



ASEE ANNUAL REPORT

OCTOBER 2018 – SEPTEMBER 2019



Stephanie Farrell
Stephanie Farrell
 ASEE President 2018–2019



Norman L. Fortenberry
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 ASEE Executive Director

ASEE MEMBERS

We are honored to be writing to you as ASEE moves ahead on its journey of another (we hope!) 125 years.

In June 2019, ASEE closed out a year-long celebration of our first 125 years—our quasiquintennial—during which we examined our past in celebration and anticipated our future with plans and goals for staying relevant for you, our members, for decades to come.

Part of changing and adapting our Society, of course, is focusing on diversity and welcoming *all* people into ASEE. Looking beyond traditional notions of diversity is critical, and one area of focus this year was a group of people we refer to as “professional track” faculty, though they have recently been more commonly called “non-tenure-track faculty.” This term stems from what is called “deficit thinking,” or being defined by what you are not instead of what you are. ASEE wants to recognize these teaching-focused faculty for the expertise they bring and the contributions they make to educating our students.

Professional-track faculty comprise a significant percentage of the faculty in engineering and engineering technology programs and they teach a growing share of courses in the curriculum. ASEE continues to explore what models work best in managing and embracing these faculty members by creating best practices. The Monday keynote speaker at the 2019 annual conference was Dr. Emily Boyd, who focused on this topic.

On the topic of diversity, in this report you’ll find information about ongoing developments in this area. Co-located with the Engineering Deans Institute in 2019 was the Engineering Deans Gender Equity meeting, a project that seeks to reduce barriers to effective recruitment, retention, and advancement of women engineering faculty. Further, we launched the ASEE Diversity Recognition Program to publicly recognize those engineering and engineering technology colleges that make significant, measurable progress in increasing the diversity, inclusion, and degree attainment outcomes of their programs. Recognition occurs at three levels—bronze, silver, and gold—and more than 70 institutions were recognized in year one.

The Board of Directors continued its effort of long-range strategic planning this year. ASEE’s objectives are clear and direct: Communication and Communities; Innovation and Excellence; Access, Diversity, and Inclusion; Advocacy and Public Policy; and Financial Sustainability and Internal Organization. With these goals in mind, the Board held numerous strategic planning sessions last year as we honed our focus under these objectives.

The education of future engineering professionals is changing quickly—whether it’s the evolving characteristics of incoming student cohorts, instructional technology, or the new and challenging needs of employers, ASEE must remain nimble to meet the needs of our members and our community. With numerous constituent groups among our members, we are working hard to lead ASEE in a direction that benefits all.

We hope you will take some time to review the highlights of the past year.

“ASEE’S OBJECTIVES ARE CLEAR AND DIRECT: COMMUNICATION AND COMMUNITIES; INNOVATION AND EXCELLENCE; ACCESS, DIVERSITY, AND INCLUSION; ADVOCACY AND PUBLIC POLICY; AND FINANCIAL SUSTAINABILITY AND INTERNAL ORGANIZATION.”

NEW ASEE FELLOWS

Lisa C. Benson
 Clemson University

Angela R. Bielefeldt
 University of Colorado-Boulder

Lisa G. Bullard
 North Carolina State University

Ann D. Christy
 Ohio State University

Milo Koretsky
 Oregon State University

Ann F. McKenna
 Arizona State University

John L. Falconer
 University of Colorado-Boulder

Joseph R. Herkert
 North Carolina State University

Julie P. Martin
 Clemson University



2019 SOCIETY AWARDS

ASEE PRESIDENT'S AWARD

Purdue INSPIRE–
Engineering Gift Guide

BENJAMIN GARVER LAMME AWARD

H. Vincent Poor
Princeton University

CHESTER F. CARLSON AWARD

Matthew W. Ohland
Purdue University

CLEMENT J. FREUND AWARD

Patricia D. Bazrod
Georgia Institute of
Technology

DUPONT MINORITIES IN ENGINEERING AWARD

Sylvanus N. Wosu
University of Pittsburgh

FREDRICK J. BERGER AWARD

Keith V. Johnson
East Tennessee State
University

ISADORE T. DAVIS AWARD

Joseph J. Rencis
California State Polytechnic
University–Pomona

JAMES H. MCGRAW AWARD

Kenneth Burbank
Purdue University

JOHN L. IMHOFF AWARD

Jayant Rajgopal
University of Pittsburgh

LIFETIME ACHIEVEMENT AWARD

K. L. DeVries
University of Utah

NATIONAL OUTSTANDING TEACHING AWARD

Mark M. Budnik
Valparaiso University

ROBERT G. QUINN AWARD

Daniel B. Oerther
Missouri University of Science
& Technology

SHARON KEILLOR AWARD

Jenna P. Carpenter
Campbell University

WILLIAM ELGIN WICKENDEN AWARD

Stephen Secules
Purdue University

Ayush Gupta
University of Maryland-
College Park

Andrew Elby
University of Maryland-
College Park

Chandra Turpen
University of Maryland-
College Park

INTERNATIONAL ACTIVITIES

The Global Forum at the 2019 ASEE Annual Conference had the theme “Engineering Education Reform Towards Active Learning.” Krishna Vedula, executive director of the Indo Universal Collaboration for Engineering Education, delivered the luncheon keynote and chaired a panel of five experts representing four continents.

ASEE members and leaders traveled widely this year. Several staff and members attended the World Engineering Education Forum–Global Engineering Deans Council meetings in Albuquerque, N.M., in November 2018. In addition, we sent leadership delegations to conferences in China, Hungary, Jamaica, Japan, and Nigeria.

ASEE proudly launched the ASEE Specialist program this year, a response to growing requests for American expertise from international partners. This program connects ASEE members with international colleagues seeking aid with pedagogical and/or technical training for faculty, as well as curriculum and program development. The program has received nearly 100 applicants and growing interest has led us to offer it to U.S.-based institutions as well.



POLICY ENGAGEMENT

Funding and political support for engineering, engineering technology, and engineering education research is important to most ASEE members. In addition, ASEE and its members are concerned with policies that further the technological literacy of Americans. ASEE leverages partnerships inside and outside of Washington, D.C., to maintain our influence and further the interests of our members. These partners include Lewis-Burke Associates LLC, our government relations firm; the STEM Education Coalition; the Alliance for Science and Technology Research in America; and the Coalition for National Science Funding.

In 2019, ASEE's annual Public Policy Colloquium of engineering deans brought almost 200 participants to Washington for a two-day event of briefings on the federal landscape as it relates to STEM funding and support. The event culminated with trips to Capitol Hill to hear from members of Congress and to meet with representatives.

The Engineering Technology Council now uses its annual meeting, the Engineering Technology Leaders Institute, as an opportunity for policy discussion. The October 2018 meeting, “Engineering Technology Leaders: Expanding the Brand,” explored how engineering technology, at its 50-year anniversary, can look forward to its next 50 years. ETLI participants visited their congressional representatives as part of this meeting. The event also included a presentation from Victor McCrary of the National Science Board.

“ASEE LEVERAGES PARTNERSHIPS INSIDE AND OUTSIDE OF WASHINGTON, D.C., TO MAINTAIN OUR INFLUENCE AND FURTHER THE INTERESTS OF OUR MEMBERS.”



DIVERSITY, EQUITY, AND INCLUSION

ASEE, with support from our Engineering Deans and Engineering Technology councils, launched the ASEE Diversity Recognition Program (ADRP) to publicly recognize those engineering and engineering technology colleges that make significant, measurable progress in increasing the diversity, inclusion, and degree attainment outcomes of their programs. We recognize institutions at the bronze, silver, and gold levels, with only bronze achievable in this initial year. See the list of institutions on this page that achieved the bronze level this year.

For the second year, ASEE's Minorities in Engineering and Women in Engineering divisions joined in a collaborative effort of the National Association of Multicultural Engineering Program Advocates (NAMEPA) and the Women in Engineering Proactive Network (WEPAN) to host the CoNECD Conference. CoNECD (Collaborative Network for Engineering and Computing Diversity) is the only event that explores current research and practices to enhance diversity and inclusion of all underrepresented populations in the engineering and computing professions. CoNECD includes women, individuals of diverse racial, ethnic, and socioeconomic backgrounds as well as varied gender identities and expressions, the LGBTQ+ community, people with disabilities, veterans, and first-generation college students.

Featuring a new logo and website, the ASEE's LGBTQ+ in STEM Advocacy project has reached important milestones: 1,100 participants in Safe Zone Ally training workshops (via more than 10 online and 60 face-to-face workshops), a second NSF award, and additional support by Chevron to offer Safe Zone training sessions at zone and section meetings. Our online community of practice for allies and advocates continues to grow, and we are currently developing an advocacy toolkit for academic administrators.

DIVERSITY AWARD RECIPIENTS

Auburn University	Rochester Institute of Technology	University of Georgia
Boise State University	Rowan University	University of Houston
Boston University	Rutgers University	University of Idaho
California Polytechnic State University-San Luis Obispo	San Diego State University	University of Illinois-Urbana-Champaign
Campbell University	Stevens Institute of Technology	University of Kansas
Carnegie Mellon University	Stony Brook University	University of Kentucky
City College of New York	Texas A&M University	University of Maryland-Baltimore County
Drexel University	The College of New Jersey	University of Maryland-College Park
Duke University	University of California-Berkeley	University of Missouri
Florida A&M University-FSU	University of California-Davis	University of Nebraska-Lincoln
Georgia Institute of Technology	University of California-Irvine	University of New Mexico
Grand Valley State University	University of California-Merced	University of Rochester
Harvard University	University of California-Santa Cruz	University of South Florida
Indiana University-Purdue University-Indianapolis	University of California-Los Angeles	University of Southern California
James Madison University	University of Massachusetts-Amherst	University of Tennessee-Knoxville
Johns Hopkins University	University of Massachusetts-Dartmouth	University of Texas-Tyler
Lafayette College	University of Massachusetts-Lowell	University of the Pacific
Michigan State University	University of Arizona	University of Toledo
Mississippi State University	University of Bridgeport	University of Vermont
Missouri University of Science & Technology	University of Buffalo	University of Virginia
North Carolina State University	University of Colorado-Boulder	University of Washington
Northeastern University	University of Dayton	Villanova University
Oklahoma State University	University of Florida	Virginia Commonwealth University
Oregon State University		Virginia Tech
Rice University		Washington State University
		Wright State University
		West Virginia University



“ASEE IS CONSULTING WITH ACADEMIC LEADERS AND INSTITUTIONAL RESEARCH OFFICES ON THE REDESIGN OF OUR NATIONAL SURVEY PLATFORMS AND DATA MINING TOOL.”

EXPANDING ENGAGEMENT

ASEE has produced several webinars on topics such as student success, inclusive teaching, and research impact. Registration and attendance have been increasing, reaching individual benchmarks of 200-plus registrants and 100 attendees. As our library of webinars grows, we will revise our strategies to market “on-demand webinars,” highlighting value for ASEE members. We will also explore opportunities to feature ASEE products and services in future webinars, and we will soon offer a webinar on salary negotiations, featuring the results of our salary survey.

Tau Alpha Pi, the honor society for engineering technology, is administered by ASEE headquarters. Last year, it inducted 365 new members and restarted five chapters that had been previously inactive. It is currently undergoing a restructuring of its activities with an increased emphasis on participation and service among its members.

DATA ANALYTICS AND INSTITUTIONAL RESEARCH

ASEE is the premier source of information for industry, academic, and government leaders who need to know what the potential engineering and engineering technology workforce looks like today and could be tomorrow. ASEE data:

- help our industry partners identify new recruits for employment and areas where the graduating workforce can support new technological expansion;
- give institutional leaders the tools to show government stakeholders progress and identify new targets of opportunity; and
- enable local, state, and federal decision makers to make sound judgments in developing the current and future engineering workforce.



JOURNAL OF ENGINEERING EDUCATION (JEE)

Cultivating, disseminating, and archiving quality research in ways that reflect the diversity of experiences and perspectives of the engineering education community is at the core of what ASEE is about. This is also the mission of ASEE's *Journal of Engineering Education*. The *Journal* is widely recognized as the premier publication for scholarly research on engineering education. Published quarterly through John Wiley & Sons, the *Journal* receives about 300 new submissions annually from authors in more than 40 countries. The *Journal* has an international editorial board that coordinates the peer review process. Under the editorship of Lisa Benson, the College of Engineering, Computing, and Applied Sciences and the Department of Engineering and Science Education at Clemson University have provided generous support of the *Journal*. During the past 12 months, the *Journal* has published articles on best practices in mentoring and training engineering graduate teaching assistants; the challenges faced by engineering professionals who return for advanced study after significant time in the workforce; a new survey tool that can help understand key factors to student success, support, and integration into engineering programs; and how interdisciplinary approaches and biosensors can help gauge student engagement in the engineering classroom. Summaries of these and other articles have appeared as "JEE Selects" columns in ASEE's *Prism* magazine. These summaries show how research can inform the practice of educating a diverse population of students to become the next generation of leaders in engineering. The *Journal* launched new initiatives this year to expand its reviewer and author base, including a Star Reviewer program and networking and workshops at international conferences to identify and train new reviewers and authors.



ADVANCES IN ENGINEERING EDUCATION (AEE)

Documenting and disseminating true "advances" informed by research in engineering education practices and pedagogy is the purpose of the peer-reviewed *Advances in Engineering Education*. In that way, *AEE* focuses on the implementation of research results, rather than the research itself. Of particular uniqueness to *AEE* is that authors are encouraged to submit papers incorporating the creative use of media, including animation, audio, graphics, and video. This marked *AEE*'s eighth year; the journal has received more than 1,000 submissions, with an acceptance rate of 25 percent and an increasing number of submissions from overseas. Two issues of the journal were published this year with a total of 22 papers. The papers covered a wide range of topics focusing on relevant learning experiences from freshman to graduate student. The Fall issue featured a set of papers on the entrepreneurial mindset. The Spring issue addressed a variety of subjects including project-based learning, online videos, and asynchronous peer-to-peer learning. Upcoming issues will feature the midyears' education experience, engineering ethics, social entrepreneurship, and most innovative engineering programs.

COMMUNICATING FOR THE COMMUNITY

ASEE's Art and Editorial departments continue their successful collaboration in the Society's standout magazine, *Prism*, the voice for the engineering education community.

Prism won numerous awards this year, including:

APEX

Publication Excellence – Writing – "The Mind's Eye"

Publication Excellence – Writing – "The Last Straw"

Association Trends

All Media Contest – Commemoration/Tribute, 125th Anniversary Issue

Communicator Awards

Award of Excellence for Writing for "Slow to Bite" and "Young Pacesetters"

Award of Distinction for Design Features/Overall Design for "Faster, Smarter, Lighter"

Award of Distinction for Employee Publication-Magazine for the October 2018 Issue

The ASEE Art department keeps ASEE's branding and messaging on point through its work on branding and logos for events and meetings; on-site displays; social media campaigns; program design and layout; and marketing materials, among other products our members see, read, and interact with.

COMMUNICATORS CONFERENCE

In July 2019, ASEE held its second annual Engineering Communicators Conference, convening over 100 communications professionals from colleges of engineering and engineering technology around the country. This event is the only one of its kind for communicators and, over two days, covered topics including effectively using social media, considering diversity in communications products, and dealing with the media. The community-building from this event has laid the groundwork for the creation of a new constituent committee for engineering communicators within ASEE.



ANNUAL CONFERENCE

ASEE's showcase event and gathering place for 4,000 community members is our annual conference, held in steamy Tampa in 2019. In the "lightning capital of the world," we were Charged Up for the Next 125 Years, noting the closing of our year-long anniversary celebration and looking forward to what is next for ASEE. Among the highlights of the conference were:

- TWO GREAT PLENARY SPEAKERS, ONE OF WHOM ADDRESSED PROFESSIONAL-TRACK FACULTY AND THE OTHER TELLING HER STORY OF OVERCOMING OBSTACLES ON HER WAY TO BECOMING A CEO
- A WELCOME FROM TAMPA MAYOR, JANE CASTOR
- PRESENTING OUR STUDENT VIDEO-CONTEST WINNERS
- THE TASTE OF TAMPA, FEATURING A VARIETY OF LOCAL CULINARY DELIGHTS
- THE ANNUAL COMMUNITY ENGAGEMENT DIVISION OUTREACH ACTIVITY, THIS YEAR AT A LOCAL MIDDLE SCHOOL
- NUMEROUS SOCIAL EVENTS, INCLUDING OUR POPULAR DIVISION MIXER
- CEREMONIES FOR OUR SOCIETY AWARD WINNERS AND FELLOWS
- SUNRISE YOGA AND OTHER GROUP PHYSICAL ACTIVITIES



