

# Armstrong Memorial Lectures

 Columbia University - Department of Electrical Engineering

**Dr. Irwin Mark Jacobs,  
Co-Founder and Director, Qualcomm, Inc.**

**"Technology and Business Innovations at Qualcomm  
with Impact on a World of Nearly Six Billion Cellular  
Subscribers"**

**Wednesday, February 1, 2012 at 2:30 pm,  
Davis Auditorium, Columbia University**

After 13 years as a Professor at MIT and UCSD, Dr. Jacobs cofounded and was Chairman and CEO of two successful companies, Linkabit and Qualcomm. He will touch on innovations introduced in both companies and then trace the history of CDMA from concept to the technology underlying all third generation cellular systems. With cell phones now evolved from simple telephony to powerful computers with always-on Internet connectivity and position location, game-quality graphics, high quality camera and video capability, voice recognition, various sensors, and now augmented reality, they are increasingly the key to economic growth and social change in developing and developed countries. Dr. Jacobs will describe several pilot projects initiated by Qualcomm in over 30 countries, including telemedicine, micro-finance, and 24/7 education.



Bio: Dr. Jacobs co-founded QUALCOMM, a Fortune 500 company with 20,000 employees worldwide, in 1985, serving as CEO until 2005 and Chairman until 2009. Prior to that time, from 1959-1966, he served as a professor of electrical engineering at MIT, and then as professor of computer science and engineering from 1966-1972 at University of California, San Diego (UCSD). While at MIT he co-authored, with Jack Wozencraft, the digital communications textbook "Principles of Communication Engineering", still in use today. He left academia to co-found LINKABIT Corp., serving as CEO and Chairman until its merger with M/A-COM in 1980. Dr. Jacobs has a bachelor's degree in electrical engineering from Cornell, and MS and Ph.D degrees from MIT. He is a member and Chair of the National Academy of Engineering, and an IEEE Fellow. In June 2011 he was appointed by the Secretary of Education to serve on the Board of the the National Center for Research in Advanced Information and Digital Technologies. Dr. Jacobs holds 14 patents in CDMA technology.



## **THE ARMSTRONG LECTURESHIP**

This series of lectures offered by the Department of Electrical Engineering at Columbia University in New York is named in honor of Edwin Howard Armstrong, 1890-1954, a pre-eminent electrical engineer, who through his extraordinary inventions, FM radio among them, contributed immeasurably to the advancement of wireless communications and broadcasting. He spent his entire career in the department – first as a student and later as a professor.

<http://www.ee.columbia.edu/armstronglectures>

CO-SPONSORED BY THE ARMSTRONG MEMORIAL RESEARCH FOUNDATION  
& New York IEEE EDS/SSCS Chapter