

Dear BED members,

This week I am happy to share that one of our own have been recognized for her contributions to Biomedical Engineering Education -- [Miiri Kotche, Ph.D., University of Illinois at Chicago](#), was one of 153 new members of the AIMBE College of Fellows in recognition of their distinguished and continuing achievements in medical and biological engineering.

Election to the AIMBE College of Fellows is among the highest professional distinctions accorded to a medical and biological engineer. The College of Fellows is comprised of the top two percent of medical and biological engineers. College membership honors those who have made outstanding contributions to “engineering and medicine research, practice, or education” and to “the pioneering of new and developing fields of technology, making major advancements in traditional fields of medical and biological engineering, or developing/implementing innovative approaches to bioengineering education.”  
Congratulations Miiri!

Also -- I wanted to give everyone a reminder that ASEE 2022 is scheduled for June 26-29, 2022 in Minneapolis, Minnesota. [Housing is now open!](#) And for those of you who have always enjoyed hearing about our antics with the portal systems - here's a fun fact from Tanya Nocera today (Thank you for your hard work on this year's meeting Tanya! - it will be amazing!)

Extra fun fact about Slayte, it automatically bcc's you on email communications individually for each person on your mailing list. So, I just sent this to 70 reviewers, and got 70 different identical BCCs in my inbox 😊😊😊😊

Be well and in good health!

Aileen Huang-Saad, BED Division Chair  
The Roux Institute, Northeastern University

### **BED Announcements for 3/1/21**

*General Announcements (e.g. upcoming Webinars, upcoming seminars, upcoming grants, publication opportunities, etc.)*

- 1. CALL FOR SPECIAL ISSUE CONTENT:** Experiential Learning in Biomedical Engineering
- 2. CALL FOR NEWSLETTER CONTENT:** ASEE BED Bi-monthly Newsletter
- 3. CALL FOR PARTICIPATION:** ASEE Industry 4.0 Workforce Summit, Omni Shoreham Hotel in Washington DC, April 25-26, 2022
- 4. CALL FOR PARTICIPATION:** Engineering Faculty Supporting Undergraduate Mental Health
- 5. CALL FOR PARTICIPATION:** ASEE 2022 House is now Open

*BME Education Resources for You*

- 1. FUNDING OPPORTUNITY:** NIH Team-Based Design in Biomedical Engineering Education

*Position Announcements*

- 1. POSITION ANNOUNCEMENTS:** Multiple education postdoctoral positions in the Biomedical Engineering Department at Georgia Tech
- 2. POSITION ANNOUNCEMENT:** Multiple Adjunct Faculty, Stevenson University

3. **POSITION ANNOUNCEMENT:** Department Head of Biomedical Engineering at the University of Arizona
4. **POSITION ANNOUNCEMENT:** First year Engineering at University of Tennessee
5. **POSITION ANNOUNCEMENT:** Assistant/Associate/Full Teaching Professor - Bioengineering, Northeastern University (Boston Campus)

*Engineering Education Research*

1. **REVIEWING PAPERS:** JEE Mentored Reviewer Program

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*General Announcements*

1. **CALL FOR SPECIAL ISSUE CONTENT:** [Experiential Learning in Biomedical Engineering](#)

Biomedical Engineering Education announces a special call for papers focused on experiential learning in biomedical engineering. Experiential learning is the application of students' knowledge and skills to real-world experience, whether within the clinic, the classroom, the laboratory, or the community. It fosters reflection on one's learning and the development of transferable skills. Examples may include clinical immersion, design, open-ended course-based labs, study abroad, entrepreneurial pursuits, internships, undergraduate research experiences, or clubs.

Authors are encouraged to submit an abstract that defines the paper type and the general scope of the intended paper at <https://tinyurl.com/BMEEAbstract>. Following feedback, a full manuscript will be requested by July 15, 2022. Authors may submit a full paper without first having submitted an abstract.

Submission of abstracts (300–500 words in length)	March 15, 2022
Notification of editorial feedback on abstracts	April 15, 2022
Submission of manuscript	July 15, 2022

2. **CALL FOR NEWSLETTER CONTENT:** ASEE BED Bi-monthly Newsletter

As of 2021, the ASEE BED has started to share a bi-monthly newsletter with the community. We share general resources, BME Education Resources for Students and Faculty, Upcoming Positions, Engineering Education Research Resources. Information will be shared in consecutive emails. If you have information to share with the community, please send your announcement to the BED listserv, as a 2-3 paragraph description including any relevant URLs and contact info as well as a subject line. Do not include any attachments. Be sure that the announcement includes the person to contact with questions. Email all of this information to Aileen Huang-Saad at [a.huang-saad@northeastern.edu](mailto:a.huang-saad@northeastern.edu) with [BED Announcement] in the subject line to facilitate email sorting. Announcements will be sent out on the 1st and 15th of each month. Each set of announcements will be included in the announcements email twice. Announcements will also be recorded on the

BED website (<https://sites.asee.org/bed/>) and HUB (<https://aseehub.asee.org/groups/home/34#active-group-members>).

### **3. CALL FOR PARTICIPATION: ASEE Industry 4.0 Workforce Summit, Omni Shoreham Hotel in Washington DC, April 25-26, 2022**

The ASEE Industry 4.0 Workforce Summit, an in-person event at the Omni Shoreham Hotel in Washington DC, April 25-26, 2022, is fast approaching! Register now!

<https://workforcesummit.asee.org/>

The Summit will convene key stakeholders from industry, education, and public policy to forge a new vision, action plans, and partnerships to accelerate innovation in engineering education and workforce training for Industry 4.0.

Keynote speakers at this event will include:

- Dr. Victor McCrary, Vice Chair of the National Science Board
- Dr. Darryll Pines, President of the University of Maryland
- Barbara Humpton, CEO of Siemens USA, and
- Dr. Gregory Washington, President of George Mason University

Panel sessions will feature senior leaders from industry (GM, Microsoft, NI, Autodesk, Siemens USA), accrediting bodies (ABET, National Coalition of Certification Centers), federal agencies (NSF, DOD) and public-private partnerships (Greater Washington Alliance, CESMII/The Smart Manufacturing Institute).

April 2022 is just the beginning! The ASEE Industry 4.0 Workforce Summit is building the coalitions and alliances that will drive the systematic change needed to transform the preparation of engineers and skilled technical workers.

#### **4. CALL FOR PARTICIPATION: Engineering Faculty Supporting Undergraduate Mental Health**

We are working to enhance our understanding of how undergraduate engineering students experience stress. Our project is focused on gaining a better understanding of how a culture of stress develops and is perpetuated in engineering programs. We will use this knowledge to develop resources and communities that can dismantle this culture and promote student wellbeing. Specifically, we are seeking information on how engineering faculty and staff perceive undergraduate engineering culture, particularly with regard to norms around stress and mental health.

We are seeking engineering faculty and staff who work with undergraduate engineering students. Participants will complete a 30–60-minute virtual interview via Zoom sharing experiences working with undergraduate engineering students. The interview will be used to improve student support systems and faculty training. Upon completion, participants will receive a \$50 Amazon gift card.

If you are interested in participating in this study, please contact Eileen Johnson at [emjohns4@illinois.edu](mailto:emjohns4@illinois.edu).

**6. CALL FOR PARTICIPATION:** ASEE 2022 House is now Open

This year's ASEE2022 will be in Minneapolis, Minnesota. Housing is now available -- check out [Hotel Accomodation \(asee.org\)](http://www.asee.org)

***BME Education Resources for You***

- 1. FUNDING OPPORTUNITY:** NIH Team-Based Design in Biomedical Engineering Education  
<https://grants.nih.gov/grants/guide/pa-files/PAR-22-000.html>

***Position Announcements***

- 1. POSITION ANNOUNCEMENTS:** Multiple education postdoctoral positions in the Biomedical Engineering Department at Georgia Tech

The BME department at Georgia Tech is working to hire three postdoctoral fellows as soon as possible. Interested candidates can reach out to Joe Le Doux ([joseph.ledoux@bme.gatech.edu](mailto:joseph.ledoux@bme.gatech.edu)) or Todd Fernandez ([Todd.Fernandez@bme.gatech.edu](mailto:Todd.Fernandez@bme.gatech.edu)) for more information or to submit an application.

***KEEN Postdoc in faculty development***

Postdoctoral position in engineering faculty development and/or learning sciences. The Georgia Tech Biomedical Engineering Department is hiring a postdoctoral fellow with a background and/or interest in faculty development. Specifically, this fellow will be leading the design, implementation, and assessment of faculty development as part of a large curricular change grant in the GT College of Engineering. The grant supports work to change engineering curriculum and teaching in ways that embrace the power of personal narratives to help students develop a clearer sense of themselves, foster empathy for who they are designing for, and improve their ability to communicate with others. This postdoctoral fellow will focus on research and implementation of faculty development. We expect work will focus on the analysis of faculty's needs to succeed in curricular change efforts as well as developing programming to meet those needs. A secondary focus will be to assess the outcome of that development work as well as gathering data on how faculty perceive students, how they approach education, and how they understand the concepts at the center of the grant. The Georgia Tech KEEN grant involves four departments within the college of engineering (Aerospace Engineering, Biomedical Engineering, Civil and Environmental Engineering, Create-X). The Biomedical Engineering (BME) department serves a coordinating and leadership role for this project. *Qualifications:* PhD in learning sciences, engineering education, or a related field. The ideal candidate should have demonstrated the ability to work with faculty as well as the ability to take research from ideation to publication. Preference will be given to candidates with prior experience in designing and/or implementing teaching and learning interventions in higher education. In addition to specific disciplinary knowledge and skill competencies, successful applicants will have demonstrated experience in one or more of the following areas: curricula change, faculty

development, student development, and/or engineering education research. We are also looking for those with a track record of academic publications, and excellent oral and written communications skills. Consistent with our program scope, we are especially interested in candidates who show promise to engage intellectually in teaching across diverse engineering disciplines. The postdoc will receive mentoring, career development training, and professional opportunities, in alignment with a personal career development plan.

***KEEN Postdoc in learning sciences / theory development***

Postdoctoral position in the use of narratives in engineering education pedagogy starting as soon as possible. This role will focus on learning sciences analysis of novel pedagogies. The key responsibility will be documenting and disseminating key research work on the theoretical foundations of story-driven learning and its contribution to engineering students' entrepreneurial mindset and entrepreneurial self-concept. That includes the development of a learning sciences / conjecture based models of a novel/developmental pedagogy we are referring to as *Story-Driven Learning*. It will primarily focus on developing and executing a research agenda to study the impact that pedagogical changes have on students. The role necessitates comfort with both qualitative and quantitative educational research methods. It will include the development and utilization of measurement appropriate instruments as well as interviewing and observation. A background in either learning sciences or identity theory will likely be appropriate. Prior experience with formal literature reviews, conjecture mapping, design-based research, and associated publication techniques would also be beneficial. The Georgia Tech KEEN grant involves four departments within the college of engineering (Aerospace Engineering, Biomedical Engineering, Civil and Environmental Engineering, Create-X). The Biomedical Engineering (BME) department serves a coordinating and leadership role for this project. *Qualifications:* Applications are welcome from recipients of a PhD in educational psychology, learning science, engineering education, or a related field. Academic and/or professional experience related to the above research areas is strongly preferred. The ideal candidate should have demonstrated the ability to perform work with faculty in studying classroom settings as well as the ability to take research from ideation to publication. Preference will be given to candidates with prior experience in designing and/or implementing teaching and learning interventions in higher education, particularly if these experiences involved Entrepreneurial Mindset, Narrative Construction, and/or Engineering Education. We are also looking for those with a track record of academic publications, excellent oral and written communications skills, experience working on large scale grants, and implementation-based research projects. The ability to work independently to develop and drive a research agenda without disciplinary support will also be critical.

***RED Postdoc on inculcating inclusion into biomedical engineering***

The Georgia Tech Biomedical Engineering Department is seeking to hire a Post-doctoral Fellow to join a multidisciplinary team implementing revolutionary change in engineering education practices. Our vision is to educate inclusive engineers who understand that a diverse workforce finds and solves new and compelling problems, and who have the skills and disposition to seek out, form, and thrive on diverse and inclusive teams. To achieve our vision, the Fellow will work collectively with curricular faculty and students to create a curriculum that seamlessly interweaves inclusive concepts and practices with technical content at multiple social scales. The Fellow will contribute to a research program that seeks to answer the following research questions: 1) how can inclusion-promoting interventions be sustainably integrated into the curriculum, 2) how do the curriculum modifications impact students' interpersonal skills and

understanding of inclusive engineering design practices, and 3) what system and structural changes are effective in supporting organizational change? We are seeking a candidate who has a strong record of designing and executing qualitative studies. Qualitative interviewing, participant observation, state-of-the-art analytic techniques and code book development are the essential tools we seek. The Fellow will also have the opportunity to recruit and mentor a team of undergraduate research assistants. Essential Duties and Responsibilities:

- Conduct literature reviews, present briefs, and organize resources.
- Plan and conduct qualitative research projects autonomously while working collaboratively with the Co-PIs and project staff.
- Participate in project related meetings as needed.
- Help develop and evaluate scalable and transferrable educational interventions.
- Present findings at conferences, workshops, and stakeholder meetings.
- Publish articles in peer-reviewed journals.
- Perform other related duties as needed.

*Qualifications:* PhD in social psychology, clinical psychology, community psychology, organizational psychology, organizational behavior, organizational justice, sociology, organizational change, engineering education, ethnography, or related fields. The ideal candidate should have demonstrated ability to perform both quantitative and qualitative analysis, although our primary need is qualitative.

## 2. **POSITION ANNOUNCEMENT:** Multiple Adjunct Faculty, Stevenson University

The Biomedical Engineering program at Stevenson University is looking for multiple adjunct faculty members to join our program for Fall 2022. In particular, we are looking for people interested and capable of teaching courses in systems physiology, current topics in biomedical engineering (e.g., surgical/assistive robotics, tissue engineering, or medical imaging), or capstone design. They can find more information here: <https://stevenson.peopleadmin.com/postings/7121> or by contacting me directly at [nrothman@stevenson.edu](mailto:nrothman@stevenson.edu). Please share with alumni or others in Baltimore, MD area who may be interested.

## 3. **POSITION ANNOUNCEMENT:** Department Head of Biomedical Engineering at the University of Arizona

The Department of Biomedical Engineering (BME) at the University of Arizona is seeking nominations and applications for a department head with excellent leadership skills and enthusiasm for world class research, innovative teaching, and collaborations with industry, government, community, and clinical partners. The University of Arizona, a Research I, Land-grant, and Hispanic Serving institution, ranks in the top 4% of all US Institutions, with more than \$734 million in annual research expenditures, according to data from the National Science Foundation. The annual research expenditures for the department exceed \$3 million. The BME Department Head, who reports to the College of Engineering dean, should be a visionary who can lead a diverse group of faculty, staff and students; oversee modern educational research laboratories and facilities; and, most importantly, spearhead the continuing transformation of BME for the challenges of the 21<sup>st</sup> century.

Successful candidates are expected to have extensive research and teaching experience at a level sufficient to qualify for appointment as a tenured Full Professor. The BME Department at the University of Arizona has a strong local, national, and international reputation for undergraduate and graduate education and research. The department has 21 tenured or tenure track faculty, 2 career track faculty, and 32 joint faculty that support teaching, research, and service missions. The department has more than 170 undergraduate (sophomore-senior), a total of 31 M.S students, and 42 Ph.D. students enrolled. Undergraduate research is a major emphasis of the BME Department as almost 90% of our undergraduate students are placed in research labs and nearly 30% go on to graduate school.

Link to the position

posting: <https://arizona.csod.com/ux/ats/careersite/4/home/requisition/8129?c=arizona>

Contact person: Sammy Tin, Department Head, Materials Science and Engineering, [tin@arizona.edu](mailto:tin@arizona.edu)

4. **POSITION ANNOUNCEMENT:** First year Engineering at University of Tennessee

The Engineering Fundamentals Program (EFP) at the University of Tennessee, Knoxville, seeks a dynamic and innovative Lecturer to contribute to its first-year engineering program. EFP is the home of the engage program, an integrated and team-taught first-year curriculum and is responsible for teaching nine credit hours of common coursework for each of the College's first year students (1000 per year). Subject matters taught include:

- Introduction to engineering physics
- Perspectives of the engineering profession
- Teaming
- Engineering design process
- Engineering technical communication
- Computing tools for numerical analysis
- Student success related topics (time management, study skills, etc)
- Leadership training for student mentors

Details of the Engineering Fundamentals Program are available at <https://engage.utk.edu/>.

This position is a full-time, non-tenure-track, 9-month appointment. Candidates are expected to have an earned doctorate in engineering or computer science with an undergraduate degree in any engineering or computer science field; strongly preferred are candidates with a doctorate in electrical, computer engineering, robotics/mechatronics, computer science or engineering education. Candidates must possess excellent communication skills, a solid commitment to innovative teaching methods, both traditional and technology enabled, and the ability to contribute in meaningful ways to the diversity and intercultural goals of the University. Demonstrated interest in engineering and computing education programs is expected. College-level teaching experience is preferred.

Find additional details and apply at: <https://apply.interfolio.com/102199>

5. **POSITION ANNOUNCEMENT:** Assistant/Associate/Full Teaching Professor - Bioengineering, Northeastern University (Boston Campus)

Northeastern University invites applications for full-time, non-tenure track teaching faculty in the field of Bioengineering on the Boston campus. We seek individuals with a passion to support high-quality teaching and maintain the highest instructional standards through preparation of lectures and laboratory exercises based on course materials provided; effective facilitation of rich, respectful debates and discussions in an in-person or hybrid class; timely review and grading of assignments with appropriate coaching and feedback to the students; consistent connection with students and their performance; adherence to Northeastern's policies. Apply [here](#)

***Engineering Education Research Resources***

**1. REVIEWING PAPERS: [JEE Mentored Reviewer Program](#)**

To send an announcement to the BED listserv, please prepare a 2-3 paragraph description including any relevant URLs and contact info as well as a subject line. ***Do not include any attachments.*** Be sure that the announcement includes the person to contact with questions. Email all of this information to Aileen Huang-Saad at [a.huang-saad@northeastern.edu](mailto:a.huang-saad@northeastern.edu) with **[BED Announcement]** in the subject line to facilitate email sorting. Announcements will be sent out on the 1st and 15th of each month. ***Each set of announcements will be included in the announcements email twice.*** Announcements will also be recorded on the BED website (<https://sites.asee.org/bed/>) and HUB (<https://aseehub.asee.org/groups/home/34#active-group-members>).

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