

Mechanical Engineering Department Seminar

3:30pm October 14, 2009
1130 Mechanical Engineering



Advanced Research to Products with Micro and Nano Technologies

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This talk will present the results of the research done at Honeywell Automation and Control Solution's Sensors and Wireless Laboratory in the area of MEMS/nano-sensors and ultra-miniaturized gold-standard lab instrumentation enabled by micro and nano technologies. The talk will describe some of the lead applications for which these new micro-instruments are being currently applied and how they will change the sensing paradigm in the future. In addition, the speaker will briefly address the challenges associated with translating the promise of MEMS/nano technologies into revenue generating products.

Bio Aravind Padmanabhan, Ph.D., is Director of Honeywell's Automation and Control Solutions (ACS) Sensors & Wireless Global Labs. He received his Ph.D. in microelectromechanical systems and a minor in management from the Massachusetts Institute of Technology. He also earned a bachelor's degree in mechanical engineering from the Indian Institute of Technology in Madras, India. Aravind joined Honeywell in 1997 as a principal scientist, and most recently held the position of senior technology manager. His research work at Honeywell has involved the development and commercialization of microelectromechanical systems (MEMS) based sensors/actuators and highly integrated microsystems including a micro flow cytometer, MEMS-based optical correlation spectrometer, photonic crystals, micro liquid flow sensors and sensor systems for chemical and biological warfare agent detection. He has published over 20 papers and holds 23 issued patents with more than 15 patents pending. He represents Honeywell at several MEMS and Nano industry groups and trade associations. His lab is responsible for establishing, implementing and driving the technology research strategic plan for the ACS businesses in the area of sensors and wireless technologies. The lab has been successful in transitioning multiple device and systems technologies from advanced research into the new product development pipeline of Honeywell.