

**Departmental BPC Plan**  
**Department of Electrical and Computer Engineering**  
**Boston University**



**Effective dates of Plan:** 01/04/2023- 01/04/2025

**Contact:** Karen Hennessey, Director of ECE <ecedei@bu.edu>

## 1. Context

BPC activities within the Electrical and Computer (ECE) Department are focused on addressing diversity, equity, and inclusion at both the student and faculty levels. Currently, 22% of all undergraduate ECE majors identify as female, 13% as LatinX, and 4% as African American or Black. The ECE department is addressing inclusion and equity by continued support and engagement with University student groups for Under-Represented Minorities<sup>1</sup> (URM), it's National Consortium for Graduate Degrees for Minorities in Engineering and Science (GEM) affiliation, and faculty commitments with BU K-12 outreach programs for URM students. In addition, we plan to address any underrepresentation among faculty members. Currently, 12% of our tenure-track faculty are female and 10% are URM.<sup>2</sup>

## 2. Goals

**G1:** In 2023 and 2024, we will aim to increase the diversity of students in our undergraduate and graduate programs by improving the retention and recruitment of women and students from URM groups.

**G2:** Start implementing best practices in our searches by 2023 to increase recruitment and retention of faculty from racial/ethnic and gender groups underrepresented in ECE.

**G3:** In 2022 and 2023, continue to increase interest and understanding of opportunities in ECE for pre-college women and students from URM groups. (K-12 activities)

## 3. Activities and Measurement

**Activity 1: Supporting and Sponsoring Student Clubs: [G1]** ECE supports student clubs such as ACM-Women, Society for Hispanic Professional Engineers, National Society for Black Engineers, Society of Women Engineers, and Society of Asian Scientists and Engineers. The department financially supports events and initiatives. Faculty participate in club activities as club advisors and guest speakers.

**Measurement:** Start collecting and analyzing data from end-of-year reports submitted by student clubs, including list of activities, number of students reached, and number of ECE faculty involved. **Contact:** Karen Hennessey, BU Department Director.

**Activity 2: Technology Innovation Scholars Program (TISP): [G1, G3]** TISP recruits and trains engineering majors at BU and sends them to middle and high schools around the country to explain how engineering can transform lives for women and URM students.

**Measurement:** Request data from TISP of middle and high school students participation. They survey outcomes including demographics and admission into an engineering program. We will

<sup>1</sup>For this purpose, individuals who identify as one or more of the following: Female, regardless of assignment at birth, African American/Black, Hispanic/LatinX, Native American, Alaskan Native, LGBTQIA+, Disabled.

<sup>2</sup>According to the 2021 ASEE survey, 15.3% of faculty in electrical and computer engineering departments are female, whereas it is 12% in our department.

also track how many participants subsequently apply to and enroll in BU. We will collect data on the number of faculty involved and from what department. **Contact:** Karen Hennessey, BU ECE Department Director

**Activity 3. Undergraduate Research [G1].** Increase the number of URM undergraduate students participating in research. The Associate Dean of Diversity will help identify URM student pools for faculty to recruit into the Undergraduate Research Opportunities Program (UROP).

**Measurement:** Each year we collect data on undergraduate students participating in research. We will track how many students from URM groups.

**Contact:** Karen Hennessey, BU ECE Department Director

**Activity 4: DEI in Tech Collective: [G1,G3]** The DEI in Tech Collective is a multi-department initiative consisting of both faculty and staff that aims to advance diversity, equity, inclusion, and justice across cognate departments. The Collective will implement an annual town hall to engage in community discussion around the results of the annual climate survey, and amplify DEI events and shared initiatives. Faculty engage by serving on the committee, outreach activities and leading data collection and analysis.

**Measurement:** Count and survey attendees of DEI events.

**Contact:** Karen Hennessey, BU ECE Department Director.

**Activity 5: Faculty Recruitment: [G2]** Increase the number of URM candidates through an emerging scholars program launching in 2023. Faculty engage by participating in the committee, inviting, hosting, and recruiting URM faculty. Search committee members attend BU events to review practices and procedures to ensure a fair and equitable search. ECE has a Distinguished Colloquium Series where faculty propose, recruit, and host speakers from URM groups.

**Measurement:** We collect demographic data of faculty applications, interviews, offers, and acceptances, including demographics of search committees. We track faculty participation at our ECE Distinguished Colloquium Series through attendance sheets, and track demographics of colloquium speakers to ensure a range of identities are represented.

**Contact:** W. Clem Karl, Chair of BU ECE.

**Activity 6: Enhance high school outreach: [G3]** BU's Learning Resources Network (LERNet) delivers programs to local K-12 students. LERNet offers several summer programs that focus on students from URM groups who are interested in STEM such as ARTEMIS, Codebrakers, Pre-Hacks@TechTogether, Summer Pathways, AI4All, and GROW. ECE faculty engage by mentoring student instructors, K-12 students, guest speaking, and hosting students in labs. We will strengthen ties with the Director of LERNet to understand student outcomes from participating in the ECE portion of these programs.

**Measurement:** LERNet programs survey outcomes including demographics, student attitudes and admission into an engineering program. We will collect data on the range of faculty involved.

**Contact:** Doug Holmes, Interim Dean for Outreach and Diversity