

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 2016 and sought to identify highly impactful efforts by ASEE authors that broaden participation and influence the inclusive, diverse future of engineering. Papers from the 2016 Annual Conference as well as papers published within any section/zone conference proceedings between May 1, 2015 and April 30, 2016 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 6 finalists (listed below) who presented their work at the Best Diversity Paper Session during the Annual Conference (Session ID: 5625). Committee members then judged the

presentations and identified the winning paper.

This year's winning paper is titled 'Mapping Assets of Diverse Groups for Chemical Engineering Design Problem Framing Ability' by Dr. Vanessa Svihla (University of New Mexico) and her co-authors. As part of this honor they will be asked to present the paper at the 2017 annual conference during one of the large conference-wide plenaries.

Please join us in congratulating them on their work.

Paper Title	Division/Zone
Instructional Strategies for Incorporating Empathy in Transdisciplinary Technology Education by Dr. Colin M. Gray (Purdue University, West Lafayette), Luciana de Cresce El Debs (Purdue University, West Lafayette), Dr. Marisa Exter (Purdue University, West Lafayette), and Terri S. Krause (Purdue University)	Ethics
Where are They Now? Analyses of Alumnae Data by Dr. Andrea L Welker (Villanova University)	Civil Engineering
Turning Away from the Struggling Individual Student: An Account of the Cultural Construction of Engineering Ability in an Undergraduate Programming Class Mr. Stephen Douglas Secules (University of Maryland, College Park), Andrew Elby (University of Maryland, College Park), and Dr. Ayush Gupta (University of Maryland, College Park)	Educational Research and Methods
The Effect of Financial Support on Academic Achievement and Retention of Female Engineering Students Yang Lydia Yang Ph.D. (Kansas State University) and Bette Grauer Ph.D., P.E. (Kansas State University)	Women in Engineering
A Multi-Institutional Study of the Relationships between Nontraditional and Traditional Undergraduate Engineering Students by Ms. Tressa Kay Mikel (University of California, Berkeley), Mr. Frank Hoang (UC, Berkeley), Ms. Emi Okada (UC, Berkeley), Mr. Pedro S. H. Kim (UC Berkeley), Ms. Audrianna Rodriguez (University of New Haven), Dr. Maria-Isabel Carnasciali (University of New Haven), and Dr. Shannon Ciston (UC, Berkeley)	Pacific Southwest Section
(WINNER) Mapping Assets of Diverse Groups for Chemical Engineering Design Problem Framing Ability by Dr. Vanessa Svihla (University of New Mexico), Dr. Abhaya K. Datye (University of New Mexico), Dr. Jamie R Gomez (University of New Mexico), Victor Law (Program of Organization, Information, and Learning Sciences at University of New Mexico), and Ms. Sophia Bowers (University of New Mexico)	Chemical Engineering

DIVERSITY INITIATIVES BY THE ENGINEERING DEANS

by Yannis Yortsos

Following a session on Diversity at the 2015 Engineering Deans Institute (EDI) meeting, the EDI Diversity Committee proposed the initiation of a pledge to be signed by deans of participating engineering schools which will entail taking four specific steps to address Diversity and Inclusion in engineering higher education. The initiative was formally launched after the 2015 Annual ASEE conference in June 2015.

By August 4, 2015, the date of the Inclusive Entrepreneurship Summit at the White House, 102 engineering deans had signed the pledge. The initiative was highlighted at the Summit by US President Obama. The initiative continued throughout

the end of 2015 and continues to this date.

By June 19, 2016, the total number of deans who have signed on this initiative is 178, representing more than half the number of all engineering schools in the United States. This new accomplishment was highlighted at the Global Entrepreneurship Summit in June 22 in a release by the OSTP. ASEE is in the process of creating a website

ASEE's annual Engineering Deans Institute (EDI) provides an opportunity for engineering deans- and only deans- to gather and discuss the crucial issues facing their schools, colleges, and profession.

that will allow all participating engineering schools to highlight the efforts under way in implementing their pledge.

In parallel, a workshop on Changing the Face of Engineering- the African American Experience, in New Orleans on June 25-26, 2016, adjacent to the ASEE Annual Meeting, is producing a series of papers on methods to increase diversity and inclusion, which are likely to benefit the participating in the diversity pledge institutions. We plan to disseminate such methods to the community at large and to also post them on the ASEE website to help institutions with best practices at all levels, undergraduate students, graduate students and faculty.

AN ENTREPRENEURIAL POSTDOCTORAL EXPERIENCE

by Damon Tull, ASEE

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://nfsbir.asee.org> or contact Dr. Damon Tull, ASEE Director of Fellowships and Research Opportunities via email at d.tull@asee.org.



THE CONSIDERATION OF DIVERSITY AND INCLUSION IN ABET POLICY AND PROCESSES

by Kristen Constant and Emily Allen

The ABET Ad Hoc Committee on Diversity and Inclusion was formed in Fall 2015. Its charge from ABET leadership was to review and affirm or recommend revision to ABET’s policy on diversity and inclusion, to reconsider ABET’s role in supporting diverse learner populations within the broad range of ABET accredited programs and to make recommendations to the ABET Councils in this regard. The committee decided to gather input from stakeholders regarding the current ABET policy on diversity, as well as a larger question related to whether activities related to diversity and inclusion could or should be a consideration in the accreditation process.

Various committee members have hosted “listening sessions” at the following national conferences so far: Engineering Deans Institute, NSBE Dean’s Meeting, TMS, WEPAN, IEEE (on-line webinar), ABET Symposium, ASEE (3 sessions), IRI, SHPE Deans Summit and MS&T. Additional listening sessions are scheduled for the Fall 2016.

At the listening sessions, a committee member delivers a brief presentation which articulates (depending on the audience) the “state of diversity” in the workforce and educational institutions in the US, a definition of diversity and inclusion, as well as a brief tutorial on the structure and processes of ABET, and present the existing ABET diversity policy. The audience is then offered prompts to consider whether the policy needs revision, and how or whether ABET accreditation processes could or should consider diversity and inclusion issues.

An online survey is linked to the ABET homepage (abet.org) and to date has received responses from 200 people. Announcements about the survey were circulated through the committee, the three ABET Councils, the Engineering Deans Council, and through various ASEE divisional mailing lists.

ABET Ad-hoc Committee on Diversity

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NACME rep to Board
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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>



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.

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Diversity Committee Delegates

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

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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

Stephanie Farrell — Chair
Eric Specking — Vice Chair

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