Electrical Engineering Doctoral Students, Alexander and Boone, Receive NSF IREE China Award

Tampa, Fla. (March 2, 2010) Frank Alexander, Jr., and Justin Boone, first-year PhD students in the Department of Electrical Engineering, have been selected as National Science Foundation International Research & Education in Engineering (IREE) China program awardees. They are among only 50 students chosen from a nationwide pool of applicants for this NSF-funded program. They are members of the Bio-MEMS and Microsystems Research Group at USF.

The IREE Program was initiated by the National Science Foundation (ENG/EEC) in 2006 to promote enhancement of global competency of 21st century engineering professionals and development of collaborations with engineering researchers abroad, providing students with opportunities to experience the life and culture of a another country. The 50 students (20 undergraduate and 30 graduate students) that receive the IREE in China award will spend 10-12 weeks working on frontier engineering research projects in university, industry, or government labs in China.

Frank's research aims to design a MEMS-based sensor device with optimal interdigitated electrode (IDE) geometry that utilizes bioimpedance measurements to characterize sampled human cells as cancerous or normal. Justin, collaboratively working with the Center for Wireless and Microwave Information Systems (WAMI) group, is exploring new designs for THz MEMS antenna that can be seamlessly integrated with diodes to form large arrays. Both students will present conference papers during the Spring 2010 semester.

Frank and Justin received their BS degrees in Electrical Engineering from Southern University and A&M College in Baton Rouge in May 2009, where they participated in the Louisiana Alliance for Minority Participation (LS-LAMP) and the Timbuktu Academy. They are participants in the NSF Florida-Georgia LSAMP Bridge to the Doctorate program. The USF program is funded by the National Science Foundation and USF (Provost's Office, Office of Research & Innovation, Colleges of Engineering, Marine Science, Arts & Sciences, and Medicine).

Both students are 2009 recipients of NSF-Bridge to Doctorate Fellowships. The NSF-funded programs seek to increase the number and quality of minority students earning undergraduate and graduates degrees in science, technology, engineering, and mathematics (STEM) disciplines.

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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