

January 31, 2013

Biofuels Digest honors Brown twice in 2012

For the third consecutive year, Anson Marston Distinguished Professor in Engineering Robert Brown was ranked in the [Top 100 People in Bioenergy](#) by Biofuels Digest. This year, he rose to #47, after his rankings at #59 and #61, in 2012 and 2011, respectively. The list is voted on by Biofuels Digest readers and the newsletter's editorial board. Brown is the Gary and Donna Hoover Chair in Mechanical Engineering, Professor of Chemical and Biological Engineering, Professor of Agricultural and Biosystems Engineering, Director of the Bioeconomy Institute, and Director of the Center for Sustainable Environmental Technologies.



Brown

Biofuels Digest has also honored the book "Why Are We Producing Biofuels?" by Robert Brown and Tristan R. Brown as the [2012 Book of the Year](#). Congratulations to Dr. Brown on these honors!

Lunabotics team gets ready for spring mining competition



The ISU Lunabotics team is gearing up for the Fourth Annual Lunabotics Mining Competition at the Kennedy Space Center, Florida on May 20-24, 2013. The team has put together a promotional video of last year's competition in Florida, featuring their robot Art-E. Last year, the ISU team placed second overall and placed first in the [outreach report category](#). ([Promo video](#))

Rajala named next dean in Iowa State's College of Engineering

Sarah Rajala (RYE-ah-lah) will become the next dean of the College of Engineering at Iowa State University on April 1, 2013. Rajala has been dean of engineering at Mississippi State University since 2008. ([Rajala release](#))



Rajala

Recent grant award announcement

PI: Baskar Ganapathysubramanian

Title: Predicting Nanoscale Morphology in Solution Processed Organic Solar Cells

Award Amount: \$417,809

Awarding Agency: King Abdullah University

This competitive research grant is a collaborative research activity involving ISU, Imperial College, London, and KAUST, Saudi Arabia. The goal of the proposal is to create a predictive modeling framework for organic photovoltaic technology. In pursuit of this vision, the overarching research objective of this proposal is to test the hypothesis that experimentally validated, predictive multiscale modeling of the fabrication process can be used to rapidly tailor fabrication conditions to achieve high-efficiency organic solar cells. The proposal will integrate a multi-scale computational framework for solvent based fabrication of organic photovoltaic devices with (a) in situ flow measurements (macro-scale processing variables, such as velocity field within thin driven films) and (b) link with accurate material specific



Ganapathysubramanian

Heindel named director of Iowa NSF EPSCoR Energy Project

Bergles Professor of Thermal Science Ted Heindel has been appointed project director of Iowa NSF EPSCoR, a project aimed at building Iowa's research capacity in renewable energy and energy efficiency. Heindel, the Bergles Professor of Thermal Science in mechanical engineering at Iowa State University, will lead the \$20 million, state-wide project. The Iowa National Science Foundation's Experimental Program to Stimulate Competitive Research (Iowa NSF EPSCoR) program is in its second year of a five-year grant. The appointment was effective Jan. 2, 2013. ([EPSCoR story](#))



Heindel

Further reading: [Iowa EPSCoR builds state's research capacity in renewable energy and energy use](#)

Olsen's online office hours featured in magazine article

The latest issue of Campus Technology Magazine features Professor Michael Olsen's use of Adobe Connect to give more personal contact to the growing number of students in his class. [Read the full article on page 27 in the magazine](#), and also read more about his use of Adobe Connect in [Innovate](#).



Olsen

Middle school students participate in annual FIRST LEGO League state championship on ISU campus



The FIRST (For the Inspiration and Recognition of Science and Technology) LEGO League (FLL) is an international program designed to get children interested in and excited about science, technology, and engineering. ME faculty and more than 100 ME students participated in the January 19 Iowa FLL Championship on the ISU campus, including Associate Professor Sriram Sundararajan, who served as a judge for the event. Associate Professor Eliot Winer demonstrated some of his work in virtual reality as an outreach activity during the event. Iowa State Engineering Kids (ISEK) organizes the event each year. Participants are ages 9-14 and compete in teams of 2-10 members to design, program and build a robot out of LEGOs that meet that year's challenge.

parameters (thermodynamic and kinetic) through the establishment of non-equilibrium temperature/composition phase diagrams using thermal analysis, optical microscopy, SEM, TEM and UV-Vis spectroscopy. High-speed imaging of the velocity fields inside the solidifying films will time- and space-resolve macroscopic flow-fields down to a few micrometers.

Upcoming events

January 31 – Engineering Club Fair, Howe Hall Atrium, 4 to 6 p.m.

February 12 – [Engineering Spring Career Fair](#), Hilton Coliseum and Scheman Building, noon to 6 p.m.

Department of Mechanical Engineering
2025 Black Engineering Building, Ames, IA 50011
515 294-1423, isume@iastate.edu

Blog features updates of ME 270 student fanning mill design project in Uganda

In Summer 2012, a student ME 270 design project was taken to Eastern Africa to be tested in the field. The students designed a seed cleaner, or fanning mill, that would provide clean grain, in less time, and with better working conditions for soybean farmers in lesser developed countries. The [Volunteer Farmers Blog](#) is available online and provides updates on the project in Uganda. ([Read the original story from Innovate.](#))

Do you have department news you'd like to share?
Please e-mail news items for InCYde Mechanical Engineering to [Alex Rausch](#).