

Humboldt State University News

[Press Releases: HSU Wins National Hydrogen Awards](#)



Humboldt State University faculty and students have won national recognition for their educational outreach and innovative development on behalf of clean-air technologies.

Dr. Peter Lehman, professor at HSU's Environmental Resource Engineering Department and director of the world-famous Schatz Energy Research Center, received the 2004 Robert Zweig Public Education Award April 28 from the board of directors of the National Hydrogen Association (NHA) at a conference in Los Angeles. He was honored for his "untiring efforts" to realize commercially viable hydrogen energy. They include Dr. Lehman's conception of the NHA's First Annual Student Hydrogen Design Contest, jointly with SERC's other director, Charles Chamberlain.

Dr. Lehman also was honored for his sustained support of the annual nationwide Lollapalooza music and fuel cell demonstration tour, which acquaints the general public with a working fuel cell system.

Recognized for technical aptitude and innovative design, a team of HSU students placed third in the inaugural design contest for a hydrogen fueling station, sponsored by the United States Energy Department and ChevronTexaco, as well as the NHA. The competition taps student potential and encourages students' direct involvement in the development of a new hydrogen economy.

The competing teams were required to submit a design proposal, with detailed drawings, for a hydrogen fueling station slated to open in March 2006. In keeping with the interdisciplinary nature of the contest, the HSU team comprised individuals from different departments and majors. Faculty Advisor Perry Grey-Reneberg and computer-aided design expert Gabe Adame are from the Industrial Technology Department. The team was led by senior Bryan Jungers and included Engineering Department undergraduates David Carter, Eric Zielke, Avram Pearlman, Douglas Saucedo, Terence Williams and Eric Stikes. The team's two graduate students were Juliette Bohn (International Development Technology) and Anand Gopal (Engineering). Several members are closely associated with the SERC.

Teams were allowed up to 10 students and one faculty advisor from both undergraduate and graduate degree programs from colleges and universities anywhere in North America. The panel of judges was selected from among industry practitioners and the federal Energy Department.

Capturing third place, the HSU team placed highest among all entries whose design involved the generation of hydrogen from purely renewable energy resources. In particular, judges lauded the HSU entry for its technical design and economic analysis.

HSU's team totaled a scant 1.5 fewer points than the winner, University of Victoria, Canada. Only five points of a possible maximum of 115 separated the top five teams from a total of 17 entries submitted by some of the best-known universities in North America. The other honorable mention teams were University of California-Davis, University of Missouri-Rolla and University of Toronto.

Dr. Lehman's award is named after the late Dr. Robert M. Zweig, a physician alarmed by air pollution's damaging effects on his patients' lungs. He championed clean-air technologies and led a movement to convert Riverside, California's fleet of public transit buses to run on hydrogen.

"As a recipient of this award, Dr. Lehman has made hydrogen education and outreach a priority, and has worked hard to develop initiatives that have resulted in significant progress in hydrogen technologies," said Jeffrey Serfass, NHA president.

Dr. Lehman recalled, "When I was a fledgling hydrogen researcher, Dr. Bob Zweig was one of my mentors. He was an untiring advocate for clean hydrogen energy and a wonderful person. To receive an award named in his memory is a special honor. I'm especially pleased to be recognized for my efforts to get students involved in the development of a hydrogen energy economy. It's the creativity and enthusiasm of today's students that will launch us into a clean-energy future."

Regarding HSU's performance in the premier design contest, Dr. Lehman said, "The team did an incredible job against competition from some of the best universities in North America. They have my hearty congratulations. They've brought national recognition and honor to themselves, HSU, and our community."

Divided into five sections, the competing submissions comprised a technical design; safety, economic and environmental analyses and a marketing/education strategy. Judges evaluated each section on a point system, using a variety of criteria including technical accuracy, completeness, clarity of writing and presentation, professionalism, economic viability, environmental performance and realism of design.

The awards were announced at the NHA's 15th Annual Conference and Hydrogen Expo USA in Los Angeles by U.S. Energy Secretary Spencer Abraham.

Jungers, the team leader, will be attending University of California-Davis in the fall to study civil and environmental engineering, with an emphasis in transportation engineering. He is a native of the Mojave Desert in southern California.

The NHA advocates hydrogen for its potential to reduce harmful emissions dramatically, and curb the United States' heavy dependence on overseas energy sources. Infrastructure for hydrogen technologies is developing in areas such as transportation, stationary generation and portable devices, according to the NHA.

Attention editors/news directors: a photo to accompany this press release can be downloaded from <http://news.humboldt.edu>.

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