

Gifts Augment Engineering

The School of Engineering is deeply grateful to our generous friends and alumni, whose support during the year has allowed us to strengthen our recruitment and retention of outstanding undergraduate and graduate students and to expand our educational outreach. In addition to the gifts (*page 23*) from Michael Cantor, Samuel Ewing, Jr., and Dominick Pagano, the School was honored to receive:

A donation of ExxonMobil stock valued at \$20,000 from Robert and Beatrice Mastracchio. The gift will augment the Robert and Beatrice Mastracchio Endowed Scholarship for academically gifted graduate students. Mr. Mastracchio is a School of Engineering alumnus (B.S.E. '64 and M.S. '66, Chemical Engineering) and a Founding Fellow of the University of Connecticut Academy of Distinguished Engineers (2003). Mr. Mastracchio was profiled in the 2003 issue of the Chemical Engineering magazine, *Principles*. This profile (*page 15*), may be found on the Chemical Engineering Department website at www.engr.uconn.edu/cheg/pdf/principles2003.pdf.

A donation of IBM stock valued at \$26,000 from Walter Rose, which was used to enrich the Walter M. Rose Endowed Scholarship. Mr. Rose is a 1949 graduate who earned his bachelor's degree in Mechanical Engineering. He is a Founding Fellow of the University of Connecticut Academy of Distinguished Engineers (2003). A brief profile for Mr. Rose appeared in our last issue of *Frontiers* and also appears on our website at www.engr.uconn.edu/SoE/soe_adehof.htm.

A donation of \$5,079 from Isabelle Farrington to augment the Harold P. Farrington Engineering Scholarship for deserving undergraduate students.

Outreach Activities Inspire Middle School Students

Under the guidance of Director Kevin McLaughlin, the Engineering Diversity Program carried out a variety of outreach activities throughout the spring intended to introduce engineering to a diverse pool of students.

Mr. McLaughlin, (B.S. Chemical Engineering, '83) a former science teacher at E.O. Smith High School in Storrs, accompanied by 11 undergraduate and graduate students from under-represented populations, taught seven afternoon sessions throughout the spring at Hartford's Maria Sanchez Elementary School. Students in the fifth and sixth grades participated in hands-on exercises in which they constructed a solar/alternative energy house from a kit and completed related experiments. The fun afternoons also allowed children from an inner-city community to meet and spend time with college-age role models, including three who grew up in Hartford.

In January, fourth and fifth graders from Plainfield Middle School enjoyed two special classes in engineering taught by Mr. McLaughlin, in which they built small electric motors and saw electricity and magnetism demonstrations that helped them understand the basic principles of motor design.

The Pre-Engineering Program (PEP), now in its 16th year, brought students in grades seven through nine to campus each of seven Saturdays, where they were instructed and mentored by 17 undergraduate and graduate engineering students from underrepresented populations. Working in teams, the participating eighth graders built and programmed robots incorporating Lego's Mind Storm bricks. In April, the EDP staff also hosted the School of Engineering's ninth Multiply Your Options convention, during which more than 200 8th grade girls participated in roughly 44 workshops held in the UConn Student Union.

In addition, Mr. McLaughlin invited 15 top seventh grade science and math students from New Britain's Roosevelt Middle School to visit Storrs for a unique hands-on learning experience involving pennies. They chemically removed oxide films from the surface of pennies using salt (sodium chloride) and vinegar (acetic acid); mechanically polished pennies using sodium bicarbonate; and chemically deposited zinc onto the surface of a "shiny" penny after which one of the "silver" pennies was warmed on a hot plate until it turns gold (brass) from the thermal diffusion of the zinc into the copper layer below. Mr. McLaughlin remarked, "The kids really like making 'gold' and 'silver' pennies even after you have explained what really happened."

