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**December 20, 2011** 



Judy Vance, right, demonstrates a virtual factory in Iowa State's METaL virtual reality facility. Working in the virtual factory are students, left to right, Leif Berg, Meisha Rosenberg and Ryan Pavlik.

### Vance's METaL lab develops multiple ways to experience virtual reality

lowa State's METaL virtual reality facility is designed to be a versatile, everyday research tool. It will be used to study and develop 3-D visual display technology, audio effects and force feedback. It will also make virtual reality more accessible on campus. (Full story)

#### Galloway Fellowship recipients announced

Seven mechanical engineering students were appointed as a Seward, Ratcliffe, and Galloway Foundation Mechanical Engineering Fellow for the 2011 academic year. This year's winners include Marisol Martinez, Can Zhu, Yannan Zhang, Zhuoru Wu, Bethany Juhnke, Joanna Peddicord, and for Spring 2012, Chloe Dedic. The fellowship includes a stipend of \$4000 for the academic year, and are made possible through the Roderick Seward, Flossie Ratcliffe, and Helen M. Galloway Foundation, Inc. These fellowships are reserved for on-campus graduate students enrolled full-time in mechanical engineering at lowa State.

# Fall 2011 Research and Teaching Excellence Awards

Four mechanical engineering graduate students received research and teaching excellence awards for the Fall 2011 semester. Lin Liu, Joseph Miller and Yufeng Wu received research excellence awards, and Nathan Johnson received a teaching excellence award. These awards recognize and encourage outstanding achievement by graduate students in research and teaching. These students were nominated by their major professors: Lin Liu's advisors are **Abhijit Chandra** and **Gap-Yong Kim**; Joseph Miller's advisor is **Terry Meyer**; Yufeng Wu's advisor is Gap-Yong Kim; and Nathan Johnson's advisor is **Mark Bryden**.

# Student marshal and outstanding seniors named for fall commencement

Lowell Stutzman, senior in mechanical engineering, was nominated by the Mechanical Engineering Department for the

### Research featured as image of the week

Song Zhang's research image was featured on the front page of The Optical Society Optics Info Base website for the second time this year during the week of December 1. The research article, "Three-dimensional profilometry with nearly focused binary phase-shifting algorithms," can be found on the site.

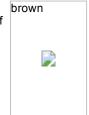


#### **New ME graduates**

On December 17, 90 new BSME graduates received their degree from lowa State. Additionally, 19 master's degrees and 8 PhD degrees in mechanical engineering were awarded. Congratulations to all new mechanical engineering graduates!

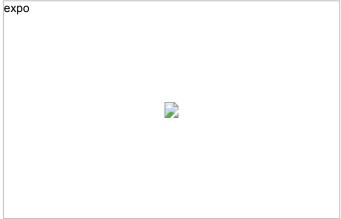
### Brown discovers NAS report is based off Iowa State research

When **Robert Brown** was perusing the early October publication of the National Academies of Sciences' report on U.S. biofuels policy, his attention was drawn to its economic analysis. As he read on, Brown realized that this part of the report was heavily influenced by studies performed at lowa State.



"I was surprised to discover that the economic assessment was derived almost exclusively from

papers and reports published by our research team in the previous year," explains Brown, who is the Anson Marston Distinguished Professor of Engineering, Gary and Donna Hoover Chair in Mechanical Engineering, lowa Farm Bureau director of the Bioeconomy Institute, director of the Center for Sustainable Environmental Technologies, and professor of mechanical engineering, chemical and biological engineering, and agricultural and biosystems engineering. (Full story)



Students present their design projects from ME courses at the Fall 2011 ME Design Expo on December 6.

### ME Design Expo was a success

College of Engineering student marshal for the fall 2011 commencement ceremonies on December 17. (Full story).

# Two ME students among best Army ROTC program in Midwestern brigade

The Cyclone Army ROTC Battalion at Iowa State University has been named the top program in the 3rd Brigade. The award is based on overall training performance and success at the annual Leadership Development and Assessment Course (LDAC), and commissioning excellence. The 3rd Brigade is based at the Great Lakes Naval Station in Illinois, and includes Army ROTC programs at more than 40 schools in the Midwest. Tim Elbert and Carl Schmidt, both seniors in mechanical engineering, are members of the program. (Full story)

# **Mechanical Engineering Department Winter Break Office Hours**

**December 19-21**: 7:30 a.m. – 4 p.m. **December 22**: 7:30 a.m. – noon

December 23 & 26: University Holidays

December 27-30: Main Office closed (limited staff in Advising

Center)

January 2: University Holiday January 3-6: 7:30 a.m. – 4 p.m.

January 9: Resume regular office hours

As one student put tape in his mouth to secure string to his model aircraft, another group sent smoke rings wafting through the air at the Mechanical Engineering Design Expo on Tuesday. More than 50 engineering class projects, including a bicycle-powered cell phone charger, a solar-powered medical cooler and a bubble car, were on display in a packed Howe Hall to show off the work of five mechanical engineering design classes. (Full story from lowa State Daily)

# Eight ME students take oath to be responsible engineers

On November 29, 2011, 22 graduating students, including 8 mechanical engineering students, participated in the Order of the Engineer, a rite of passage from student to professional engineer. (Full release)

# Iowa State engineers establish national panel to advance a carbon negative economy

A national panel led by lowa State engineers is launching an effort to research and develop technologies that capture, use, and sequester carbon while enhancing food production, ecosystems, economic development, and national security. The 33-member National Panel for a Carbon Negative Economy recently met for the first time in Chicago. (Full story)

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