### Dear DEED Community,

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. As always, these newsletters and even more awesome information are available 24 hours a day, 7 days a week, at locations all around the world on our <u>DEED website</u>. Newsletters are typically sent on the 15th of every month; submissions are welcome.

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# 1) ABET revisions — with a \*new definition of design\* are posted for review The Engineering Accreditation Commissions Criteria Committee has met in July — after spending "months categorizing summarizing and evaluating each one of the hundreds of

spending "months categorizing, summarizing and evaluating each one of the hundreds of comments" to continue reviewing EAC Criteria 3 and 5.

EVERYONE should check out the <u>side-by-side comparison of changes</u>—which include a significantly changed definition of design.

The next step is for something called the "Area Delegation" to review these changes and then it will be put out for public comment.

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#### 2) Design Education and Learning Resources by Verity Design Learning

With summer quickly drawing to a close, I imagine you are pondering how to get better results from your design classes. I want to update you on tools I developed to enhance students' design thinking and integrate teamwork and professional learning into your design projects. These tools help students take responsibility for learning and documenting their own achievement! Tools include:

Professional Teamwork Mentor workbook Professional Design Reviews workbook Design-Teamwork-Professional Development card deck The newest tool is the 3-by-5 inch card deck containing over 100 individual cards to prompt team discussion and action. Students may select or you may specify cards for a given day as teams meet, bringing professional learning into regular project discussions. One card deck per team should do the trick.

Please visit the Verity Design Learning website (<a href="http://VerityDesignLearning.com">http://VerityDesignLearning.com</a>) where you may view the entire workbook or card deck. Begin envisioning how these might stimulate student learning and improve design performance.

If you have questions, please contact Denny Davis at: shady\_oaks@frontier.com.

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3) Free Beta Evaluation Copy of the Ecosystem Design Software for Design Educators Imagars LLC is looking to connect with capstone instructors interested in taking part in a beta evaluation of Ver. 1.0 of the Ecosystem for Learning and Team Design. The Ecosystem Ver. 1.0 is a comprehensive high-level design decision support system, that is layered on top of existing design tools, and whose central goal is to uncover design oversights early in the design process. It is a generic framework for engineering design, that provides guidance to designers through the design process, and offers real-time notifications in case of oversights. The Ecosystem allows designers to systematically capture customer feedback, define solid customer requirements, transform into strong engineering requirements, and objectively analyze their concept solution candidates. It offers interfaces to multiple tools for engineering development and team communications.

With the beta evaluation, Imagars wants to run the Ecosystem through an entire design cycle, and verify it fulfills the needs of a broad set of capstone programs. We want to pursue further enhancements in a methodical fashion, collect feedback, and through an iterative exchange systematically converge onto your need.

For further information, including sample demos and testimonial from earlier evaluations, refer to www.imagars.com

Those interested are welcome to contact Dr. Baldur A. Steingrimsson at baldur@imagars.com.

"If a reliability problem is detected during engineering, the cost of the product goes up by a factor of 10. If the problem is caught in production phase, the cost of the product increases by a factor of 100 or more."

R.S.M. Harry

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# 4) POSITION ANNOUNCEMENT: Post-Doctoral Research Fellow At University Of Michigan And Iowa State

We are looking for a Post-Doctoral Research Fellow for an engineering education/ design education research project funded by the National Science Foundation. This project is a collaborative effort between the Iowa State University and the University of Michigan. The successful candidate will be part of a team with colleagues from both universities. The research team includes faculty from Engineering Education, Mechanical Engineering, Cognitive Psychology, and Industrial Design. The project will focus on creating new knowledge and research publications about the dissemination of design pedagogy. The candidate will be involved in collecting and analyzing data, developing design tools and curriculum, writing

manuscripts, leading workshops at other institutions on design pedagogy, and supporting the success of a network of instructors. Additional responsibilities will include mentoring undergraduate students who are involved in the project and maintaining our research website.

The candidate should be personable, value teamwork, and should have excellent communication skills. PhDs from engineering, design, engineering education, and other related disciplines will be considered. This is a full-time position for one year, with a salary range of \$45-50,000. The candidate will get structured mentoring from both institutions to excel in her/his career as a researcher and an educator.

We would like to hire immediately; however, a later start date is possible, depending on the candidate's timetable. Please send your CV and cover letter describing your interest to <a href="mailto:seda@iastate.edu">seda@iastate.edu</a>.

Please contact us with any questions you may have. Seda Yilmaz, Iowa State University, <a href="mailto:seda@iastate.edu">seda@iastate.edu</a> Shanna Daly, University of Michigan, <a href="mailto:seda@iastate.edu">srdaly@umich.edu</a>

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### 5) POSITION ANNOUNCEMENT: Lecturer in Engineering Design, Rice University

The School of Engineering at Rice University seeks applications for a non-tenure-track faculty appointment with a full-time focus on undergraduate education at the Oshman Engineering Design Kitchen (OEDK). The OEDK provides undergraduate engineering students with ready access to design tools, prototyping equipment, computational facilities, meeting rooms and ample space for prototype design and development.

A Ph.D. degree in engineering or a related field is required. Individuals with practical electronics and/or industry experience (e.g., design and manufacturing, project management, regulatory requirements, engineering and/or commercial development) as well as recent Ph.D. graduates are encouraged to apply. Competitive applications will also have strong interpersonal and communication skills and a passion for teaching.

Additional details and application instructions are contained at this link: http://oedk.rice.edu/EDES-Lecturer

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## 6. POSITION ANNOUNCEMENT: Division Director for the NSF Division of Engineering Education and Centers

Applicants sought for Division Director for the NSF Division of Engineering Education and Centers

NSF is seeking applicants for the position of Division Director for the Division of Engineering Education and Centers (EEC). The EEC division manages a broad portfolio of programs that aim to integrate engineering research and education, to accelerate technological and educational innovation, and to improve the quality and diversity of engineering graduates entering the technical workforce. EEC center and network activities, which encompass the signature Engineering Research Centers (ERC) program, provide the structure for interdisciplinary research and education, and technology transfer in partnership with academia, industry and government. The division's education activities include engineering pedagogy and

learning strategies in traditional and non-traditional environments. EEC workforce development activities prepare engineering students to graduate as leaders with a global outlook and with the ability to adapt to the rapidly evolving technical environment in industry, academe, and society. The Division Director has managerial and oversight responsibilities for the effective use of division staff and resources in meeting organizational goals and objectives.

For more information, including how to apply, go tohttps://www.usajobs.gov/GetJob/ViewDetails/446681700.

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#### 7) 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.

Putting the words "DEED newsletter" in the subject will help make sure your submission makes it in the email.

Email this information to Reid Bailey, DEED Division Chair - <a href="mailto:rrbailey@virginia.edu">rrbailey@virginia.edu</a>

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

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August 2016 DEED Moment of Zen: As we close out summer, let's appreciate poor design at waterparks — with no better example than Explore Park's "Cannonball Loop." The "test plan" for this slide apparently involved giving employees \$100 bills if there were willing to go down it.

Reid Bailey DEED Chair, 2016-2017