



COUNCIL ON UNDERGRADUATE RESEARCH

2024-2025 Elections Engineering Division: Division Representative Candidates

Position Purpose: The work of Divisions is done by Division Representatives who advance undergraduate research by providing networking opportunities, activities, and educational content. Their aim is to create and foster community and value within the organization. Representatives support the members of their division in activities and programs that align with the CUR strategic plan, mission, vision, and values.

Needed Qualifications:

- Capable mentor: Experienced guide and supporter of others looking to advance their personal growth and development in areas connected to but not limited to UR.
- Communication: Professional and effective communicators, experienced in difficult conversations and able to hear and disseminate community needs
- Collaborative Spirit: Team players making space for all voices to be heard, furthering the collective understanding of the group, and cultivating outcomes to best serve CUR and its membership

There are 2 individuals running.

You may vote for all candidates presented to be elected as representatives for this division.

This division will also be accepting write-In candidates for this election cycle.

Candidate information is presented on the following pages. Click on each candidate name below to be taken to their Information In the document.

- [Beena Ajmera](#)
- [Heather Dillon](#)

Beena Ajmera, Iowa State University

Engineering Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

I have been actively engaged in undergraduate research activities for nearly a decade. In particular, as a faculty member, I frequently engage undergraduate students in meaningful research experiences supervising or co-supervising 25 students in semester or year-long projects, while providing summer research experiences to another 33 undergraduate, 6 community college, and 19 high school students. In addition, I have provided summer research experiences to 10 middle and high school teachers. About 81% of my 177 products as a faculty member have been co-authored by students working in my research group. At my institution, I am an active mentor for the Freshman Honors program and the Academic Program for EXcellence for Engineers (APEX-E). The Honors program requires first year engineering students participate in research during their spring semester, while the APEX-E requires that incoming freshman are engaged in faculty-mentored research during the summer before their freshman year. In addition to mentoring undergraduate students in research, I am leading several of my colleagues in our efforts to create an undergraduate research program in the College of Engineering funded by industry support. I serve as the principal investigator for NSF-funded Research Experiences for Teachers site in addition to being a senior personnel on a NSF-funded Research Experiences for Undergraduates site.

In what ways have you helped promote diversity and inclusion in URSCI?

I have had the great fortune to provide research experiences to nearly 140 students, among which 58 (42%) have been undergraduate students, six (4%) were community college students, and 19 (14%) have been high school students. Over 44% (61 students) have been from underrepresented and/or underserved populations in engineering. In addition, I have provided research experiences to 10 middle and high school teachers from rural communities with about 40% of them belonging to underrepresented and/or underserved populations. Approximately 56% of my publications co-authored by students are with students from underrepresented and/or underserved populations. I have personally witnessed that diverse teams make us stronger and have been fortunate to work alongside talented, creative and insightful students, faculty and colleagues. As such, I am committed to making a difference to ensure that everyone is given the opportunities to excel in their scholarly pursuits.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

I have led several efforts to institutionalize undergraduate research. For example, at my former institution, North Dakota State University, I proposed and developed a course on Undergraduate Research Experiences in the Department of Civil and Environmental Engineering (now, Civil, Construction and Environmental Engineering). This class included six discipline-specific sections encouraged my colleagues to engage undergraduate students in meaningful, hands-on research activities leading towards the development of a culture of undergraduate research in the department. My course documents were developed to provide faculty with best practices to support and engage undergraduate students, recommendations on resources for additional support and a minimum threshold of activities that ensured students could reap the intended benefits of the course. At my current institution, Iowa State University, I am leading a college-wide initiative to establish a scalable and sustainable undergraduate research program with two other colleagues. My involvement has

shaped the program increasing its attractiveness among the faculty in the college, garnering support from industry partners and preparing to secure federal funding for the associated activities. These efforts demonstrate that I have been actively involved in advancing undergraduate research outside of the confines of my research group in ways that strongly align with the CUR strategic plan, mission, vision and values. Additionally, I am currently involved in the Engineering Division Grant Writing Subcommittee that is preparing a proposal to further advance our knowledge about undergraduate research through the support of federal funding.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight?

I have been involved with the CUR Engineering Division since being elected as Councilor in 2016 serving as the Divisional Representative on the National Conferences for Undergraduate Research (NCUR) Oversight Committee (NOC) for the entire duration. I have served as the division's webmaster for six years and am currently part of the Grant Writing Subcommittee. I have frequently served as a Reviewer for NCUR and Posters on the Hill submissions. Whenever possible, I have assisted with the activities within the division and I look forward to the opportunity to continue my contributions to our activities.

Heather Dillon, University of Washington Tacoma

Engineering Division Nominee

NOMINEE STATEMENTS

Please comment on your involvement in undergraduate research activities in the context of your institution and its mission.

I have taken a leadership role on campus to encourage undergraduate research. In the School of Engineering as the program chair for mechanical engineering (ME), where the ME program now boasts 60+% of students participating in some kind of undergraduate research during their academic experience. I have also served on the campus Research Advisory Committee (RAC) and other committees tied to leadership in research.

In what ways have you helped promote diversity and inclusion in URSCI?

For several years I have led a program that supports ~5 students from Tacoma Community College to join ongoing research projects at UWT. I find the students' projects, mentors, and check in on them frequently. I also launched a summer program that allows students transferring into UWT to participate in research projects as part of their transition to campus. This allows students to get settled on campus with a project and community/team as they get settled on campus.

How do you anticipate your skills will help successfully uphold the Division Representative charge?

I has also worked to institutionalize undergraduate research at the national level, serving as the lead facilitator for a workshop focused on undergraduate research since 2019 funded by Keen. I have mentored over 125+ engineering faculty from around the country in this program to help them increase their undergraduate research experiences.

If you have served a previous term as Division Representative (previously Division Councilor), are there any particular contributions during your previous term(s) that you would like to highlight?

I have served as the CUR engineering division chair and on many CUR committees.