Education, AAC&U



Prior to joining AAC&U, Dr. Mack was the Senior Program Director for the NSF ADVANCE Program while on loan from the University of Maryland Eastern Shore, where she taught courses in physiology and endocrinology for 17 years. During her tenure at NSF, Dr. Mack managed an annual budget of approximately \$17 million, facilitated the inclusion of issues targeting women

of color into the national discourse on gender equity in the STEM disciplines and significantly increased the participation of predominantly undergraduate institutions, community colleges and minority serving institutions in the ADVANCE portfolio.

# Shanalee Gallimore, Ph.D.

Postdoctoral Fellow, Office of Undergraduate STEM Education, AAC&U



Shanalee Gallimore is a postdoctoral fellow at the American Association of Colleges and Universities focusing her efforts on advancing the NSF-funded Center for the Advancement of STEM Leadership (CASL), which aims to capture how academic leaders at our nation's HBCUs have been so instrumental in broadening the participation of Blacks in STEM. Dr. Gallimore received her PhD in Higher Education from

Indiana University Bloomington, and her bachelor's and Masters' degrees in Biology from Florida A&M University.

# "Advancing Inclusion for URM Women in STEM Graduate Programs"

Using the metaphor of a ladder, this presentation will outline programs unique to the College of Engineering and Applied Sciences (CECAS), which have elevated the college's ability to recruit and support women in STEM, including STEM ALL IN, ASPIRE, and Bridge 2 the Doctorate (B2D). Facilitators will discuss how the college built upon undergraduate recruitment, alumni relations, industry connections, and university articulation agreements to increase the recruitment of women to STEM graduate programs through dedicated staff member time, internal and external funding, and broader and targeted DEI programs. Facilitators will share institutional data on application and enrollment trends related to women in STEM to discuss how the nexus of these programs and layers of institutional investment contribute to the recruitment, retention, and support of women in STEM.

STEM ALL IN is a recruitment initiative with a dual mission to educate URM students on pathways to advanced degrees in STEM, while showcasing what Clemson University offers. Entering its 5th year, STEM ALL IN has provided educational support to 41 URM women in STEM and four participants have ultimately enrolled at Clemson University. The ASPIRE to Advance mentoring program is a retention and career development initiative which pairs graduate students (open to URM and non-URM students) with peer mentors from graduate programs across the college. In 3 years Aspire to Advance has matched 230 students with peer mentors, and a total of 79 women in STEM have participated. In 2022 Clemson University welcomed its first cohort of 12 NSF B2D fellows. Of the 12 fellows, 6 are URM women, and 4 participated in STEM ALL IN.



#### Melissa C. Smith, Ph.D.

Associate Dean for Inclusive Excellence and Graduate Studies, Clemson University



Dr. Melissa C. Smith serves as the Associate Dean for Inclusive Excellence and Graduate Studies and is a Professor in Electrical and Computer Engineering at Clemson University. She received the YMCA Stratford Award for Diversity and Inclusion in 2017 and the Tribute to Women Award in Science and Technology from the YWCA in 2006.

# **Tonyia Stewart**

Director, Graduate Recruitment and Inclusive Excellence, Clemson University



Tonyia Stewart serves as the Director of Graduate Recruitment and Inclusive Excellence. She manages and coordinates STEM ALL IN, Aspire to Advance, and Bridge to Doctorate programs.

# Andrew Edmunds, Ph.D.

Coordinator, Graduate Recruitment and Inclusive Excellence, Clemson University



Dr. Andrew Edmunds serves as Coordinator for Graduate Recruitment and Inclusive Excellence. In his role he supports the recruitment, admission, and retention of graduate students in CECAS with a special emphasis on URM, women, and domestic students.

# "Things Will Never Be the Same: The Intentionality of Change"

Institutional change tends to be slow and stately, but sometimes it is necessary to break decisively with the past or to respond rapidly to quickly changing circumstances (Harries, 2012). Institutional change integrates technology, policy, and behavior to make new practices and perspectives become a typical part of how an agency operates. Institutional stability (or equilibrium) is far easier to explain than change: institutional change means increased uncertainty because any particular set of institutions are embedded in a variety of other institutions; it is difficult to accurately predict the long run consequences of even small rule changes. Once again, every institution favors some interests and ideas over others, and therefore the advantaged generally loath to change the status quo (Steinmo, 2001).

The Emerging Ethnic Engineers (E3) Programs initially launched at the University of Cincinnati over 34 years ago. Launched by Dr. Edward N. Prather, the goal of the person was to create an inclusive climate and support systems for racially and ethnically diverse students in the College of Engineering and Applied Science (CEAS). The program supported students by offering the ENP Summer Bridge program and collaborative courses for first-year students. In 2018. CEAS created the Office of Inclusive Excellence and Community Engagement (IECE) and appointed the inaugural Assistant Dean of Inclusive Excellence Community Engagement. Since the beginning, the office has been intentional about creating, assessing, evaluating and researching programming for underrepresented and underserved populations in the college. In addition to strengthening and expanding programming for enrolled students, office has successfully created pathways into the college through its community engagement activities for racially and ethically diverse students and women.

The Assistant Dean also launched the formation of the College's Diversity, Equity and Inclusion Committee within the College while serving as a liaison to the University-wide DEI committee. Through the council, CEAS has expanded the number of initiatives designed to create an inclusive climate on campus, such as hosting an annual Equity and Inclusion Summit, adding DEI modules to curriculum, and including DEI work in RPT consideration.

In this session, the presenter will talk about the intentionality needed to overcome the barriers needed to create welcoming environments for current and potential students, faculty and staff.

# Whitney Gaskins, Ph.D.

Assistant Dean of Inclusive Excellence and Community Engagement, College of Engineering and Applied Science, University of Cincinnati



In her role as Assistant Dean, Dr. Gaskins has revamped the summer bridge program to increase student support and retention as well as developed and strengthened partnerships in with local area school districts to aid in the high school to college pathway. She serves as the Principal Investigator for both the Choose Ohio First Program (COF) and Ohio LSAMP grants. In 2009, she founded The Gaskins Foundation, a

non-profit organization, whose mission is to educate and empower the African American community.

