

Computer Science & Electrical Engineering Seminar Series

Recognition Technology for Aging in Place
Dr. Marjorie Skubic, University of Missouri-Columbia

Friday, Oct 3rd, 2008 in FH 557 at 2:00 pm

Americans are living longer and more fulfilling lives, and they desire to live as independently as possible. But independent lifestyles come with risks, such as debilitating falls and deteriorating health resulting from inadequate care. To address these issues, researchers are developing "smart home" technologies to enhance residents' safety and monitor health conditions using sensors and other devices. In particular, the continuous assessment of physical function is a key indicator of initial decline in health and functional ability. Identifying and assessing problems while they are still small can provide a window of opportunity for interventions that will alleviate the problem areas before they become catastrophic.

In this talk, Dr. Skubic will describe ongoing interdisciplinary research to investigate the use of sensor technology and automated reasoning to provide early identification of problems in functional ability. The sensor network under development includes a variety of sensors such as motion detectors, chair sensors, a temperature sensor, and a bed sensor. In addition, a camera network is being developed to incorporate additional information while using strategies to preserve privacy. The network is being tested in TigerPlace, an aging-in-place facility designed to help residents manage illness and impairments and stay as healthy and independent as possible.

Dr. Marjorie Skubic, Ph.D.



Marjorie Skubic received her Ph.D. in Computer Science from Texas A&M University, where she specialized in distributed telerobotics and robot programming by demonstration. She is currently an Associate Professor in the Electrical and Computer Engineering Department at the University of Missouri-Columbia with a joint appointment in Computer Science. Dr. Skubic has over 100 publications and has received funding from the National Science Foundation, the Naval Research Lab, the National Geospatial Intelligence Agency, the U.S. Army, and the U.S. Administration on Aging. In addition to her academic experience, she has spent 14 years working in industry on real-time applications such as data acquisition and automation. Her current research interests include sensory perception, computational intelligence, spatial referencing interfaces, human-robot interaction, and sensor networks for eldercare. Dr. Skubic has recently established the Center for Eldercare and Rehabilitation Technology at the University of Missouri and serves as the Center Director for this interdisciplinary team.