Here’s What’s New under the Sun

If you saw Gato del Sol round the track and screech to a halt right in front of you, you might expect some kind of caped crusader to step out. Gato del Sol, named for the 1982 Kentucky Derby winner, was built by a cadre of current and former UK students, primarily from engineering. It took four years and about $100,000 to build.

It’s a true mix-and-match creation: It has shocks from a mountain bike, a steering wheel from a kid’s dragster, and various other donated parts, all wrapped in an aluminum frame and UK-blue fiberglass body.

Last May, the solar car competed in the Formula Sun Grand Prix in Topeka, Kansas, the first time a UK-built solar car had run in that race.

“We did well, I’d say, especially since we’re really new at this,” says Scott Stephens, a UK associate professor of mechanical engineering who advises the group of 20-plus students. UK placed second in the stock class in the three-day, 2.1 mile race, trailing only Kansas State University.

Solar cars are powered entirely by the energy of the sun, through photovoltaic solar cells that charge batteries. A 1,000-pound car runs at an average speed of 35 mph. Since there are limitations on how much energy can be generated and stored, solar cars must be energy-efficient to maximize the speed and distance the car can travel, which is accomplished by making the car as light as possible and minimizing wind resistance.

In 2003, the team’s rookie year in competition, the car was entered in the American Solar Challenge, a 10-day run from Chicago to California along famous Route 66. “Our inexperience showed,” says Stephens. “Due to overcast skies and mechanical problems, the Gato del Sol failed to finish the 140-mile qualifying race.”

But just being given the white flag to compete in the race is an accomplishment, Stephens says.

“This year there were four schools that didn’t pass what race officials call ‘scrutineering,’ so these schools...
didn’t get to ride at all. That’s fairly common, especially on your first try. When you go in, you have a list of requirements your car has to meet—braking and steering requirements, maneuverability. If the car isn’t solid and sound enough, you can’t even get into the race.”

A handful of UK students started this project four years ago, Stephens says, and that group has ballooned to over 25 current and former students.

Former students?

“Yeah, this has been most amazing to me. Each year we have UK grads from Lexmark and other businesses in the community who come back and work with this group. That’s how excited the students get about this.

“We always talk about teamwork in our curriculum and try to have team-building experiences in our engineering classes. On a project like this, with so many students, the mechanical people have to learn how to talk to the electrical people so that everything works. It’s teamwork with a capital ‘T.’”

Another benefit for students, he adds, is being able to apply classroom work to real-life situations.

“A lot of students go through the engineering program and think, ‘Well, there’s a lot of math here that I probably won’t ever use after I graduate.’ These kids find out that the math actually works. I think it really gives them new appreciation for what they’re learning in class.”

Gato Del Sol is a project heavily dependent on the kindness of strangers, Stephens says. Team sponsors that donate various auto parts (or cash) include SunPower Corporation, Ashland Specialty Chemical Company, Kentucky Transportation Center, Risse Racing Technology, Fifth Third Bank, EnerSys Inc., Hydro-Aluminum, and others.

“The ‘Big Blue Bomb’ is what we call it,” jokes Chris Morgan, a doctoral candidate in mechanical engineering and a veteran member of the solar team. “We’re still learning.”

—JW

UK’s Largest College Has a New Dean

Jay Perman wasn’t at all unhappy as professor and chairman of the Department of Pediatrics in the University of Maryland School of Medicine. He enjoyed his work. His colleagues were bright and hard-working, and Perman liked doing clinical rounds—helping less experienced doctors and talking with kids who had various health problems.

So why did he come to UK?

“I had begun to realize at Maryland that as chair of pediatrics what I really enjoyed most was the opportunity to create warm, well-functioning environments for smart people, which is really the job of a dean,” says Perman, who became dean of UK’s College of Medicine and the university’s vice president for clinical affairs last May. “I had evolved into a ‘dean mind-set,’ I realized. I loved it when a faculty member I had encouraged would come in and say, ‘I just got my paper accepted in Nature or Science,’ or a resident would come in and say, ‘I just had a wonderful rotation and wanted to thank you for the fact that the teacher was so good.’”

So when his name was put forward by outgoing College of Medicine dean Emery Wilson, now director of the college’s Area Health Education Center, Perman jumped at the chance.

“Truthfully, one of the reasons I wanted to come here is because I like places that have a lot of ambition, and UK certainly has that. I like places that aren’t full of themselves, that don’t think they’re already at the top of the mountain. I wanted to help move a college into new and significant directions, but first you have to have a place that wants to be moved. I loved the sparkle of ambition I saw here.”

As dean, Perman has the daunting responsibility for the leadership and management of the largest college at UK—21 academic departments, 12 centers, over 700 faculty, 1,800 staff members, 823 medical and graduate students, and 500 residents and fellows. How can one man accomplish such a thing? Is he planning on working 20-hour days?

“Yeah, I work hard, but it’s the usual secret. If you have a lot of good people around you, you can do all of that. The current leadership of those departments and centers is very good.”

Perman’s career has taken him from the Midwest to the East Coast to the West Coast and back east again. He received a Doctor of Medicine degree with Distinction in 1972 from Northwestern University in Chicago, completed a fellowship in pediatric gastroenterology at Harvard Medical School and at the Children’s Hospital Medical Center in Boston. Then from 1977 to 1984, he was in the pediatrics department at the University of California, San Francisco. After 12 years at Johns Hopkins University School of Medicine as professor of pediatrics and three years as chair of pediatrics at the Medical College of Virginia in Richmond, he went to the University of Maryland School of Medicine.

“In addition to being an accomplished investigator and an advocate for medical education, he is a consummate clinician who still practices pediatric gastroenterology,” says UK Executive Vice President for Health Affairs Michael Karpf. “He also is a respected leader who can help focus the faculty on achieving excellence in all three of their mandates—research, education and clinical care.”

—JW
National Leadership Award Named for Joseph Fink

The American Society for Pharmacy Law (ASPL) has recognized a University of Kentucky faculty member and administrator by naming a national leadership award for him. Joseph L. Fink III, senior associate vice president for research and economic development and UK College of Pharmacy professor, was recently honored by the creation of the Joseph L. Fink III Founders Leadership Award during the ASPL’s 30th anniversary observance. The award will be presented periodically to recognize individuals who have made substantial contributions to leadership and scholarship in the field of pharmacy.

The ASPL has more than 400 members from across the nation and several other countries. Fink was the founder and the first president of the organization.

Fink earned a degree in pharmacy at the Philadelphia College of Pharmacy and Science, and his Doctor of Law degree from Georgetown University Law Center in Washington, D.C. He joined the UK faculty in 1981.

Fink’s 250 scholarly works include books, monographs, chapters, and articles in the fields of law pertaining to pharmacy, pharmacists and pharmaceuticals, food and drug law, and health-care law. For more than 20 years, he has been an editor of Pharmacy Law Digest, the most widely used pharmacy law text and reference in the United States.

“I am particularly honored by the award coming from my professional colleagues and peers, and the fact that my wife, sons and their wives—plus my grandson—surprised me by coming to Seattle for the award presentation,” says Fink. —UK Public Relations

IHDI’s First Kevin Burberry Award Recipients Announced

The first Paul Kevin Burberry Award recipients have been announced by UK’s Interdisciplinary Human Development Institute (IHDI). The $500 awards, named in honor of an outstanding student at UK with disabilities, were presented to Tony LoBianco and Christy Howard-Potter.

Kevin, who was majoring in philosophy at UK, died in September 2003. He graduated posthumously with honors in May 2004. In addition to his studies, Kevin was involved in a variety of university and civic activities, including work as a consultant on a research project at IHDI.

“Kevin was such a shining star and source of inspiration for all people,” says Harold Kleinert, IHDI executive director. “We are excited to be able to offer this award as a tribute to Kevin’s accomplishments not only in the classroom, but also in life.”

The award will be given annually to a student who has significant IHDI involvement—as a research assistant, a practicum student or a student in the graduate certificate program. Candidates must demonstrate a strong commitment to people with disabilities through university and community projects and experiences, demonstrate the leadership qualities exemplified by Burberry’s own life, and demonstrate a commitment to academic excellence. This year’s selection committee, which included Burberry’s parents, Clyde David and Susan, decided to grant two awards due to the outstanding field of applicants.

Tony LoBianco, who earned a Ph.D. in political science from UK in 2001, recently received his master’s degree in public health. At IHDI he was employed with the Pre-service Health Training Project, where he worked in collaboration with Kevin. LoBianco also produced interactive multimedia training for health-care professionals so they can more effectively serve and communicate with people with developmental disabilities.

“I am honored to be thought of as someone who embodies some of Kevin’s qualities, and am thankful to have had the opportunity to know him,” says LoBianco.

Christy Howard-Potter recently received her master’s degree in social work at UK. During her four years at IHDI, she was involved in more than nine research, service and product-development activities. Her work included development of a community resource manual for families
and consumers, which is distributed statewide in English and in Spanish.

“I am very honored to receive the award alongside my co-worker Tony LoBianco,” says Howard-Potter. “To me, Kevin epitomizes sheer determination and illustrates the concept that you really can do anything you set your mind to. He continues to be an inspiration, and I am grateful to have had the pleasure of meeting him.”

IHDI works to improve life opportunities for persons with disabilities and their families through interdisciplinary training, research, technical assistance, community education and information dissemination.

To read more about Kevin, see the Spring 2001 Odyssey feature titled “Technology with the Human Touch” at www.research.uky.edu/odyssey/spring01/humantouch.html.

Kevin Burberry 1968-2003

KGS a National Leader in Digital Mapping

The Kentucky Geological Survey (KGS) has reached a milestone in the history of geologic mapping in the United States. In a comprehensive eight-year project, KGS has converted to digital format 707 printed geologic quadrangle (GQ) maps for Kentucky.

“In 1978, we became the first state of significant size in the nation to achieve complete detailed geologic map coverage,” says KGS director Jim Cobb. “We are now the first state to have complete digital geologic map data for the entire state. This provides an incredible foundation of geologic information that is easily accessible, inexpensive and widely distributed to private citizens, industry, government officials, and academics.” The process of converting the original printed GQ maps into digital format began in 1996.

The conversion of the paper maps into a digital format has numerous benefits, Cobb says. Many of the original GQ maps are out of print. Also, the digital format allows changes to be readily made to the original map data. This saves time and money because it would be prohibitively expensive to print revised maps.

Digital data from each quadrangle can be distributed easily to users on CD or through the Internet, making the data much more accessible. The digital format also allows users to manipulate and analyze the data in a variety of computer applications and is particularly useful in geographic information systems.

—UK Public Relations

New Water Institute Director Named

Lindell Ormsbee, professor of civil engineering at the University of Kentucky, has been named director of the Kentucky Water Resources Research Institute (KWRRI) at UK. He has served as associate director of the institute since 1995.

Ormsbee has been a leading researcher on the environmental cleanup at the Paducah Gaseous Diffusion Plant, where groundwater contamination was discovered in the late 1980s. His work has generated more than $3 million in research projects from the National Science Foundation, the U.S. Geological Survey, the U.S. Department of Energy, and the Environmental Protection Agency.

“Lindell Ormsbee has an extraordinary wealth of knowledge and a deep well of curiosity regarding water resources. These qualities make him the best choice for the leadership of this institute, whose work is so critical to the commonwealth and its residents,” says Wendy Baldwin, UK’s executive vice president for research.

KWRRI stimulates water-related environmental research, assists academic units in conducting undergraduate and graduate education in environmental areas, and develops statewide interactions among faculty and research staff, and the private and public sector.

—UK Public Relations