I investigate Human body language. There is plenty of evidence both from anthropology and psychology that people communicate very much with their body. For this purpose I use visual sensors in the environment to capture the body motion and I have a couple of students who are trying to interpret the motion in this body language. We use the tele-immersive environment since we can communicate locally but also geographically distributive.

We also have wireless technology connected with various sensors, motion sensors (accelerometers and gyros) but also biosensors attached to the body (two arms, two legs and the waist) and we use this body network of sensors to interpret the motion of the person and their physical activity. We have applied this technology to study how fast/slow people walk uphill/downhill, where is pollution (using pollution measures of the location) and we are beginning to look at two people interaction from dynamic point of view.

References
http://www.eecs.berkeley.edu/Faculty/Homepages/bajcsy.html
http://www.cs.berkeley.edu/~bajcsy/

Biography
Dr. Ruzena Bajcsy ("buy chee") was appointed Director of CITRIS at the University of California, Berkeley on November 1, 2001. Prior to coming to Berkeley, she was Assistant Director of the Computer Information Science and Engineering Directorate (CISE) between December 1, 1998 and September 1, 2001. As head of National Science Foundation's CISE directorate, Dr. Bajcsy managed a $500 million annual budget. She came to the NSF from the University of Pennsylvania where she was a professor of computer science and engineering.

Bajcsy is a pioneering researcher in machine perception, robotics and artificial intelligence. Dr. Bajcsy has done seminal research in the areas of human-centered computer control, cognitive science, robotics, computerized radiological/medical image processing and artificial vision. Dr. Bajcsy received her Master's and Ph.D. degrees in electrical engineering from Slovak Technical University in 1957 and 1967, respectively. She received a Ph.D. in computer science in 1972 from Stanford University. In 2001 she became a recipient of the ACM A. Newell award. In the November 2002 issue of Discover she was named to its list of the 50 most important women in science. In April of 2003 she received the CRA Distinguished Service Award and in May 2003 she was nominated to become a member of the President's Information Technology Advisory Committee.