

Trustee **Ed Esber** funds autonomous robotics program

Autonomous robotics programs at The Case School of Engineering will be enhanced and expanded thanks to the generous pledge of \$100,000 from Edward M. Esber, Jr. CIT '74, and his wife, Peggy Esber.

The gift will be added to an endowment fund the couple established in 1991. The Esbers decided to direct their support to two specific areas in this field: autonomous robotics classes offered by the Electrical Engineering and Computer Science Department, and the LEGO® Robot Competition, an outreach to Cleveland area high schools held during Engineers Week.

Autonomous Robotics (ECES 375/475) encompasses an introduction to the design, construction, and control of autonomous mobile robots. The first half of the course consists of focused exercises on mechanical construction with LEGO® blocks, characteristics of sensors, motors and batteries, and control strategies for autonomous robots. In the second half of the course, students design, build, and program their own complete robots that participate in a public competition. All work is performed in groups. Biologically inspired approaches to the design and control of autonomous robots are emphasized throughout.

One of the most popular classes at CSE, Autonomous Robotics accommodates 30 students a semester (10 teams of 3). Students receive a standard kit that includes all materials that will be used (total cost between \$400-500). Funding this program has been a challenge. Private donations many of which are from former students of the class help in this effort. Support from the Edward and Margaret Esber Endowment Fund will help to offset much of the cost of the class, and ensure that CSE students will benefit from it for years to come.

During the annual Engineers Week festivities, CSE invites area high schools to participate in a competition where teams design, build, and program an autonomous robot. The LEGO® Robot Competition has become a favorite part of the week's events. CSE supplies the high schools with the kits to produce the robots. Mr. and Mrs. Esber's gift also helps to support this program, allowing area high school students to participate in the event and opening their eyes to engineering.



Mr. Esber is excited about the scope of the program. "When you can catch people either early in career or life and create an environment where people are motivated and inspired, their impact on society is leveraged." Robotics is an area he's been interested in for years and he has a young son who is fascinated by it."

Mr. Esber is a member of the CWRU Board of Trustees and resides in Los Altos Hills, California with his wife Peggy and their three children, Dianne, Paul, and Alex.

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