

Dear DEED Members,

Ugh, it's February.

The intent of this newsletter is to inform the DEED community about upcoming events and related news in DEED, ASEE, and the engineering design community.

Newsletters are typically sent on the 15th of every month; submissions are welcome.

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1) ASEE 2016 Abstract Review Process

The DEED Executive Committee has put new criteria in place for submissions.

DEED is now a Present to Publish - AND - a Review to Publish division.

The peer review process depends on an active review community and this change helps keep that process healthy.

This means that to have your work reviewed, you MUST agree to review the work of others.

Refusing review duties or failure to submit reviews is grounds for rejection of work at both the abstract and paper submission stages.

This change was discussed, debated and implemented at the DEED business meeting.

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The biannual Capstone Design Conferences provide an opportunity for the engineering community to share ideas about starting and improving design-based capstone courses. See some of the ideas presented in the 2014 Capstone Design Conference in the latest IJEE special issue:

<http://www.ijee.ie/contents/c310615B.html>

Sign up for the capstone design conference mailing list to receive conference updates:

<http://capstonedesigncommunity.org/mailling-list>

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3) Revised ABET EAC Criteria !!!!!!!!!!!!!!!!!!!!!Virtual Conference Delegates Needed!!!!!!!!!!!!!!!!!!!!!!!!!!!!

The revised proposal of the Engineering Accreditation Commission to revise Criteria 3 and 5 has now been posted to the ABET website:

<http://www.abet.org/news/abet-releases-criteria-proposal-for-public-comment/>

ABET requests that this information be disseminated to relevant accreditation operating committees, department chairs/heads, groups and faculty members in ASEE for their review and comment. One method of providing comments is to use this electronic response form:

<https://www.surveymonkey.com/r/CRIT35R2>

Please take time to provide feedback on these new proposed criteria to ensure that the assessment community understands and respects the role of faculty in the engineering education process.

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If you would be interested in representing DEED at a virtual conference to help set the discussion parameters for the Town Hall scheduled for the conference in New Orleans, please send an email to: Susannah Howe, [showe@smith.edu](mailto:showe@smith.edu)

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Webinar Details - All are welcome !

Simplifying ABET EAC Accreditation Criteria: Did ABET go too far?

ASEE Webinars on Proposed ABET Engineering Accreditation Commission (EAC) Changes

Tuesday, February 16th, 4:30 PM EST (3:30 CST, 1:30 PST)  
Professor Rebecca Bates, Minnesota State University, Mankato, Host  
Friday, February 19th, 1:00 PM EST (2:00 CST, 12:00 PST)  
Professor R. Alan Cheville, Bucknell University, Host

Einstein has been attributed with saying “everything should be as simple as it can be, but not simpler.” The Engineering Accreditation Commission (EAC) of ABET is considering a proposal to “simplify” the criteria for accrediting engineering programs, with a decision coming in spring 2016. Should you care? Will the new criteria improve student learning? Will they be easier to assess? Will the changes produce better engineers? Time is short to consider the proposal and weigh in before the changes are finalized. In this webinar, you’ll get an overview of the proposal and ABET’s stated rationale for the change. We’ll then analyze the proposal and consider the benefits and disadvantages. Finally, you’ll learn how to learn more and how to make your voice heard.

This webinar is organized by the ASEE Ad Hoc Committee on ABET EAC Changes with thanks to Iowa State University for WebEx Hosting. No advance registration required.

INSTRUCTIONS TO JOIN THE WEBINAR

1. To join, go to <https://iowastate.webex.com> and enter meeting number 928 703 503
2. If this is your first WebEx, you will need to install the application when prompted. If you do not have administrative privileges on your computer, click the link to install the “One-Time Meeting Application” and you will have full functionality for this meeting.
3. Enter your name at the login prompt (e-mail is not necessary).
4. You can join, listen and participate in the conference by using your computer or telephone.
  - a. Press the “ Call Using Computer” button. This will join you to the conference and you will hear a beep confirming your entry.  
 You may test your speakers and microphone by selecting “More” when you hover over the three dots below the “Call Using Computer” button.  
 You will be automatically muted when you join the audio conference.
  - b. The telephone option is available by pressing the three dots below the “Call Using Computer” button, where “More” options are presented.  
 “Call Me” or “I Will Call In”. Just follow the prompts.

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This will be discussed at the Town Hall meeting sponsored by the Ad Hoc Committee on Interdivisional Cooperation at ASEE 2016 New Orleans. See you there!

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4) DEED Bylaws changes - Voting Results

The DEED bylaws have been modified to agree with ASEE recommended practice, to reflect the new financial reality at ASEE and to incorporate some recognition of the membership.

The Bylaws were revised by a group of DEED directors (past and present) and voted on by the Executive Committee. These revised bylaws are posted at:

<http://deed.asee.org/index.php/bylaws/>

There were 265 total ballots cast. The results were:

For:	238
Against:	10
Abstain:	17

The measure passed. The new set of bylaws will be submitted to ASEE administration for official adoption. It is the understanding of the DEED Executive Committee that these new bylaws will be in force starting in the Fall of 2016.

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5) Open Faculty Positions at Arizona State University

The Ira A. Fulton Schools of Engineering at Arizona State University has openings for tenure/tenure track faculty positions to support a broad initiative in advanced manufacturing. Appointments will be at the assistant, associate or full professor rank commensurate with the candidate’s experience and accomplishments, beginning August 2016. Areas of interest include, but are not limited to: product design strategies for additive manufacturing systems, modeling of advanced manufacturing systems and processes, non-destructive testing-manufacturing integration, hybrid additive-subtractive manufacturing process integration, automation strategies and technologies for hybrid manufacturing, and scalable manufacturing at the limits of size, temperatures, and material properties. While the faculty appointment may be in any of the six Fulton Schools of Engineering, The Polytechnic School, located at ASU’s Polytechnic campus in Mesa, Arizona, is currently the most involved in the search. The Polytechnic School houses the premier additive manufacturing and research center in the Southwest, providing strong support for the advancing ASU’s research and development in Advanced Manufacturing. The facility features over \$2M in state-of-the-art polymer, metal, and composite materials 3D printing equipment as well as advanced materials processing and analysis capabilities.

For more information or questions about the positions, please contact the search committee chair, Jennifer Bekki ([jennifer.bekki@asu.edu](mailto:jennifer.bekki@asu.edu)). Review of applications will begin on November 26, 2015.

For more information, see the complete posting online at: <http://engineering.asu.edu/hiring/advanced-manufacturing-systems-11362/>

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6) Purdue Research on Engineering Career Paths

We are working to develop preparatory materials that help engineering undergraduate students learn to write effective resumes and pursue professional engineering opportunities. The first phase of this research is to collect resumes from undergraduate students, young professionals, and mid/late-career professionals in engineering careers. We would appreciate your input as an engineer by completing a very short survey for us, as well as uploading a copy of your professional engineering resume. All of this is done through online survey software.

**Purpose of Research:** The purpose of this research is to study engineering career paths and resume writing from successful engineers at a variety of career levels (from university student into professional engineering roles).

**Specific Procedures to be Used:** This research is conducted via an online survey, which is comprised of demographic information and a space for you to upload your current resume into the system.

**Confidentiality:** The project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight. Steps will be taken to insure the confidentiality of all materials. All survey responses will be confidential. If your resume includes your name in the document or filename, these elements will be blinded before data analysis, in order to best protect your identity. All data provided to researchers will be stored in a secure (password protected) database that only the principal and co-investigators on this project will be able to access. Any printed data will be stored in a locked cabinet.

If you are willing to participate in our research, please follow the survey link below to participate. It is estimated that this will take no more than 5 minutes of your time.

[https://purdue.qualtrics.com/SE/?SID=SV\\_cXYlxlwZysGSf2J](https://purdue.qualtrics.com/SE/?SID=SV_cXYlxlwZysGSf2J)

In addition, if you would be willing to pass this on to your engineering friends and colleagues, we would be grateful for more participants.

Thanks in advance, as we work to better educate and prepare future generations of engineering students.

**Contact Information:** If you have concerns, you may contact:

Catherine Berdanier ([cberdanier@purdue.edu](mailto:cberdanier@purdue.edu))

Gracemarie Mike ([gmike@purdue.edu](mailto:gmike@purdue.edu))

Mary McCall ([mccall0@purdue.edu](mailto:mccall0@purdue.edu))

Dr. Monica Cox ([mfc@purdue.edu](mailto:mfc@purdue.edu))

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## 7) Faculty Position in the First-Year Engineering Program - University of Kentucky

The College of Engineering at the University of Kentucky invites applications for multiple non tenure-track lecturer and tenure-track special title series faculty positions with duties oriented primarily towards hands-on first-year engineering education. Appointment to lecturer or special title series faculty positions will be commensurate with applicant qualifications and experience. Applicants will hold a primary appointment in the academic department most closely aligned with their background and the Dean will assign their effort to the First-Year Engineering Program. All appointments are nine-month, renewable with a start date on or before May 16, 2016. In preparation for the fall 2016 launch of the First-Year Engineering curriculum, two months of summer support will be offered and applicants must be available for training during summer 2016. Opportunities to teach and/or participate in research in future summer sessions for additional compensation may be available.

Duties will include teaching 14-16 classroom contact hours per week, office hours, grading, supervision of teaching assistants and development of course materials. Multiple sections of lecture and laboratory courses will be offered each semester. Course topics include student success strategies, computer programming, software applications, hands-on hardware interfacing, teamwork and design projects. Individuals with embedded computer programming and/or engineering design experience are especially encouraged to apply. Experience in industry is also welcome.

Lecturer applicants should hold at least a Master's degree and at least one degree (BS, MS or PhD) in an engineering discipline or computer science. The initial appointment for lecturer faculty will be for one year. Applicants should have strong written and oral communication skills and a commitment to excellence in undergraduate education. Lecturer positions do not have required research responsibility; however interest in engineering education research will be viewed favorably.

To apply, please submit a cover letter, current curriculum vita, statement detailing teaching philosophy, interests, and experience, and contact information for at least three references.

Special Title Series applicants should hold at least a PhD and at least one degree (BS, MS or PhD) in an engineering discipline or computer science. The initial appointment for special title series faculty will be for two years. Teaching in the First-Year Engineering Program will be the majority of the assignment. Applicants should have strong written and oral communication skills, a commitment to excellence in undergraduate education and the motivation to sustain a program of independent scholarship through innovative educational activities, laboratory development, the direction of undergraduate and/or graduate research, and other independent and collaborative research endeavors.

To apply, please submit a cover letter, current curriculum vita, research statement, statement detailing teaching philosophy, interests, and experience, and contact information for at least three references. Review of applications will begin immediately and will continue until all positions are filled. Application documents should be submitted electronically, preferably by January 8, 2016.

To apply for Assistant Professor, Special Title Series, apply to requisition number:

- FE00357 (<http://ukjobs.uky.edu/postings/83969>).

For Lecturer positions, apply to position number:

- FE00363 – Electrical & Computer Engineering (<http://ukjobs.uky.edu/postings/84271>)
- FE00360 – Computer Science (<http://ukjobs.uky.edu/postings/84274>)
- FE00365 – Chemical & Materials Engineering (<http://ukjobs.uky.edu/postings/84275>)
- FE00362 – Civil Engineering (<http://ukjobs.uky.edu/postings/84276>)
- FE00361 – Mining Engineering (<http://ukjobs.uky.edu/postings/84278>)
- FE00364 – Mechanical Engineering (<http://ukjobs.uky.edu/postings/84280>)

For questions regarding the submittal of application materials, contact UK Human Resources by calling (859) 257-9555, option 2. For more information regarding this opportunity, please contact the Search Committee Chair, Dr. Janet Lumpp, Professor, Director of the First-Year Engineering Program ([jlumpp@uky.edu](mailto:jlumpp@uky.edu)).

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8) New program in Sustainable Design Engineering at The University of Prince Edward Island - Faculty Positions Available!

The School of Sustainable Design Engineering at the University of Prince Edward Island is seeking applicants for up to ten tenure-track faculty positions encompassing all academic ranks. UPEI's new four year degree program in Sustainable Design Engineering provides students with an unprecedented opportunity to gain their Bachelor of Science via a client-focused, project-based model.

Design projects, which are integrated into every academic semester of the program, are based on real-world problems and external clients. Through these design courses, students are immersed in a realistic engineering environment where they are expected to interact with clients, develop design solutions, and conform to the best practices of the profession.

<http://www.upei.ca/hr/competition/36a15>

If you have any questions, or would like more detailed information, please contact:

Elizabeth Osgood, P. Eng.  
Assistant Professor  
School of Sustainable Design Engineering  
University of Prince Edward Island  
[\(902\) 620-5175](tel:9026205175)  
[eosgood@upei.ca](mailto:eosgood@upei.ca)

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9) Faculty Position - University of Texas at El Paso

CHANGE THE FUTURE. JOIN OUR TEAM. (Tenure Track Faculty or Professor of Practice)  
The Department of Engineering Education and Leadership at The University of Texas at El Paso is looking for innovative, entrepreneurial minded, engineering and/or business leaders to help us continue developing the first in the nation BS in Engineering Leadership. If you are excited about integrating innovative techniques for teaching engineering with real world experiences in a flipped classroom setting, check us out!

For more information: [eel.utep.edu/docs/eeemployment.pdf](http://eel.utep.edu/docs/eeemployment.pdf) and [e-lead.utep.edu](http://e-lead.utep.edu).

Review of Applications begins December 15th!

Point of contact for questions or additional information:

Meagan Vaughan Kendall, PhD  
Assistant Professor  
Engineering Education & Leadership  
The University of Texas at El Paso  
[\(915\) 747-7829](tel:9157477829)  
[mvaughan@utep.edu](mailto:mvaughan@utep.edu)

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10) 4th INTERNATIONAL CONFERENCE ON DESIGN CREATIVITY to be held 2nd to 4th of November, 2016 in Atlanta, Georgia, USA

Design creativity is an important and interesting topic of study in design. Since it involves the profound and essential nature of design, design creativity is expected to be a key in not only addressing the social problems that we are facing, but also producing an innate appreciation for beauty and happiness in our minds. In order to elucidate the nature of design creativity, the following issues are being studied: cognitive processes underlying design creativity, computational models of design creativity, and practical processes to incorporate the human and social dimensions.

Conference website:

[www.me.gatech.edu/2016\\_icdc](http://www.me.gatech.edu/2016_icdc)

Email:

[ICDC2016@me.gatech.edu](mailto:ICDC2016@me.gatech.edu)

We invite high-quality submission for ICDC including, but are not limited to the following: Collaborative creative design, Cognition in creative design, Creative design processes and methods, Creative design styles and cultures, Design creativity support tools, Cultural aspects of creativity and innovation, Measuring creativity and its impact, Social dimensions of creative design, Teaching creativity and innovation, Bioinspired design, Creative processes in design.

Full paper submission: 15th April, 2016

Conference Chair: Julie Linsey, USA

Vice Chair: Yukari Nagai, Japan

Program Chair: Maria Yang, USA

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ICDC 2016 will be co-located with the 24th International Conference on Case-Based Reasoning (ICCBR 2016). ICCBR 2016 will be held at Georgia Tech from Oct. 31 to Nov. 2 with Creativity as the conference theme. Details to follow soon. Contact Dr. Ashok Goel for more details on ICCBR 2016 [ashok.goel@cc.gatech.edu](mailto:ashok.goel@cc.gatech.edu)

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11) 2nd Annual Mid Years Engineering Experience Conference (MYEE)

Call for proposals (presentations and workshops) <http://myeec.org>

March 30 – April 1, 2016

College Station, TX

Hosted by:

The Dwight Look College of Engineering at Texas A&M University

The Texas A&M Engineering Experiment Station

The Institute for Engineering Education and Innovation

The second annual Mid Years Engineering Experience (MYEE) Conference is dedicated solely to addressing the middle years in the engineering curriculum, i.e., the sophomore and junior years. These two years are typically referred to as the Sophomore Slump and Junior Jump. To ensure a quality conference MYEE seeks presentations, workshops, and/or special sessions related to the primary objective of promoting scholarly research on topics focusing on these two years. Both 2-year and 4-year institutions are encouraged to submit. Suggested topics include, but are not limited to: innovative pedagogies for teaching engineering science courses; proven techniques of using instructional technology to enhance student learning and/or critical thinking skills; successful models for engaging professional practitioners, such as in-classroom, field trips, and internships; design across the curriculum; novel assessment/research methods for student learning and program evaluation/improvement; retention; issues related to nontraditional student populations; diversity-aware classroom techniques; and advising. The intent is to offer a collaborative exchange of ideas that have worked for second and third year engineering students, while providing networking opportunities for engineering educators who focus on these areas.

The conference organizers are pleased to announce the international journal, "Engineering Education Letters," has agreed to partner with this conference to publish a Special Issue. Based on the conference review of the extended abstracts, selected authors will be invited to write a full paper for a Special Issue of "Engineering Education Letters" focused on these mid years, which will then go through the standard, peer review process.

1. Presentation, workshop, or special session proposals submission (300 - 500 word summary): February 8, 2016
2. Proposals reviewed and authors notified: February 12, 2016
3. Early Registration Deadline: February 15, 2016
4. Final proceedings version of Extended Abstracts (1500-3000 words): March 1, 2016
5. Conference: March 30 - April 1, 2016

Proposals for participation in the 2016 Conference can be submitted in the following two venues:

1. Workshops: Longer period of time for a focused topic or exchange.
2. Presentations: For projects either well defined or projects that are planned to begin soon.
3. Special Sessions: Panels, round tables, discussions, vendor showcases, etc.

#### Topics of Interest

You can either select an area of Engineering Education, Engineering Technology Education, Computer Science Education or other related area. The topic areas are to allow attendees to develop a network of people with common interests,

- Advances in engineering education research as it applies to the sophomore and junior year experience
- Innovative pedagogies for teaching technical content
- Laboratory development and innovation
- Experiential learning and immersive experiences
- Design education

- Undergraduate research and integration of research and education
- Blended, inverted/flipped, and online learning in the sophomore and junior years
- Design across the curriculum involving the sophomore and junior years
- Current technologies and their impact on the sophomore gateway courses and junior courses
- Novel assessment/research methods for student learning and program evaluation/improvement
- Innovative and proven methods for assessing effective teaching using instruments outside of and/or in addition to the traditional student rating
- Novel approaches and methods for addressing ABET engineering criteria
- Learning outcomes, assessment, and accreditation
- Demonstrated success in integrating sustainability concepts within classes, curricula, and co-curricular activities
- Retention and learner support strategies for the sophomore and junior years
- Transition strategies from the freshman year to the sophomore year to improve sophomore slump
- Integration of transfer students to the mid years
- Approaches to address the time "between the bookends" of the freshmen year and the senior year
- Measures and promotion of academic maturity in the mid years
- Role of advising and its impact on the mid years
- Effective uses of peer mentoring and/or student organizations in the mid years
- Formation and development of engineering identity in the sophomore and junior years
- Student development models and best practices to promote the professional development of preparing students for internships and graduation
- Strategies to improve sophomore and junior year success for diverse students
- Use of learning analytics to improve success and retention for mid years
- Living and learning communities in the mid years
- Service learning in the mid years
- Preparing students for the jump or transition to the professional environment
- Other topics that address issues in engineering education in the sophomore and junior years

If you have any questions, please contact the conference organizers at [myeec@tamu.edu](mailto:myeec@tamu.edu)

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## 12) ASEE Strategic Doing and Engineering Education Transformation Network Announcements !

Seeking Volunteers: ASEE Strategic Doing Team

We are seeking volunteers to engage in ASEE's Strategic Doing efforts through the Transformation Team. The purpose of this team is to help ASEE transform how it supports teams of faculty, administration, and students as they transform engineering education at their institutions. This is a great opportunity to engage with and serve ASEE and its members while building a network of colleagues interested in transformation of engineering education. Expected monthly time-commitment: 2-3 hours. To join or for more information, please contact the team lead

Gurlovleen Rathore ([Gurlovleen.rathore@gmail.com](mailto:Gurlovleen.rathore@gmail.com))

(Five-minute) Survey: Engineering Education Transformation Network

Are you working to transform engineering education?

Do you want to connect with like-minded colleagues to expand your efforts, leverage best practices and/or resolve challenges you have encountered?

Complete a brief survey to help ASEE's Transformation Team develop a network to support your ongoing efforts to transform engineering education. Questions? Contact ASEE's Strategic Doing Transformation Team lead by Gurlovleen Rathore ([Gurlovleen.rathore@gmail.com](mailto:Gurlovleen.rathore@gmail.com))

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### 13) Academic Forum on Systems Engineering Knowledge in the Education of All Engineers

The International Council on Systems Engineering (INCOSE), the Systems Engineering Research Center (SERC), the American Society of Engineering Education (ASEE) and a number of universities are working together to increase the use of Systems Engineering (SE) Knowledge in the Education of All Engineers.

As part of this work we will hold a free Academic Forum meeting at George Mason University (GMU) on 2-3 May 2016 at the GMU Arlington Campus.

<http://arlington.gmu.edu>

Please put these dates in your calendar if you would like to attend and register your interest by sending your name and affiliation to Mr. Angel Manzo at:

[seor@gmu.edu](mailto:seor@gmu.edu)

The event will be free to attend but places will be limited and attendees must register. Details on how to register for a place, local hotels, etc. are available at the forum website.

A brief discussion of the forum theme and aims is given below. Three specific themes have emerged from previous academic forum:

1. Why is SE knowledge of value to the education of all engineers?
2. What SE knowledge is important to achieve this value?
3. How do we facilitate the integration of this knowledge into engineering education?

You can find a discussion of these themes, the background and motivation for our joint activities, and a description of recent forum activities at

<http://www.wpi.edu/research/seli/incose61.html>.

If you have specific ideas or information to add to this work and would like to be more directly involved, please contact Rick Adcock.

Rick Adcock  
INCOSE Associate Director for Education  
[R.D.Adcock@Cranfield.ac.uk](mailto:R.D.Adcock@Cranfield.ac.uk)

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14) Put the Design in DEED!

"The scientist merely explores that which exists, while the engineer creates what has never existed before."

- Theodore Von Kármán

Design is central to engineering. Shouldn't DEED be central to ASEE?

DEED members, please reach out to your colleagues and encourage them to join the DEED division!

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15) Submitting to the InDEED Newsletter

To submit an item to the InDEED newsletter, please prepare a short description (no more than 2 paragraphs) including any relevant URLs (in explicit form, not as hyperlinks), deadlines and contact information.

Email this information to Peter Schmidt, DEED Division Chair - [ps125@evansville.edu](mailto:ps125@evansville.edu).

The newsletter will be distributed on the 15th of each month. Newsletter submissions should be forwarded no later than the 10th of the month.

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Yours inDEED,  
Peter L. Schmidt, PE, PhD  
Division Chair, ASEE DEED