

DEI Council Report to Dean  
Academic Year 19-20  
submitted June 2020

The College of Engineering DEI Council was formed November 1, 2018 with Michelle Scherer and Jan Waterhouse as co-chairs. Cathy Koebrick replaced Jan Waterhouse when Jan took a position in central HR and several new members have been added over the last year and a half as additional representation was requested.

### DEI Council Charge

- Provide leadership within the College of Engineering to promote and achieve a culture that values diversity, equity, and inclusion (DEI), especially racial/ethnic and gender diversity, as evidenced by the College's policies and practices;
- Assess the current state of the College of Engineering climate for DEI;
- Lead the creation of the College of Engineering's Diversity, Equity, and Inclusion Action Plan with input from faculty, staff, and students; oversee implementation of the Action Plan; assess the effectiveness of outcomes of the Action Plan; and
- Advise the College about strategies and best practices related to recruitment and retention of female and underrepresented faculty, staff, and students.

### DEI Council Vision Statement

We envision an equitable and inclusive environment in the College of Engineering that recruits, develops, and retains a diverse community that thrives as engineers, educators, and administrators.

### DEI Council Mission Statement<sup>1</sup>

Do a comprehensive (quantitative and qualitative) equity analysis across all levels of college. Be alert to, and **be willing to change, policies and structural issues** to make sure they are designed so that **everyone is treated equally** (i.e., use universal design). **Maximize each individual's potential** by transparent and equitable allocation of resources (this is the inverse of the squeaky wheel gets the grease). Update our evaluation and promotion processes to **hold people accountable** for doing their job and implementing equitable and inclusive practices. Assess the climate through surveys and a series of listening posts with small groups representing different ranks, demographics, and **perspectives**. Create re-occurring, sustainable programs that make people feel included and that they have a voice. Market the equitable and inclusive environment and what a great place it is to work and study here and then recruit and retain people from diverse cultures to create a more productive and inclusive community.

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<sup>1</sup> Adapted from the Six Principles for An Inclusive Academy (Stewart and Valian, 2018, MIT Press)

### **College of Engineering Diversity, Equity, and Inclusion Council Members (2019-2020)**

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|-------------------------|---|
| Michelle Scherer        | Co-Chair, Professor, Faculty At-Large Member  |
| Cathy Koebrick          | Co-Chair, Director of Human Resources   |
| Nicole Grosland         | Associate Dean for Academic Programs  |
| Erwei Bai               | DEO of Electrical & Computer Engineering  |
| Brianna Marcelo         | Director of UI Diversity Resources and Strategic Initiatives                        |
| Priyadarshini Pennathur | Associate Professor, Industrial and Systems Engineering                             |
| Josh Atcher             | Director of Academic Resources and Support  |
| Kristin Lang            | Director, Undergrad Diversity Programs and Academic Advisor                         |
| Dan McGehee             | Associate Professor, Industrial and Systems Engineering                             |
| Hanley Sayavong         | COE student alumni – CBE, 2018  |
| Karina Foster-Middleton | Undergraduate Student, BME; UI Student Accommodation Coordinator                    |
| Marisol Contreras       | Graduate student, CBE   |
| Mohammed Elobeid        | Undergrad Student, Mechanical Engineering; member of NSBE                           |
| Kristina Venzke         | Admin for DEI Council and Assistant to AD for Graduate Programs, Research & Faculty |

## Update/Summary of DEI Council Recommendations

1. Create a charter for the DEI council that details policies and processes associated with membership.
2. Complete a diversity audit.
  - We have surveys and LPs of climate.
  - Review current college policies, procedures, and structures.
  - Gather and analyze quantitative data (*done*)
  - Conduct a college-wide equity analysis of salary and workload.
  - Start doing Faculty exit interviews.
  - Review promotion and tenure guidelines and modify to recognize and explicitly include DEI efforts.
  - Complete CUPA-HR DEI Maturity Index with DEI Council to assess CoE.
3. Evaluate internal communication process and develop an effective process for collecting and disseminating college news to faculty and staff.
4. Develop clear guidelines on how to conduct faculty and staff searches to minimize bias and recruit a diverse pool.
5. Consider creating a **Counselor in Residence** for undergraduate and graduate students to help maintain and promote mental health wellness.
6. Consider identifying a faculty member to serve as a **faculty/staff ombudsperson** in the college.
7. Look for opportunities to apply for grants to help foster diversity (e.g. NSF Advance).
8. Consider creating a K-12 pipeline program. For example, a Hawkeye Pathways program modeled after Michigan's Wolverine Pathways program.
9. Create a sustainable plan to educate and train faculty, student, and staff on how to create and foster an equitable and inclusive culture in the college and classroom.
  - Make use of BUILD, Building a Global Community, SafeZone programs offered through University.
  - Include some BUILD content in first year success seminar or somehow make it accessible to students.
  - Training for faculty on classroom practices and behavior that foster DEI.
  - Have college of engineering activities for first generation students, URM, females, international students (both undergrad and graduate) during their first year.
10. Make college resources more visible and accessible to everyone.
  - Expand the DEI website to be more accessible and comprehensive.
  - Clearly identify student organizations and their target groups.
11. Create programming to build a stronger sense of community and belonging.
  - Regular lunch and learns with Assistant Professors. (*done and on-going*)
  - Support and host a graduate student conference. (*done and on-going*)



the survey before a seminar and were invited to take the survey after a seminar. The survey was developed by us and asked questions to understand student's perspectives as a diverse being, their appreciation for diversity in others, and their willingness to share what makes them diverse. The surveys were completed using the Qualtrics platform, and they were not mandatory, and all information was recorded without direct identifiers (i.e., without a name or personal identification code such as university ID number, etc.).

Most engineering programs across the U.S. have disproportional representation of minorities compared to the overall population, and rates of course completion are usually lower for minorities. It is challenging though to find effective tools to create an environment that fosters belonging in engineering education. Here we investigate whether talking about diversity in a one hour engineering undergraduate seminar shifts students perceptions of diversity. We conducted two activities to explore student's personal perceptions of whether they contributed to diversity in the engineering school and how they would introduce fictional students to the class. We surveyed half of the students before the seminar and half after to evaluate if student perceptions shifted. The survey evaluated student's perception as diverse beings, their appreciation for diversity in others, and their willingness to share their diverse side. It also demonstrates that students that can identify diverse aspects of themselves are significantly more open to talking about diversity. When asked how fictional students should introduce themselves to the class, about 45% of the students chose to share a fact that brings diversity to the group and more impressively, this number significantly increases after our seminar on diversity. Importantly, our results showed that freshmen engineering students think it is important to talk about diversity.

### **Celebrating Diversity in Engineering Graduate Conference**

The Diversity, Equity and Inclusion Council at the College of Engineering hosted its 1st annual Celebrating Diversity in Engineering Conference for the graduate student body on January 24, 2020. Eighty-one students attended, with representatives from all six departments. The theme of the conference was "Celebrating Diversity in Engineering" with an emphasis the importance of students remaining true to their self and social identity, especially in STEM. The agenda was filled with many events including a research art gallery, a keynote speaker, a panel, a social networking event, and concurring workshops about diversity in the workplace, the realities of being in academia vs. industry, sustainability and more hosted by local and national prominent speakers.

The keynote speaker was Dr. Gina Guillame-Joseph, an Information Systems Engineer at The MITRE Corporation in McLean, Virginia. Dr. Guillaume-Joseph also serves as an Adjunct Professor and Doctoral Research Advisor at the George Washington University supporting students pursuing their doctorate in Systems Engineering. She currently serves as director of the International Council on Systems Engineering (INCOSE) Foundation STEM Initiative where she recognizes, advocates for, and supports ongoing academic programs and initiatives that support Empowering Woman as Leaders in Systems Engineering (EWLSE) goals including Science, Technology, Engineering, and Mathematics (STEM) and K-12 initiatives, Engineering Week, science fairs and engineering competitions, integrating systems engineering and systems thinking into the education of all engineers.

## Conference Agenda

|  |                   |
|--|-------------------|
| Opening Ceremony – Keynote Speaker<br>Dr. Gina Guillaume-Joseph, MITRE | 9:00am - 10:00am  |
| <b>Parallel Sessions #1</b>  | 10:15am - 11:15am |
| How to Identify and Disrupt Bias                                       |                   |
| So, You Want to Be a Professor?  |                   |
| From Academics to Industry   |                   |
| <b>Parallel Sessions #2</b>  | 11:30am - 12:30am |
| Navigating to Your Ideal Job & Salary                                  |                   |
| Sustainability and You   |                   |
| Overcoming Imposter Syndrome   |                   |
| <b>Lunch &amp; Research Art Gallery</b>                                | 12:30pm-2:00pm    |
| <b>Parallel Sessions #3</b>  | 2:00pm - 3:00pm   |
| Get to Know Your Peers (Activity)                                      |                   |
| Engineering for Social Justice   |                   |
| YOU Can Start a Business!  |                   |
| <b>Closing - Large Group Panel Discussion</b>                          | 3:15pm – 4:15pm   |
| Embracing Your Identity in the Workplace and Beyond                    |                   |
| <b>Mocktail Networking Hour and Raffle</b>                             | 4:15pm – 5:00pm   |

### DEI Initiative Awards

| DEI Initiatives Funding Recipients – FY20   |         |
|---|---------|
| Diversity Reading Group: To establish a forum for community members to be able to explore issues related to diversity and equity through discussion of readings from a broad variety of sources and to help establish a sense of community within the COE, above and beyond our specified roles at work   | \$1,250 |
| Support for Female Alliance of Civil Engineers (FACE) Group Meetings Speakers – to fund speakers for career workshops, visiting female speakers from companies and local governments in Iowa, and group discussions of the difficulties being a gender minority in Engineering  | \$300   |
| International Education Week: A reception in the Seamans Center Student Commons to celebrate IEW week and share the importance of global engagement in engineering  | \$350   |
| Guest Speaker on Minority Recruitment in Grad Programs – Submitted by BME, this project invites Moises Orozco Villacana, Director of Enrollment Management at the University of Illinois at Urbana-Champaign, School of Information Sciences, to speak in COE   | \$1094  |
| Research Project support: Minority Undergraduate Engineering Students at UI: Characterizing Their Successes and Struggles With a Research-Based, Data-Driven Approach   | \$5,000 |
| Joint submission by BME and CBE: Guest speaker Dr. Jennifer Linderman is a Professor of Chemical and Biochemical Engineering at the University of Michigan and Director of the University of Michigan’s ADVANCE Program. NSF ADVANCE programs have been contributing to the support of workplace initiatives that promote equity for STEM faculty that could serve as a model for COE | \$2134  |
| Mayors Youth Empowerment Program STEM workshop with a COE Student Org: This proposal seeks to broaden COE’s sphere of diversity, equity, and inclusion to promote awareness and understanding for those with intellectual disabilities in the community by pairing the MYEP participants with a COE student org   | \$250   |
| Learning at Lunches Workshops focused on the issues faced by First Generation College Students and Food Insecurity on College Campuses  | \$400   |
| Berimbau Workshop: The NEXUS of Engineering and the Arts will collaborate with the Department of Dance in presenting a Berimbau making workshop in the College of Engineering led by Silvio dos Reis. This cross-disciplinary collaboration will be an opportunity for students to explore technical and cultural ideas that can only enrich and enhance their UI experience.         | \$270   |