

Two Engineering Professors Receive 2009 Outstanding Research Achievement Awards



Dr. Bhethanabotla



Dr. Ligatti

Tampa, Fla. (October 19, 2009) – Dr. Venkat Bhethanabotla, professor and chair of the Chemical and Biomedical Engineering department and Dr. Jarred (Jay) Ligatti, assistant professor of Computer Science and Engineering are the recipients of the 2009 Outstanding Research Achievement Awards, announced Dr. Karen Holbrook, vice president for Research and Innovation.

Dr. Bhethanabotla has played a major role in the discovery and development of surface acoustic waves for the simultaneous sensing of multiple biomarkers, while minimizing inaccuracies caused by non-specifically bound proteins. He received NSF funding in 2008 for a biosensor based on these principles to detect ovarian cancer biomarkers. He has been actively researching acoustic wave sensors for chemical and biological applications for the past five years. His initial work resulted in a hydrogen sensor technology which was funded by NASA and NSF. The resultant technology has been patented and was licensed by USF in 2007.

"Our results for the removal of non-specifically bound proteins using acoustic waves can improve sensitivity and selectivity of any biosensor, irrespective of the transduction principle utilized," said Dr. Bhethanabotla.

Dr. Ligatti's research group investigates foundations of computer security. The group analyzes mechanisms for preventing attacks, so they can better understand the strengths and limitations of those mechanisms. When a new attack surfaces the most efficient mechanisms known to prevent that kind of attack are deployed. The USF computer security research group also creates open-source tools that make it safer and more convenient to deploy mechanisms for preventing attacks.

"I'm honored to receive this recognition and grateful for all the support the Department of Computer Science and Engineering, College of Engineering, and University have given me," said Dr. Ligatti.

Dean John Wiencek remarked, "In view of all the excellent research that is conducted throughout the USF enterprise, I am especially proud of the accomplishments of professors Bhethanabotla and Ligatti.

They represent the very best of USF's research engine. Their research will have a significant impact on medical diagnostics and securing the privacy of data. USF is fortunate to have such great faculty as Venkat and Jay."

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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