UNIVERSITY OF CENTRAL FLORIDA

UCF Hires First National Academy of Engineering Scientist

ORLANDO, Sept. 7, 2007 -- The University of Central Florida has hired its first National Academy of Engineering member, a distinction that elevates the academic prestige of the university and may pave the way for additional academy members on campus.

Marwan Simaan, the Bell of PA/Bell Atlantic engineering professor at the University of Pittsburgh, will join UCF in the spring as the Florida Chair and a distinguished professor of Electrical Engineering and Computer Science. He brings to the university extensive research strengths in the areas of control and signal processing.

“My work is highly interdisciplinary in nature,” said Simaan, who was elected to the National Academy of Engineering in 2000. “I’ve worked with engineers from almost all engineering fields, as well as physicists, mathematicians, computer scientists and economists.”

Some of his recent research includes a National Science Foundation project to develop control systems for mechanical devices that assist the heart in pumping blood for patients awaiting transplants and the control and optimization of aerial military operations by unmanned vehicles funded by the Defense Advanced Research Project Agency.

Simaan said he is eager to start at UCF and work with colleagues in the College of Engineering and Computer Science and researchers at the College of Medicine and the Institute for Simulation and Training.

Election to the academy is recognized as one of the highest professional distinctions awarded to an engineer.

“Our success in recruiting such an accomplished faculty member is a testament to the strides we have made in advancing the quality of education and research at UCF,” President John Hitt said. “Working with Dr. Simaan will be a great opportunity for our students and faculty, and we are eager to support his efforts to help patients awaiting heart transplants lead longer, more comfortable lives.”

Because academy scholars are elected only through nominations of other members, the presence of an academy member at UCF could lead to other UCF professors earning such recognition in the future, said MJ Soileau, UCF's vice president for Research and Commercialization.

“We have many scholars on our faculty who are viable candidates for membership in the academy,” Soileau said. “Having a member on our faculty will certainly help in promoting these top scholars.”
Of the academy's 1,945 U.S. members, only 7 percent are located in the South Atlantic region, which includes Florida.

Members are selected for “important contributions to engineering theory and practice, including significant contributions to the literature of engineering theory and practice,” and those who have demonstrated “unusual accomplishment in the pioneering of new and developing fields of technology.”

Simaan was recognized for the development of signal processing techniques for imaging the Earth's subsurface zone. The process involves getting a more precise picture of what is under the earth's surface by sending shock waves from sources on the surface and analyzing the echo signals that come back. Simaan's work allowed for the interpretation of some of the weakest information bearing signals in the return echoes, providing new details about the Earth's layers directly beneath the surface.

“The arrival of Dr. Simaan serves as a milestone for how far we have come as a College of Engineering and Computer Science,” Dean Neal Gallagher said.

Since 1976, Simaan has worked at the University of Pittsburgh, where he was named Bell of PA/Bell Atlantic Professor in 1989. He is a fellow of the Institute of Electrical and Electronics Engineers, American Association for the Advancement of Science and the American Society for Engineering Education. Simaan received a bachelor's degree from the American University of Beirut, a master's degree from the University of Pittsburgh and a doctorate from the University of Illinois at Urbana-Champaign. All of those degrees are in electrical engineering.

While Simaan will be UCF’s first U.S. National Academy member, international academies have recognized other faculty. Henry Daniell, a professor of Molecular Biology and Microbiology, is a member of the National Academy of Science, Italy. Boris Zeldovich, a professor of Optics and Physics, is a member of the Russian Academy of Science.