**IEEE Circuits and Systems Society (CASS)**

**Distinguished lecture**

강사: Professor Gabriel A. Rincón-Mora, Georgia Institute of Technology

주제: Energizing and Powering Microsensors

일시: 2019년 5월 9일 목요일 오후 4시 30분 아주대학교 원천관 535호

2019년 5월 10일 금요일 오후 4시 30분 서강대학교 김대건관 K관 101호



Title: Energizing and Powering Microsensors

Abstract: Networked wireless microsensors can not only monitor and manage power consumption in small- and large-scale applications for space, military, medical, agricultural, and consumer markets but also add cost-, energy-, and life-saving intelligence to large infrastructures and tiny devices in remote and difficult-to-reach places. Ultra-small systems, however, cannot store sufficient energy to sustain monitoring, interface, processing, and telemetry functions for long. And replacing or recharging the batteries of hundreds of networked nodes can be labor intensive, expensive, and oftentimes impossible. This is why alternate sources are the subject of ardent research today. Except power densities are low, and in many cases, intermittent, so supplying functional blocks is challenging.

Plus, tiny lithium-ion batteries and super capacitors, while power dense, cannot sustain life for extended periods. This talk illustrates how emerging microelectronic systems can draw energy from elusive ambient sources to power tiny wireless sensors.

Bio: Gabriel A. Rincón-Mora has been a Professor at the Georgia Institute of Technology (Georgia Tech) since 2001, Visiting Professor at National Cheng Kung University in Taiwan since 2011, Director of the TI Analog Fellowship Program in 2001-2015, Director of the Georgia Tech Analog Consortium in 2001-2004, Adjunct Professor at Georgia Tech in 1999-2001, and Design Team Leader at Texas Instruments in 1994-2003. He is a Fellow of the National Academy of Inventors, a Fellow of the IEEE, and a Fellow of the Institution of Engineering and Technology. He was inducted into Georgia Tech's Council of Outstanding Young Engineering Alumni and named one of "The 100 Most Influential Hispanics" by Hispanic Business magazine. Other distinctions include the National Hispanic in Technology Award from the Society of Hispanic Professional Engineers (SHPE), Charles E. Perry Visionary Award from Florida International University (FIU), Three-Year Patent Award from Texas Instruments, Orgullo Hispano Award from Robins Air Force Base, Hispanic Heritage Award from Robins Air Force Base, and a Commendation Certificate from former Lieutenant Governor Cruz M. Bustamante of California. His scholarly products include 9 books, 5 book chapters, 42 patents licensed, over 170 articles, over 26 commercial power chips, and over 140 international speaking engagements.