Solar Decathlon Offers Chance to Shine

By Karen Sanborn

The U.S. Department of Energy has selected Lawrence Tech as one of 20 schools, and the only Michigan university, to compete in the 2007 Solar Decathlon. The 20 teams, selected from Canada, Europe, and the United States, will be awarded $100,000 over two years to support the Solar Decathlon’s research goal of reducing the cost of solar-powered homes and advancing solar technology. “The next generation of leaders will have an opportunity to shine as they compete in the 2007 Solar Decathlon,” said Energy Secretary Samuel Bodman.

“Supplying enough clean, affordable energy to fuel the world’s growing economies is one of the great challenges we will face over the coming years. By helping expand the use of solar energy technologies, the participants will help meet that challenge.”

Charles M. Chambers, president of Lawrence Tech, said, “This is an incredible opportunity for our students to demonstrate their innovative problem-solving skills. We are in excellent company, and I am confident that our students and faculty will represent Lawrence Tech and Michigan well in this exciting competition.”

The Solar Decathlon is an international competition that brings student teams together to compete in designing, building, and operating highly energy-efficient, completely solar-powered houses. The teams will assemble their homes on the Mall in Washington, D.C., which will be open to the public. Contest rules require that each house generate enough energy from the sun to operate a household, a home-based business, and related transportation needs.

Winning “Green” Animal Shelter

By Karen Sanborn

Students in Chair of Architecture Ed Orłowski’s sustainable design class were challenged last semester to design a new Dearborn Animal Shelter to meet the Leadership in Energy and Environmental Design (LEED) certification guidelines.

Students spent a September afternoon touring the Ford Rouge Factory (also a LEED certified building), the current Dearborn Animal Shelter, and the new shelter site, located behind the Henry Ford Centennial Library. Using information gleaned on the tour, the students created their innovative designs and built models for an energy-efficient and sustainable, or “green,” animal shelter. The culmination of their work was a juried competition held on Dec. 21.

Eight student teams presented their designs to the five-member jury, with seniors Jim Droski and Dan Wells winning the competition. The jury complimented the straightforward nature of the winning team’s scheme, noting that it was the most comprehensive response to the competition’s multiple criteria of sustainability, architectural character, function, and buildability.

The team of Jason Robinson and Laura Roberts was given an Honorable Mention for their design and comfort of the house. The team also built a model of the design and was able to show the jury the function of the house. The jury also noted that the team had the most energy-efficient and innovative design – wins.

The Solar Decathlon takes place every other year; the 2005 winner was the University of Colorado. For more information, visit www.solardecathlon.org.

Feds to Fund CIMR Research

By Karen Sanborn

The soon-to-be-complete Center for Innovative Materials Research (CIMR) recently received two federal appropriations totaling $2.175 million from the Department of Transportation (DOT) and the Department of Defense (DOD).

“These appropriations will help advance Lawrence Tech’s pioneering research in advanced materials and establish CIMR as a national resource for research and testing of innovative materials,” said Lawrence Tech President Charles M. Chambers. “This research has significant commercialization potential and already has revealed applications in the defense, automotive, and transportation infrastructure industries.”

The Transportation appropriation of $1.175 million came in December 2005. It will fund research into innovative, cost effective bridge repair and bridge design. Civil Engineering Chair Nabil Grace will lead Lawrence Tech’s structural research program to develop an innovative design and construction approach for a longer-lasting box-beam bridge using carbon fiber reinforced polymer. It was made possible by the leadership of Michigan Rep. Joe Knollenberg, who included it in the 2006 Transportation, Treasury, Housing and Urban Development bill.

Box-beam construction is one of the most ubiquitous road designs in use for low profile spans over small streams and creeks throughout the country due to its ease of fabrication and installation. The majority of the bridges currently in use deteriorate due to corrosion of the steel reinforcement bars used in the concrete.

The CIMR research has the potential to offer extraordinary maintenance savings, while significantly prolonging the expected lifecycle of box-beam bridges.

Faculty and students at Lawrence Tech will collaborate on the proposed study with Diversified Composites, Inc., Pre-stressed System, Inc., and the Michigan Department of Transportation. The research will involve developing and
Weinstein Film Makes Impression

By Karen Sanborn

Melinda Weinstein, assistant professor of humanities, premiered her documentary film Lasting Impressions last semester and received two thumbs up from her hometown critics in Lumberton, N.C.

The 47-minute documentary, produced by Weinstein and hometown friend Drew Levinson, chronicles the history of Jews in Robeson County, N.C. It will debut at Lawrence Tech on Tues., Feb. 7, 12:30 – 2 p.m. in the Lear Auditorium, T429.

Weinstein and Levinson left Robeson County more than 20 years ago, but when their paths crossed again three years ago, they realized they both had wanted to leave a historical remembrance of their heritage in the county.

The movie explores life in Robeson County high schools, churches, restaurants, factories, tobacco warehouses, downtown thoroughfares, and dusty back roads. It captures the unique relationships among Jews and Christians as they work and play together.

The film reflects on the positive economic, political, and social contributions Jews made to the community and the county.

Frances Corbell

By Anne Adamus

Mechanical engineering staff member Frances Corbell died Dec. 8, 2005, at age 72, after a long and courageous battle with ovarian cancer. Ms. Corbell worked at Lawrence Tech for 12 years. As the mechanical engineering records coordinator, she worked closely with students to ensure that they had the credits they needed to graduate. She also processed the paperwork for part-time faculty in the department.

A dedicated and hard-working employee, Ms. Corbell was also involved in the faculty and staff campaign. “She will be sorely missed,” said Steve Howell, mechanical engineering chair.

Donations may be made to the Fran Corbell Scholarship Fund.

Motivating Young Minds to Master the Machine

By Lori Birman

Lawrence Tech’s Robofest 2006 is bigger and better than ever. The competition has added five new venues, including sites in California and Washington. Robofest will take place at 16 qualifying competition sites across the United States, Canada, and Korea. Team registration has begun and the 2006 Game Rules were announced Jan. 4. Teams can register now at www.robofest.net.

This year’s Robofest Game, “Toxic Waste Cleanup Challenge,” requires student teams to design, construct, and program robots to sense and search for objects, communicate with each other, map the robot’s location (localization), and navigate the partially unknown path. In addition, the robot must be built so that it can lift or push objects and climb down or up a ramp. The competition area lighting conditions will be a secret until the last minute, so students must master the skill of adjusting their programs to adapt to an unknown lighting environment.

Since it started in 2000, Robofest has grown to involve more than 165 teams and hundreds of students at venues across the United States and in other countries. This autonomous robotics competition for students in grades 5-12 is the only one of its kind to challenge students to compete using two fully autonomous robots that interact with each other. Robots must be programmed by the students – coaches are not allowed to help during the competition – to perform without remote controls and to sense and respond appropriately to the dynamic playing field.

Robofest also is the only competition that offers two venues for participants — games and exhibition. During games, teams accomplish robotics missions. During exhibition, students demonstrate any robotics project they create. The Robofest environment encourages students to have fun while learning computer programming, engineering, math, and science technology.

An “unknown mission,” announced the day of each competition, presents students with small changes in the game mission. Part of the playing field also is unknown, so students must be able to program their robots on-the-fly and to solve problems quickly and creatively.

“Robofest is a magnificent hands-on program that allows students to take real-world scenarios and solve them on their own,” said Patricia Zimnie, Robofest coach and the science/technology department chair at a middle school in the Oak Park School District.

“What I really like about the program is the fact that the students have to show off their last minute, so students must master the skill of adjusting their programs to adapt to an unknown lighting environment.

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“What I really like about the program is the fact that the students have to show off their skills without any adult intervention during the actual competition. I am allowed to offer them assistance and guidance when preparing for the competition, but when it comes to the big day, I walk away and they are on their own. To me, it is one of the greatest pleasures a coach can have when you watch your students use the knowledge and the skill they acquired to successfully complete the scenario.”

Robofest 2006 qualifying contests will take place in April and May with top teams qualifying to compete at the World Robofest 2006 Championship on May 13 in the Don Ridler Field House.

Coordinated by the Math and Computer Science Department at Lawrence Tech, Robofest needs volunteers to help during the competition. Contact Lori Birman at lbirman@ltu.edu if you’d like to help.

SigEp on the Move

By Brian Eady

This past semester, the men of Sigma Phi Epsilon hit the highway for their biannual SigEp road trip. Each semester, the chapter gets together and visits another SigEp chapter in the hope of strengthening chapter bonds and increasing networking opportunities. In the past we have visited the chapters at Bowling Green, Tri-State, Western, Ferris State, and many more.

This semester, however, we had the opportunity to visit our Ohio Eta chapter at Miami University. The brothers of the chapter were very hospitable and welcomed us into their beautiful brand new $1.7 million chapter house. As most chapters are, they were impressed by the strength of our smaller group here at Lawrence Tech and by how close we are as a chapter.

Overall, the road trip was a great success. Everyone had a great time throughout the weekend and most of us cannot wait until next semester’s trip. Who will it be next time? Who knows? No matter what, all of us are certain that it will be a great time.

It’s great to be a SigEp.
Fed Funds CIMR
(continued from page 1)
testing a new box-beam bridge system for single- and multiple-spans, and the structural components.

The $1 million from the DOD was allocated to CIMR for the research, development, and testing of carbon fiber composites and other advanced materials for defense applications.

Under the leadership of Michigan Rep. Sander Levin, the $1 million request was included in the 2006 DOD bill, which was approved by the House and Senate and signed by President Bush Dec. 30.

“Innovative materials are playing a growing role in the development of military technologies that protect our troops in the field,” said Rep. Levin. “It is important to develop these cutting-edge technologies here in Michigan because of our strong roots in research and development.”

Michigan Sen. Carl Levin advanced the project in the Senate, while Rep. Joe Knollenberg also provided key support for the DOD effort.

Lawrence Tech has partnered with the U.S. Tank Automotive Research, Development, and Engineering Center to develop materials to strengthen existing U.S. military structures and vehicles against terrorist attacks or natural disasters.

President Joins the Frat Pack

By Karen Sanborn

President Charles M. Chambers was inducted as an honorary member of Phi Kappa Upsilon at the fraternity’s house, the Castle, on Nine Mile Rd.

Chambers is the first Lawrence Tech president to be invited to be a member since President Russell Lawrence founded Phi Kappa Upsilon on the campus of Lawrence Institute of Technology in Highland Park.

Phi Kappa Upsilon’s purpose is to further the individual and collective welfare of its members by creating cultural, educational and fraternal advantages.

Joining the Fraternity

Charles M. Chambers (center) with Phi Kappa Upsilon members at the Castle after his induction ceremony.

Blue Devil Hockey All-Stars

By Scott Trudeau

Lawrence Tech’s Blue Devil hockey team contributed six members to the Michigan Collegiate Hockey Conference (MCHC) All-Star team: three forwards, two defensemen, and one goalie. The East team, comprised of players from Lawrence Tech, Northwood University, Calvin College, and Oakland University, won the game versus the West team, made up of players from Calvin College, Hope College, Muskegon Community College, and Lansing Community College, with a score of 15-13.

All home games are played at the Southfield Civic Center, located behind the new Southfield Library on Evergreen Rd.

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