

ASEE Diversity



A newsletter of the ASEE Diversity Committee

Edited by Sriram Sundararajan

A Semi-Annual Newsletter

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Best diversity paper award

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BEST DIVERSITY PAPER AWARD

The call for nominations for the best paper went out in early 2017 and sought to identify highly impactful efforts by ASEE authors that broaden participation and influence the inclusive, diverse future of engineering. Papers from the 2017 Annual Conference as well as papers published within any section/zone conference proceedings between May 1, 2016 and April 30, 2017 were eligible.

Nominated diversity papers were assessed for novelty of approaches, ideas, interventions, extent of inclusivity, and

demonstrated magnitude of impact. This year the committee received 16 nominations.

The Best Diversity Paper rubric (<http://diversity.asee.org/DiversityPaperRubric>) was utilized by a selection committee to assess scholarship attributes of the manuscript and determine the finalists. This year, the committee identified 5 finalists (listed below) who presented their work at the Best Diversity Paper Session during the Annual Conference (Session ID: M475A). Committee

members then judged the presentations and identified the winning paper.

This year's winning paper is titled *'The Inequality of LGBTQ Students in U.S. Engineering Education: Report on a Study of Eight Engineering Programs'* by Dr. Erin Cech (University of Michigan) and her co-authors.

Please join us in congratulating them and the other finalists whose work positively impact diversity and inclusion in engineering education!

Paper Title	Division/Zone
Mobile Aerospace Education Lab (m-AEL): A NASA Supported K-12 "Roadshow-In-A-Box" Initiative to Advance Aviation/ Aerospace Education in Underserved Counties by Dr. Kuldeep S. Rawat (Elizabeth City State University), Dr. Ellis Eugene Lawrence (Elizabeth City State University), and Cmdr. Orestes Devino Gooden (Elizabeth City State University)	Aerospace Division
Climate Control: Gender and Racial Bias in Engineering? by Dr. Su Li (U. C. Hastings, College of the Law), Dr. Roberta Rincon (Society of Women Engineers), and Prof. Joan Chalmers Williams (University of California, Hastings College of the Law)	ASEE Diversity Committee
Closing the Gap: Using Supplemental Instruction as a Tool to Assist Minorities in Engineering by Lt. James Blake Gegenheimer (Louisiana State University STEP), Mr. Charles Algeo Wilson IV (Louisiana State University), Adrienne Steele (Louisiana State University), and Dr. Warren N. Waggenspack Jr. (Louisiana State University)	Student Division
Calculus Reform - Increasing STEM Retention and Post-Requisite Course Success While Closing the Retention Gap for Women and Underrepresented Minority Students by Dr. Doug Bullock (Boise State University), Dr. Janet Callahan (Boise State University), and Ms. Jocelyn B. S. Cullers (Boise State University)	Mathematics Division
(WINNER) The Inequality of LGBTQ Students in U.S. Engineering Education: Report on a Study of Eight Engineering Programs by Dr. Erin A. Cech (University of Michigan), Prof. Tom J. Waidzunus (Temple University), and Dr. Stephanie Farrell (Rowan University)	Liberal Education/ Engineering & Society Division

GOALS AND PRIORITIES FOR THE COMMITTEE

Message from the Committee Chair, Eric Specking



The ASEE Diversity Committee is making great strides to improve diversity, equity, and inclusion efforts in engineering and is committed to helping ASEE foster environments where every individual is welcomed, respected, and valued. We recognize that while this environment is improving, substantial progress is still needed.

This need for improvement was the focus of goal and priority setting for the next few years. In August 2017, our Incoming-Chair Becky Bates and I created the following goals:

- Maintain all current initiatives (paper program, conference pavilion, ASEE Best Diversity Paper, Student Essay/Video Competition, etc.);
- Develop operational procedures to ensure a more sustainable organization structure;
- Align sub-committee activities and new initiatives with the ASEE Diversity Committee Strategic Plan;
- Align the ASEE Diversity Committee Strategic Plan with the ASEE's mission, vision, and strategic doing;
- Increase the number of diversity paper submissions;
- Increase committee member participation;
- Increase the number of ASEE Division delegates;
- Develop a more sustainable and helpful website; and
- Brand #ASEEIncludes.

A major part of this effort is to ensure the sustainability of the Diversity Committee and to align its mission with ASEE. In this process, we have identified the need to think about diversity, not in isolation, but together with equity and inclusion. We value the things that make us different, whether it is our geographic location, education level, fields of study, race, ethnicity, sexual identity, disability, etc., and recognize the value these differences bring. Society often focuses on these differences instead of using the diverse perspectives to better accomplish our goals. This is why equity and inclusion are needed. In this context, inclusion is making an environment where all of us, no matter our differences, can be successful. This environment must be developed in such a way that all can fully participate and contribute. Too many populations have been marginalized over the years, which creates exclusion, discrimination, bias, hostility, and severe barriers to participation. This marginalization has created unique needs and demonstrates the need to consider equity. The subtle difference between equality and equity is important. Equality assumes everyone has the same needs and that everyone starts at the same point. Equity helps provide the marginalized what they need to be successful. This is why when we discuss diversity, we must also discuss equity and inclusion. This is the motivation behind our request to the ASEE Board to change the ASEE Diversity Committee to the ASEE Committee on Diversity, Equity, and Inclusion.

We have a hard task ahead of us. To meet our goals, we first need to recognize our individual biases, and then we need to transcend our own thought processes to move past these biases and consider others. This is hard. It requires self-realization and altruism, but most importantly, it requires action. This is why ASEE started the ASEE Year of Action on Diversity in 2014. The work of the year of action continues. In 2018, we will face some of the same issues, while new issues will arise. We must continue to act and work together to ensure a better tomorrow. We have to be the voice for those who cannot speak for whatever reason.

So, I invite you to work with me and make every year a "Year of Action on Diversity" until the engineering environment and culture has been changed, and there isn't a need to have a Committee on Diversity, Equity, and Inclusion.

Sincerely,
Eric Specking
Chair, ASEE Diversity Committee

AN ENTREPRENEURIAL POSTDOCTORAL EXPERIENCE

The **Small Business Postdoctoral Research Diversity Fellowship** (SBPRDF) places recent Ph.D. recipients in designated active National Science Foundation (NSF) Phase II Small Business Innovation Research (SBIR) companies. The program helps Phase II SBIR companies by providing them with a postdoctoral fellow to accelerate their research while broadening the participation of under-represented groups such as women, African Americans, Hispanic Americans, Native Americans, and Hawaiian/Pacific Islanders in high-tech entrepreneurial research in a small business environment. This is one of the most interesting and unique fellowship programs offered by ASEE in that it provides an entrepreneurial experience that can translate into success in the professoriate or industry.

The selection process in this program is dynamic. Approved companies and qualified postdocs load profiles on the program website and then interact to determine appropriate fit. After a successful match, the company and fellow then develop a research and mentoring plan that will develop the technical and professional skills of the postdoc during their fellowship. Once the plan and application materials are complete, the postdoc appointment can begin.

The term of this fellowship is two years and pays an annual stipend of \$75,000, up to \$3,600 in relocation assistance, plus optional health insurance coverage. To be eligible for this fellowship applicants must have received a Ph.D., Sc.D., or other earned doctorate in a STEM-related discipline supported by the National Science Foundation in the last seven years. Proof of U.S. citizenship is required. For more information about the Small Business Postdoctoral Research Diversity Fellowship visit: <http://nsfsbir.asee.org> or contact Dr. Damon Tull, ASEE Director of Fellowships and Research Opportunities via email at d.tull@asee.org.

NOMINATE A COLLEAGUE FOR AN ASEE AWARD!

Please remember to think inclusion as you consider nominees for ALL ASEE awards.

<https://www.asee.org/member-resources/awards/full-list-of-awards>



UPCOMING DIVERSITY-FOCUSED CONFERENCES

[Understanding Interventions 2018](#)

March 2-March 4, 2018 • Lord Baltimore Hotel, Baltimore • Baltimore, Maryland, USA

[6th Annual Diversity Abroad Conference](#)

April 7-10, 2018 • Florida International University, Miami • Miami, Florida, USA

[Diversity in the Minerals, Metals, and Materials Professions 3 \(DMMM3\)](#)

July 23-24, 2018 • University of California, Santa Barbara • Santa Barbara, California, USA

2016-2017 Committee Members

The ASEE Diversity Committee is a standing committee reporting to the ASEE Board of Directors through the Chair. We meet monthly to identify, implement, and oversee the actions associated with the ASEE Diversity Strategic Plan. We welcome your feedback about diversity-related engineering education issues and topics. Please contact any of our committee members with your questions or concerns.

Chair

Eric Specking, especki@uark.edu
University of Arkansas

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Becky Bates, rebecca.bates@mnsu.edu
Minnesota State University, Mankato

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Corporate Member Council Representative

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Quinnipiac University

Diversity Committee Delegates

Ex-officio individuals from divisions/zones/sections that have dedicated diversity statements in their bylaws.

Aeronautics Division
Sharan Asundi
Northwestern University

Chemical Engineering Division
P. Arthur Felse
Northwestern University

Design in Engineering Division, Multidisciplinary Engineering Division
Olga Pierrakos
James Madison University

Educational Research and Methods Division
Julie P. Martin
Clemson University

Electrical and Computer Engineering
Hossein Mousavinezhad
Idaho State University

Engineering and Public Policy Division
James Ammons
Florida A&M University

Engineering Libraries Division
Rebecca Orozco
University of Kansas

Engineering Economy Division
Erick Jones
University of Texas at Arlington

Engineering Ethics Division
Jennifer Karlin

Industrial Engineering Division
Glenda Young
Virginia Tech

Liberal Education/Engineering & Society Division
Donna Riley
Virginia Tech

LGBTQ Inclusion
Brian Kirkmeyer
Miami University

Mathematics Division
Janet Callahan
Boise State University

Mechanical Engineering Division
Sriram Sundararajan
Iowa State University

Minorities in Engineering Division
Yvette Pearson Weatherton
Rice University

Pre-College Engineering Education Division
Morgan Hynes
Purdue University

Systems Engineering Division
Alice Squires
Washington State University

Student Division
Jessica Wilson
University of South Florida



Chairs

Eric Specking — Chair
Becky Bates — Vice Chair

Primary Point of Contact

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