Texas Tech wins Sandia MEMS design contest

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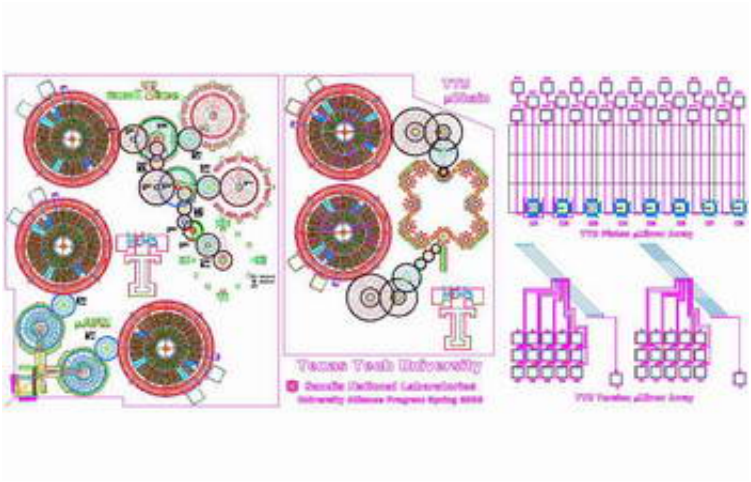

Students from Texas Tech Universityâ€™s Electrical and Computer Engineering Department have won this yearâ€™s annual MEMS (micro-electromechanical system) design competition sponsored by Sandia National Laboratories.
Said Texas Tech professor Tim Dallas, "Grades became secondary as students concerned themselves with turning ideas into designs."

Image: Students of the microworld â€" student-conceived MEMS devices from Texas Tech to be fabricated at Sandia facilities. (hi-res version)

Said contest judge and University of Utah professor Bob Huber,

â€œThe design tools and production facilities needed for a real learning experience in the MEMS field are too expensive for all but the wealthiest schools to provide. This program brings these facilities within reach of many more schools.â€? He says the students respond â€œwith some super designs.â€?

Texas Tech student lead Phillip Beverly and team advisor Tim Dallas have been awarded a trip to Sandia to present their ideas and tour the facilities at the national lab. Texas Tech has also been awarded membership in the international MEMS organization MANCEF.

In addition, student teams from the University of Oklahoma at Norman, Albuquerqueâ€™s Technical-Vocational Institute, and the University of North Carolina at Charlotte will have their designs fabricated for free, using the worldâ€™s most advanced silicon surface micromachining fabrication process, SUMMiT V.

The winning entry was a combination of four individual designs that included a micromechanical clock, a microchain, a torsion micromirror, and a micron-sized atomic force microscope. The design was chosen based on the use of Sandiaâ€™s SUMMiTâ€™s specific strengths, usefulness of the design for educational demonstrations, and uniqueness of design.

Institutions must be members of Sandiaâ€™s MEMS University Alliance for their students to participate. Membership is available to any U.S. institution of higher learning. Members receive course materials structured to help start or further develop their own MEMS program, licenses for Sandiaâ€™s cutting-edge MEMS design software, and other benefits. All University Alliance members, regardless of contest participation, receive MEMS parts to utilize in their curriculum. Ten schools currently are members of the Alliance.

For more information about the contest, contact Natasha Bridge at nabridg_AT_sandia_DOT_gov.

Source: Sandia National Laboratories