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## CEAS e-news 12.04.2012

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December 14, 2012

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"The story of civilization is the story of engineering—that long and arduous struggle to make the forces of nature work for man's good."  
~ L. Sprague DeCamp



## CEAS News

### Innovation Day and Senior Design Conference Draws Many To Parkview Campus



**Left:** Senior Bryan Ford is demonstrating the touch screen kiosk design project. Other design team members not pictured are Michael Guzior and Alan Pfeiffer.



**L-R:** Seniors Michael Biro, Millet Mello, and Ross Snyder with their project Robo-Bronco.

Touch screen kiosks at universities often provide targeted services to both visitors and students. The kiosks within the lobby of the CEAS had not provided these services. Seniors **Bryan Ford, Michael Guzior, and Alan Pfeiffer** took on the challenge of creating a graphical interface using Windows Presentation Foundation, an IDE within Visual Studio, to provide new student and visitor services as their senior project. The main services included a campus map, contact info for staff, and campus events. The kiosks will help provide answers to common questions asked by visitors and students new to the campus. The project that received the most votes at the Innovation Day event was created by WMU juniors **Juliana Dias, Cassio Farias, and Leticia Rosolem**. Their project was called, "[Antifalling Headphones](#)".

Robo-Bronco, first developed in 1999 to serve as a recruitment tool for Western Michigan University, needed extensive updating in mechanical and interface systems. Existing mechanical constraints were addressed and redesigned to bring the technology up to date. Additional ranges of motion were introduced in the legs, giving the robot more humanoid qualities. The overall structural design was lightened, improving stability by lowering the center of gravity. Programming and interface were improved through the addition of an Arduino microcontroller. Extensive research on humanoid robotics, 3D modeling, and testing of new modifications done by Seniors **Michael Biro, Millet Mello, and Ross Snyder** brought Robo-Bronco new life as WMU's robotics case study and publicity robot.

### CCE Graduate Student Farhad Abasahl Receives 2nd ITE Award



Farhad Abasahl

Civil and Construction Engineering graduate student **Farhad Abasahl** was awarded a \$2000 Michigan Student Section scholarship from the Institute of Transportation Engineers (ITE). The ITE sponsors a student paper competition each year as well for graduate and undergraduate students who submit a technical paper; previously Farhad also won the \$500 1<sup>st</sup> place award for his paper "Key Elements of Safety in Modern Roundabouts".



### Quick News Links

["Anything worth doing is worth doing well and if you work hard at it, it will pay off" says Mitch Zajac, Rhodes Scholarship Award Finalist](#)

[Paper Engineering Program is Paying Off](#)

[Green Manufacturing Initiative](#)

["Antifalling Headphones" Wins CEAS Innovation Day Entrepreneurial Event](#)