Michigan State University Design Day Showcases Innovations that Make the World a Better Place

December 4, 2012

An MSU computer science student's physics course just got a little easier, thanks to some of her fellow engineering students.

Working with MSU's Resource Center for Persons with Disabilities (RCPD), a team of MSU first-year engineering students designed teaching aids for the computer science student, who is blind.

Students in MSU's College of Engineering, from freshmen to seniors, have spent the semester working on projects—like the one above—that will benefit not only people close to home but individuals around the world.

More than 400 students will present their design projects through exhibits, posters and presentations during the college's Design Day on Friday, December 7, 2012, from 8:00 a.m. to noon at the MSU Union. An awards ceremony follows at 1:15 p.m.

Graduating seniors will be the highlight of the event as they present their capstone design projects and interact with 27 industrial sponsors and others. This semester's projects range from a Medication Shortages Dashboard that will provide pharmacists with an at-a-glance overview of current national drug shortages; to a floor-to-ceiling moveable wall for offices, with a surface that can accommodate pins, tacks or staples directly; to a programmable joystick that will function as an electronic device interface for individuals living with cerebral palsy.

Corporate sponsors of the capstone projects include ArcelorMittal, Auto-Owners Insurance, Boeing, Bosch, Chrysler, Ford, GE Aviation, Google, Meijer, Mozilla Firefox, Quicken Loans, Spectrum Health Systems, TechSmith, Texas Instruments, Urban Science and the Whirlpool Corporation.

In addition to the senior capstone projects, freshman engineering students will display their innovations.

"Our first-year program, the CoRe (Cornerstone and Residential) Experience, allows MSU engineering students to begin, in their first semester, to realize the importance of engineering and the positive impact that engineers make on society and the world around them," said Jennifer Jennings, Design Day director.

During fall semester, some of these students have been working on a project for Peckham Industries, a nonprofit, vocational rehabilitation organization that provides job-training opportunities for persons with disabilities. The student team has designed and built an application for mobile devices that will provide information about the 200 pieces of artwork—created by Peckham clients—on display in the facility.

Other students in the CoRe program have been working with MSU's RCPD to design and build working prototypes to assist clients in daily activities. Projects include electronics instructional kits and captioned videos for deaf or blind students, and a cell phone mount for a local woman's wheelchair.

"Design Day provides all of our students with an opportunity to challenge themselves technically and prepare to begin a successful career," said Jennings.

Nearly 200 Michigan pre-college students will also visit campus during Design Day to participate in the Dart Foundation Day of Engineering Innovation and Creativity for students in grades 7 through 12. They will interact with MSU College of Engineering students and participate in hands-on robotic and structural support system activities that explore design principles requiring the application of creativity and ingenuity.
For the seventh consecutive semester, Auto-Owners Insurance Company of Lansing is the Executive Partner sponsor of Design Day. Whirlpool Corporation is the Directing Partner, and Supporting Partners include Bosch, Dow Chemical Corporation, Michigan State University Athletics, Michigan State University Federal Credit Union and Quicken Loans.

Design Day is held at the end of each fall and spring semester.

More information about Design Day

View the fall 2012 Design Day booklet

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