

PhD Student Receives VA Grant to Continue Research on Dementia-Related Wandering

TAMPA, Fla. (October 19, 2009) – Sadia Ahmed, a doctoral student under the direction of **Dr. Huseyin Arslan**, associate professor of electrical engineering, has received a \$36,000 grant from the Veteran's Administration for "Home Evaluation of Visual Exit Barriers in Dementia-Related Wandering."

Dementia-related wandering is a serious problem for Alzheimer's patients as well as for their care givers. In the advanced stages of wandering, the patient may exit the residence without the knowledge of the caregivers, sometimes resulting in serious injury or the patient getting lost. Dr. Arslan believes it is important to use simple barriers at the exit door locations to prevent the patient from exiting the home. The purpose of this project is to *evaluate* the effect of simple visual exit barriers on Alzheimer's patients in a home setting.

"As an ultra-wideband (UWB) technology researcher it has been great to actually see how the fruits of our research is benefiting mankind," said Ahmed. "In this case, the UWB positioning characteristics are applied to determine the wandering behavior of dementia-related patients in the presence of visual exit barriers. UWB technology is hoped to bring revolutionary changes in this field."

The ultra-wideband (UWB) technology is one of the key components of this project. UWB location or positioning characteristics will be utilized to determine the position of the Alzheimer's patient near the exit door in the presence and in the absence of the visual barriers. The UWB sensors will be placed in the patient home near the exit door and the patient along with the caregiver will be wearing the UWB tags for an extended period of time.

The University of South Florida is one of the nation's top 63 public research universities and one of only 25 public research universities nationwide with very high research activity that is designated as community engaged by the Carnegie Foundation for the Advancement of Teaching. USF was awarded \$380.4 million in research contracts and grants in FY 2008/2009. The university offers 232 degree programs at the undergraduate, graduate, specialist and doctoral levels, including the doctor of medicine. The USF System has a \$1.8 billion annual budget, an annual economic impact of \$3.2 billion, and serves more than 47,000 students on institutions/campuses in Tampa, St. Petersburg, Sarasota-Manatee and Lakeland. USF is a member of the Big East Athletic Conference.

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