



DEPARTMENT OF MECHANICAL ENGINEERING Purdue School of Engineering and Technology

SPRING 2003 SEMINAR SERIES

Date: **Thursday, March 27, 2003**
Time: **11:00 am - 12:00 pm**
Room: **SL 165**

Reception at 10:45 am (cookies and refreshments served)
Everyone is invited

Using SmartSpaces Technologies in Informal Learning Environments

Dr. Polly Baker

*Distinguished Scientist and Director
Visualization and Interactive Spaces Lab, IUPUI*

Abstract. Computing technology is rapidly becoming smaller and cheaper, suggesting that computing capability can be embedded throughout the physical world in which we live. As we populate a physical space with computing devices, we can create rooms or areas that are aware of our presence, aware of our activities, and proactive in assisting us with our tasks. This talk will describe hardware and software technologies used in creating smart spaces. Possible applications for smart spaces will be discussed, with a special emphasis on informal learning environments, such as museums and science centers, that can use interactive computer graphics to support exploration and learning.

This talk will also provide an overview of the activities of the Visualization and Interactive Spaces Lab. The Lab is one of Indiana University's Pervasive Technology Labs. The Pervasive Technology Labs, funded through an initial \$30 M grant from the Lilly Endowment, are research and innovation centers exploring the potential and the challenge related to the ubiquitous presence of computing capability. The Pervasive Technology Labs also seek to contribute to the development of the information technology economy in Indiana through technology transfer, commercialization, and research and development partnerships with industry.

About the Speaker. Dr. Baker is Distinguished Scientist and Director of the Visualization and Interactive Spaces Lab, one of Indiana University's Pervasive Technology Labs. She is also Associate Professor in the Computer Science Department and with the School of Informatics on the IUPUI campus. Dr. Baker combines advanced study in computer science with a continuing interest in psychology, human factors, and learning. She is especially interested in exploring the design and application of computer-based, interactive, visual environments for data exploration and learning. Before coming to Indiana, Polly was with the National Center for Supercomputing Applications (NCSA) at the University of Illinois, where she worked with scientists and research groups to define and develop custom solutions for advanced problems in scientific visualization. While at NCSA, she led the center's Visualization and Virtual Environments group, and she directed the Data Mining, and Visualization Division. Dr. Baker is also the author of several widely used texts in computer graphics. Polly has a Bachelors degree in Psychology from Cornell University, a Masters in Education from Syracuse University, and a PhD in Computer Science from the University of Illinois.