

Faculty

Carnegie Mellon has approximately 1,200 full-time and 170 part-time teaching and research faculty members with a student-faculty ratio of 10:1. Approximately 96 percent of faculty members have a Ph.D. or equivalent degree in their field. These professors, instructors and lecturers are in the classroom, lab, studio or work-place creating new knowledge on a daily basis with their students. Ninety-nine percent of all undergraduate classes are taught by faculty; more often than not, they teach both undergraduate and graduate courses. Undergrads have the opportunity to work on ground-breaking research projects with these award-winning faculty members, who frequently include Nobel Laureates as well as top U.S. government advisors.

The faculty at Carnegie Mellon includes some of the nation's most accomplished scientists, scholars and artists. Here are just a few of the world-changing pioneers who work and teach on campus:

Illah Nourbakhsh and **Randy Sargent**, in collaboration with scientists at NASA's Ames Research Center, have built a low-cost robotic device that enables any digital camera to produce breathtaking gigapixel panoramas, called GigaPans. **Sheldon Cohen** is one of the world's most cited authors in the areas of psychology/psychiatry and social sciences. His work focuses on the roles of stress and social support systems in health and well-being.

Kiron Skinner holds a number of key positions in Washington, D.C. She was a member of former Defense Secretary Donald Rumsfeld's Defense Policy Board and was its representative on Sec. Rumsfeld's Defense Practice Implementation Board. **George Loewenstein** is among the founding fathers of decision science, a field that



was pioneered at Carnegie Mellon by the late Herbert A. Simon. Loewenstein's ground-breaking research examines the influence that emotions and other psychological factors have on economic decision-making.



Barbara MacKenzie-Wood traveled to South Africa for three weeks to create and lead one of the first theater programs for World Camps, an international organization that assists African children affected by AIDS.

Tiziana Di Matteo's research interests focus on studying black holes. Her research encompasses a wide range of topics, including theoretical studies of the interplay between black hole growth and galaxy



formation. **David Yaron** developed the Chemistry Collective, a project in the NSF's National Science Digital Library and the Pittsburgh Science of Learning Center, that supports a community of innovative instructors interested in improving chemistry education through interactive and engaging online activities.

Bahar Biller, focuses on the development of new simulation methodology of global supply chains, operational risk modeling and queuing theory. **Linda Babcock** provides expertise in negotiation and conflict resolution to numerous public sector, not-for-profit organizations and private sector organizations. Her work on women and negotiations, studying the workplace intersections of economics and psychology, has been discussed in hundreds of newspapers, magazines and television shows in the United States and abroad.

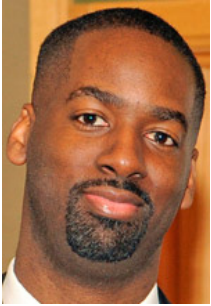
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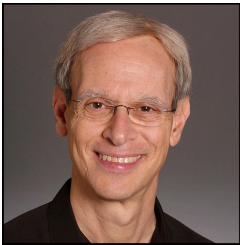
JENDAYI FRAZER RECEIVES LIBERIAN HUMANITARIAN AWARD

Carnegie Mellon University Distinguished Service Professor Jendayi Frazer, a leading architect of U.S.-Africa policy over the last decade, has been awarded the Distinction of Dame Grand Commander in the Humane Order of African Redemption by Liberia's President, Ellen Johnson Sirleaf. The award, given for exemplary humanitarian work, was presented to Frazer for her work in the U.S. government to end Liberia's civil war and restore peace and democracy to the country. She received the award, one of the most prestigious honors that the president can bestow, as part of Liberia's 163rd Independence Day celebration on July 21.



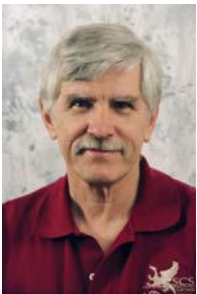
PROFESSOR C. FRED HIGGS III AWARDED NEWKIRK AWARD

Carnegie Mellon University's C. Fred Higgs III has won the prestigious 2010 Newkirk Award from the American Society of Mechanical Engineers (ASME) for his cutting-edge research in particle flow related tribology. Tribology, the study of interacting, moving surfaces, is an important field to a variety of industries, including the semiconductor and energy sectors and the biomedical arena. The award, which consists of a \$1,000 honorarium and a certificate, was presented during the October 2010 International Joint Tribology Conference, in San Francisco.



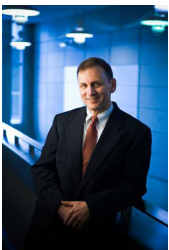
PROFESSOR ROBERT SIEGLER AWARDED A \$10 MILLION GRANT FROM THE DEPARTMENT OF EDUCATION

The Institute of Education Sciences, a research branch of the U.S. Department of Education, has awarded a \$10 million grant to Carnegie Mellon University Professor Robert Siegler. The grant will fund a five-year research and development center aimed at understanding the difficulties students have in math. Siegler, along with two other colleagues, will run the Center on Improving Mathematics Instruction for Students with Mathematics Difficulties, which will be administered at the University of Delaware.



PROFESSOR RALPH HOLLIS NAMED A RECIPIENT OF 2010 R&D 100 AWARD

A magnetic levitation haptic interface invented by Carnegie Mellon's Ralph Hollis, a professor in the Robotics Institute, is the recipient of a 2010 R&D 100 Award, presented by R&D Magazine to recognize the 100 most technologically significant products of the past year. The maglev haptic interface, which has been under development in Hollis' lab since 1997, enables computer users to manipulate or interact with virtual or remote environments using their sense of touch. It provides highly realistic feedback so users can perceive textures, feel hard contacts and notice even slight changes in position. Users are working on applications for controlling remote robots and as a simulation technology for dental training and biopsy needle insertion.



DAVID DZOMBAK TO CHAIR NEW NATIONAL RESEARCH COMMITTEE

Carnegie Mellon University's David A. Dzombak has been named chair of a new National Research Council (NRC) Committee, which will provide advice to the U.S. Army Corps of Engineers on scientific, engineering and water resource issues. Dzombak said the committee will develop a series of reports to help the Army Corps of Engineers anticipate and prepare for emerging water resource challenges. In addition to working with the Corps, the committee will work with experts and representatives from other federal agencies, including U.S. congressional staffers, state governments and the private sector.