

Engineering Students Awarded Outstanding Dissertation Awards from USF Graduate School

Tampa, Fla. (November 20, 2009) – The Graduate School at USF has recognized **Praveen Sekhar** and **Vishnuteja Nanduri** with 2008-2009 Outstanding Dissertation awards. Dr. Sekhar, an electrical engineering doctoral student, worked with major professor **Dr. Shekhar Bhansali**. Dr. Nanduri, an industrial and systems management engineering doctoral student, worked with major professor **Dr. Tapas Das**.

Dr. Sekhar's dissertation titled, "*Nanomanufacturing of Silica Nanowires: Synthesis, Characterization and Applications*," investigated selective and bottom-up manufacturing of silica nanowires on silicon and its applications. The use of silica nanowires as a (a) multi-modal biosensing platform, (b) erbium sensitizer for efficient optical telecommunication and (c) filler for the synthesis of mechanically robust polymer nanocomposite was demonstrated.

"I am delighted on winning this award and would like to dedicate it to my family and spouse," said Dr. Sekhar. "I thank the constant encouragement from my mentor and the committee members. The award enables me to represent USF globally as a leading institution in interdisciplinary research."

Dr. Shekhar is a post-doctoral fellow in the Materials, Physics and Applications Division at the Los Alamos National Laboratory.

Dr. Nanduri's dissertation titled "*Generation Capacity Expansion in Restructured Energy Markets*" develops decision support models for power generators and policy makers to expand generation capacity to meet the growing electricity demand in restructured energy markets. The dissertation formulated a game-theoretic model to represent the competition among generation investors in various interrelated markets. To solve this complex game-theoretic model, a reinforcement learning-based algorithm that obtains the Nash equilibrium solutions was developed. The research resulted in three refereed journal publications, a refereed conference proceeding, multiple invited national/international conference presentations, and a Best Paper award in the 2007 INFORMS Annual Conference in Seattle.

"I'm honored to be one of the recipients of this prestigious award," said Dr. Nanduri. "I congratulate the other winners and all the nominees. I wish to thank my advisor Professor Tapas Das, who is the best mentor any graduate student could hope for. I also want to thank all the professors in my dissertation committee and my friends and family. My graduate education at USF has helped me immensely. The warm, friendly, diverse, and intellectually nourishing atmosphere in the Industrial Engineering Department and USF made it a great place to grow as a person and as a researcher. I am proud to say that I am a USF Alum."

Dr. Nanduri received both his M.S. and Ph.D. in Industrial Engineering from the University of South

Florida. He is an assistant professor on the tenure-track in the Department of Industrial Engineering at University of Wisconsin-Milwaukee.

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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