Design Day Spring 2017

April 25, 2017

Spring Design Day to show off creativity and innovations of 246 teams and 1,075 students on Friday, April 28

Wayne Dyksen, a professor at Michigan State University, will tell you that the toughest lesson for young software developers to learn is to involve the users. When they are brutally honest third graders – the lesson arrives loud and clear.

That was the case when a College of Engineering team of students took the video game they created for TWO MEN AND A TRUCK and did a final test run past Mrs. Marcia Dyksen’s third grade students at Lansing Christian School on April 21.

Their game, “Movers Who Care,” is a mobile driving game for smart phones and devices that gives bored children something to do on moving day.

The trip to Lansing Christian School last week wasn’t the first time the college students approached the third graders, who have actively been evaluating the game for months. Most recently, the third graders suggested:

- Unlock levels one at a time,
- Make level selection arrows more visible,
- Keep track of high score for each level, and
- Make it an instant loss when you fall in a pit.

MSU team members are all seniors in computer science and are:
Connor McDermott, Clarkston, Michigan,
Travis Nichols, Commerce, Michigan,
Curtis Notarantonio, Royal Oak, Michigan,
Kai Wang, Wuhan, Hubei, China, and
Jordan Ng, Commerce Township, Michigan.

(See videos on the Design Day team’s visit to Lansing Christian School on WLNS TV 6 Lansing and WILX TV 10 Lansing.)

The game was created as a senior capstone project and will be presented at the 2017 Spring Design Day in the MSU
College of Engineering on Friday, April 28. This culminating, end-of-year experience showcases the innovations of the next generation of engineers and computer scientists at Michigan State.

Spring Design Day runs from 8 a.m. to noon in the Engineering Building, 428 S. Shaw Lane, East Lansing, with awards presented at 1:15 p.m. in Anthony Hall Room 1281. Design Day is free and open to the public.

Spring Design Day will incorporate the 10 degree programs in the MSU College of Engineering, along with 16 courses, 246 teams and 1,076 students.

“Design Day continues to grow along with our undergraduate student numbers in the MSU College of Engineering,” said Dyksen, who is the executive director of Design Day and a professor of computer science and engineering.

“Design Day presents the innovation and creative work of our students and showcases that they are ready to enter the engineering profession. At Design Day, student teams present their ideas to their client, defend their ideas before faculty and industry experts, and have to think on their feet – which is what is going to happen when they leave MSU and start their careers,” Dyksen added.

Design Day includes competitions and project presentations from a variety of engineering classes. The 15-week capstone course, which is required for graduation, provides a platform for students to apply the knowledge and experiences gained throughout their engineering education at MSU. Working in teams of four or five, seniors put their best efforts into solving real-world problems for big and small companies. At the end of each semester, teams present at Design Day.

**Spring 2017 Design Day by the numbers**
- 246 teams
- 1,076 students
Capstone projects represent:
• 590 students
• 112 teams
• 94 sponsored projects
• 69 Michigan-based companies and institutions (73 percent)

Pre-college outreach programming includes:
• 4 schools
• 140 students in 9th-12th
• 15 teachers

Design Day Awards Ceremony: 1:15 p.m., Anthony Hall Room 1281
• 13 awards conferred to top Design Day teams
• Judges include faculty and corporate representatives

Background
• All 10 MSU College of Engineering undergraduate degree programs represented
• Twice yearly event on last day of each semester (before finals week)
• 24th Year for Design Day (initiated in 1994 by the Department of Mechanical Engineering)

See the team members and their projects in the 2017 Design Day Program Guide.

More on Design Day
Also featured at Design Day will be projects developed in the first year Cornerstone engineering course, EGR 100: Introduction to Engineering Design. EGR 100 introduces students to the engineering profession and design process through team-based assignments. The course is an integral part of the MSU CoRe Experience, a residential program for all first-year engineering students. Additionally, EGR 102, Introduction to Engineering Modeling, is a foundational course in programming, data management, and numerical modeling. A select group of EGR 102 projects will be demonstrated on Design Day.

Approximately 140 high school students will attend activities at the Dart Innovative and Creativity Design Day for students and teachers in grades 9-12. This year, students will get hands-on experience with VEX robotics – controlling a robot and writing Robot C language – plus teaming up to create an engineering support system – from a simple beam to an intricate bridge with gussets, trusses, and cables. The high school students also play a key judging role on Design Day, serving as judges for “People’s Choice” awards for the college students’ most popular projects.
Related Website: MSU Design Day
MSUToday - Local third graders test Design Day project
Lansing State Journal - Third graders test video game for MSU Students
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