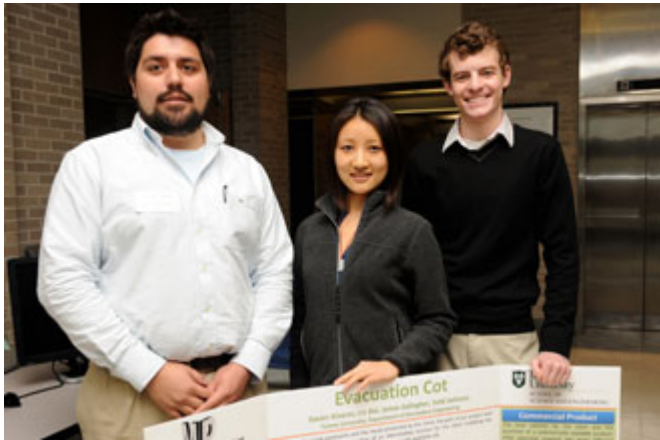


Students' Designs Solve Real-world Challenges

March 02, 2010 11:00 AM Kathryn Hobgood
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David Rice watched carefully on Saturday (Feb. 27) as teams of his biomedical engineering students proudly debuted the devices they have built to assist New Orleanians with disabilities. "The big deal is working not so much for a class grade, but for real people who need help," he says.



Xavier Alvarez (from left), Lin Bai and James Gallagher won the top award for designing an improved sleeping cot for nursing home evacuees. (Photos by Sally Asher)

Saturday's show is a major milestone for a two-semester course called "Team Design Projects" taught by Rice, an associate professor of biomedical engineering in the Tulane School of Science and Engineering, who started the annual show 21 years ago.

This year, five [teams](#) competed to build the best design and win the [Kenneth H. Kuhn Sr. Memorial Award](#).

Scott Songy, who is a quadriplegic with some mobility in his right arm, has been working with Rice and his students for the past 10 years.

"It's been a good partnership and an incredible experience," says Songy, who brainstorms with the students about devices that could help improve quality of life for him and others with disabilities.

"I have a blue-collar background, and always worked with tools in my hands," says Songy. "So I can get with these people, who can take an idea that I have, and they go discuss it, do research, and come back with the idea brought to life."



"Team TUPAC" members (from left) Austin Dobbins and Joshua Thieman demonstrate their portable patient lift to judge Don Gaver, chair of biomedical engineering.

This year Songy asked the students to develop a lift and sling system to help him transfer from a recumbent wheelchair to his bed.

Other designs this year include a hygienic changing lift for disabled school kids; an adjustable chair that will allow a student with a disorder of multiple joint contractures to access her workspace and books; a sleeping cot that will help nursing-home storm evacuees; and a device to help wheelchair users board and use a canoe.

Rice says the projects "enhance the student experience in several ways, including

how to communicate with clients and actually evaluating their product in use by their client."