

**Broadening Participation Plan**  
**Department of Electrical & Computer Engineering**  
**University of Virginia**



**Effective Dates:** 03/07/2023- 03/07/2025

**Contact:** Diversity Committee; Mool C. Gupta, chair, [mgupta@virginia.edu](mailto:mgupta@virginia.edu)

Committee members: K. Williams, N. Sidiropoulos, A. Ghosh, and A Barnes

**1. Context**

The Electrical & Computer Engineering (ECE) department at the University of Virginia (UVA) has grown rapidly in the last five years, adding 15 new faculty, and rising in rankings in Electrical Engineering and in Computer Engineering. The total faculty now numbers almost 40, half of whom are assistant and associate professors. ECE faculty come from all around the world and include seven women. With one of the highest ratios of (33%) of graduating women engineering students among public universities, the University of Virginia is fundamentally committed to increasing the diversity of its faculty and staff. The engineering school has assigned certain faculty members as the Directors of Diversity, Equity, and Inclusion (DDEIs) that are embedded in each academic department and serve to promote equity, diversity, and inclusion at the departmental, curricular, and extracurricular levels. The DDEIs work closely with the Center for Diversity in Engineering to build and sustain connections across departments and among faculty, students, and staff. The foci of DDEI work include revising policies, curricular reform, recruitment, student support, and improving culture.

The status of student gender and race diversity in graduate and undergraduate education in the ECE department is shown in the tables below:

Year	Graduate Students						Undergraduate Students					
	Gender (%)		Race (%)				Gender (%)		Race (%)			
	W	M	white	Black Am., Hispanic	Asian	Unspecified	W	M	white	Black Am., Hispanic	Asian	Unspecified
2022	27	73	23	3	72	5	17	83	53	15	27	5
2021	26	74	23	3	71	6	16	84	53	18	25	4
2020	25	75	26	5	66	7	18	82	53	14	26	7

The overall recruitment of undergraduate students majoring in ECE needs to be improved further, alongside increasing the representation of women and students from underrepresented racial and ethnic groups (URGs), which includes American Black, Hispanic, American Indian, and Hawaiian students. We are also aware of a need to increase the number of American Black and Hispanic faculty as well as the number of women faculty in the ECE department. The percentage of faculty who are women is 17.5%.

**2. Specific Goals**

**G1.** We will increase undergraduate women students to 20% in three years and to 25% in five years through scholarships and recruitment practices.

**G2.** We will increase the ratio of Black and Hispanic students by 25% from the current numbers in the next five years through HBCU-enhanced interactions, scholarships, and recruitment practices.

**G3.** By fall 2023, we will collect a baseline sense of belonging measurement for undergraduate students. Each year, we will increase the sense of belonging for students from URGs until it matches students from the majority groups.

### **3. Activities and Measurements**

**A1.** Faculty will participate in the ECE Allyship program that matches every incoming student from a URG who wishes to be matched to a faculty ally, provide training to the allies, and provide a framework for developing meaningful allyships that support the success of URG students. (G2)

**Sidiropoulos**

**Measurement:** Track participant data, race, gender, graduation rate, and level of satisfaction of these students over a period of three years. We will aim to establish eight allyship relationships over a period of three years.

**A2.** Engage at least three Black or Hispanic students in undergraduate research opportunities through the allyship program in the 2023-2024 academic year and recruit those students to Ph.D./M.S. programs. (G2) **Sidiropoulos, Ghosh**

**Measurement:** Measure student satisfaction in the ECE allyship research program and recruitment to graduate programs.

**A3.** Recruit at least two URG students to the ECE program through the A. James Clark Scholars Program. The program provides unique educational and financial opportunities to exceptional students from URGs. (G2) **Williams**

**Measurement:** Monitor the retention rate of students recruited through the Clark program.

**A4.** Faculty and graduate students to participate in an annual DEI seminar led by a national DEI expert. (G1, G2, G3) **Gupta**

**Measurement:** Evaluate attendance numbers and participant learning with seminar content.

**A5.** Establish long-term relationships and research partnerships with HBCUs in Virginia. UVA faculty to present their research at HBCUs and invite HBCU faculty as speakers for the ECE seminar. Faculty to host students to visit UVA research labs. (G2) **Gupta, Williams, Ghosh**

**Measurement:** Track the number of research partnerships with HBCUs and the number of HBCU students applying to and joining the ECE graduate program.

**A5.** Provide and manage two \$1000/ea. sophomore fellowships to female undergraduate students declaring ECE major and leveraging the M. Veeraraghavan graduate fellowship to attract female graduate students. (G1) **Barnes**

**Measurement:** Measure retention of students in the ECE program.

**A6.** Identify a URG candidate for the ECE faculty position to be hired through the UVA Engineering Dean's Rising Scholars (Rising Scholars Postdoctoral Program, University of Virginia School of Engineering and Applied Science). (G2) **Williams, Sidiropoulos**

**Measurement:** Track allocation of faculty positions to ECE by the Dean's office and the number of URG candidates.

**A7.** Participate in the CRA Data Buddies Project to collect data for a sense of belonging. (G3)

**Measurement:** Track progress based on the results of the report. **Barnes, Ghosh**

**A8.** Faculty to participate in a recruiting event organized by the Society of Women Engineers (G1) **Crockett**

**Measurement:** Track the number of faculty participating and the number of women students recruited through this event.