Florida Cluster for Advanced Smart Sensor Technologies (FCASST) Award

The Department of Physics at USF has been awarded a New Florida 2010 Clustering Grant from the Florida State University System's Board of Governors to establish a ***Florida Cluster for Advanced Smart Sensor Technologies (FCASST).***

The $550K award to scientists and engineers from the Department of Physics at the University of South Florida (USF) and the Department of Materials Science and Engineering (MSE) at the University of Florida (UF) will establish an inter-institutional cluster directed at the discovery, development and optimization of smart sensors based on advances in materials science and technology. Co-directed by Prof. Pritish Mukherjee, Chair of Physics at USF, and Prof. Simon Phillpot, Chair of MSE at UF, the cluster will nucleate research collaboration between two units with doctoral programs that are unique in the State of Florida: Applied Physics at USF, the only such program in the State of Florida, and MSE at UF which is ranked among the top 5 in the Nation.

The science and technology of sensors is a rapidly growing area of research that promises to fulfill the increasing demand for faster, cheaper, smaller, and more sensitive means to monitor the chemical, biological, and physical world around us. The technology of sensors that cuts across the disciplines of physics, chemistry, biology and engineering can have a global impact in many areas that include environmental cleanup, industrial process control, emissions monitoring, nonproliferation of weapons, screening for explosives and contraband, home and workplace safety, medical diagnosis and care, aeronautical and space systems, and planetary exploration.

The design, fabrication, and construction of smart structures which are suitable for a diversity of sensing applications present ultimate challenges in science and engineering today. Fundamental understanding of how materials, the building blocks of sensors, respond to changes that are to be detected, and acquiring the know-how to develop practical devices that will ultimately benefit society are essential for making advances in sensor technology. FCASST brings together existing expertise and infrastructure at USF and UF with complementary synergies spanning the range from fundamental science to engineering applications. Including well-established materials design and development programs, and considerable strength in the fabrication of device structures and prototyping, FCASST will launch a coherent project towards developing the next generation of smart sensors.

Further details about the New Florida Initiative awards are available at http://flbog.edu/pressroom/news.php?id=369.