Departmental BPC Plan
Department of Electrical and Computer Engineering
University of Illinois at Urbana-Champaign

Effective dates of Plan: 11/22/2021- 11/22/2023
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The Department of Electrical and Computer Engineering (ECE) at the University of Illinois at Urbana-Champaign (UIUC) is one of the largest departments at our public, land-grant institution. There are about 1200 undergraduates in Computer Engineering, 900 undergraduates in Electrical Engineering, and 700 graduate students of whom 540 are in the MS or PhD program. One of the four main goals listed in the department's strategic plan is to "Recruit and retain diverse groups of students, faculty, and staff and promote a sense of community."

Goals, Activities, and Measurement (Contacts are listed in parentheses.)

G1: Faculty Knowledge of Department Demographics and Student Experiences: Each semester, data is shared at a faculty meeting on the representation and experiences of current ECE students from underrepresented groups (i.e., people who identify as women, African American, Black, Hispanic, Latinx, Native American, Native Alaskan, Native Hawaiian, Pacific Islander, and/or Indigenous), disaggregated by major (CompE and EE undergraduates) and level (undergraduate, professional masters, MS, and PhD).
A1a: Presentation of demographics to faculty: Faculty members on the BPECE data subcommittee collect data and present it at a faculty meeting each semester (Kudeki, Lumetta, Oelze).
A1b: ECE faculty promotion of Data Buddies Survey: The faculty encourages ECE students to participate in the CRA Data Buddies Survey by announcing in classes and discussing with mentees. Faculty members on the BPECE data subcommittee work to customize the survey, and present data at a faculty meeting annually (Hajek, Hobbs, Lumetta).
M1: Track what data is collected and shared.   Track participation in the Data Buddies survey.

G2: BPC Learning by Faculty: At least 80% of the faculty participate in learning about BPC annually.
A2a: **External programs:** Opportunities include workshops and seminars hosted by the Office of the Vice Chancellor for Diversity, Equity, & Inclusion and the Grainger College IDEA institute. Faculty organizes a BPC session at each annual faculty retreat. (Hajek).
A2b: ECE Distinguished Colloquium Series: Faculty members coordinate with organizers to propose, recruit, and host speakers from underrepresented groups (Veeravalli, Winterbottom).
M2: Track faculty participation through attendance sheets, and track demographics of colloquium speakers to ensure a range of identities are represented.

G3: **BPC activities through committee service (G3):** At least 15% of the faculty (fifteen faculty members) serve on a BPC oriented committee annually.
A3: ECE faculty serve on diversity, equity, and inclusion (DEI) oriented committees: Opportunities include the College Committee on Diversity (IDEA Institute), the ECE Broadening Participation Advisory Committee, Vice Chancellor's Committee for Diversity, Equity & Inclusion (Sweet).
M3: Track faculty participation using committee assignment system and annual faculty biodata reports.

G4: K-12 broadening participation outreach: Promote interest and understanding of opportunities in ECE for at least 500 K-12 students or their parents from underrepresented groups, annually.

A4a: Faculty participation in engineering summer camps for K-12 students from underrepresented groups: ECE faculty provide informal learning opportunities, ranging from a half day to a week or more. Partnering opportunities include the WYSE High School Summer Camps program and Young Scholars Program in the Grainger College of Engineering and the 4-H Illini Summer Academy. (Y. Chen, N.S. Kim, Bhowmik, Goddard).

A4b: Expanding role of Saturday Engineering for Everyone and Engineering Open House: Faculty members help promote attendance of SEE and EOH by classes from K-12 schools with high percentages of underrepresented students, and present engaging lectures. (Roy Choudhury, Schutt-Aine).

M4: Track faculty participation in outreach, number of faculty visits to local schools or churches, number and demographics of students reached, and ongoing, established evaluation of summer programs.

G5: Undergraduate research: Increase the number of undergraduate students from underrepresented groups participating in thesis research. (Undergraduate theses completed per year, 2011-2021 average: female 9, Hispanic 1, Black 1/3. Increase to 12+, 3+, 2+ per year, respectively, in next two years.)

A5a: Collection of data on undergraduate research: Collect data on numbers of undergraduate students in underrepresented groups participating in thesis research (Lumetta).

A5b: Recruit and mentor undergraduate students from underrepresented groups to pursue research: Faculty deliver research presentations in student organizations or events addressed to underrepresented groups, and invite/encourage engagement through invitations to group meetings and individual weekly research discussions (Hajek, Kudeki).

A5c: Faculty support of BPC through conference participation: The faculty recruits and mentors students from underrepresented groups to attend technical conferences, including but not limited to the diversity, equity, and inclusion (DEI) specific conferences NSBE, SHPE, NCWIT, and Grace Hopper. Faculty members organize pre-conference information meetings and accompany students at conferences (Hasegawa-Johnson, Somers).

M5: Track number and demographics of students participating in research and attending conferences.

G6: Faculty, Staff, and Student Recruitment and Retention: Each year, the representation of faculty and staff applicants and of matriculated students from groups underrepresented in ECE will increase.

A6a: Student recruiting and retaining diversity advocates: Faculty members serve as diversity advocates on graduate recruiting and fellowship committees and assist faculty in the mentoring of a diverse student population (Ilie, Chitambar, Bernhard).

A6b: Hiring practices: Search committees document effective proactive efforts to build diverse applicant pools. Faculty members serve as diversity advocates and lead BPC faculty recruiting efforts implementing college recommended practices, such as serving as mentors for the Rising Stars in EECS Program (Hajek).

M6: Track number and demographics of faculty and staff applicants and matriculated students, faculty participation as diversity advocates.