Billions of people worldwide regularly use and depend upon the Internet in their daily lives. The volume of both mobile data and fixed-line data broadband access consequently grows rapidly along with the need for higher speeds. This talk investigates an evolution of broadband access speeds and technology that addresses the demand cost effectively and in a timely manner, posing a solution that enables 100 Mbps to Gbps broadband access to all for realistic costs. Contributions to various methods within the technology by A. Viterbi will also be noted.

John M. Cioffi is Chairman and CEO of ASSIA, Inc, a Redwood City, CA based company. ASSIA is known for pioneering DSL management software sold to DSL service providers, and specifically for introducing Dynamic Spectrum Management or DSM. Cioffi is also the Hitachi Professor Emeritus at Stanford University, where he held a tenured endowed professorship before retiring after 22 full-time years. Cioffi received his BSEE from the University of Illinois, 1978; PhDEE from Stanford, 1984; and an Honorary Doctorate from the University of Edinburgh in 2010. He worked for Bell Laboratories, 1978-1984; IBM Research, 1984-1986; and as a professor at Stanford University, 1986-2008. Cioffi also founded Amati Communications Corp. in 1991 (purchased by TI in 1997 for its DSL technology) and was officer/director from 1991-1997. Cioffi designed the world’s first ADSL and VDSL modems, which today account for roughly 98% of the 400 million DSL connections worldwide. Cioffi currently also serves on the Board of Directors of Alto Beam and the Marconi Foundation, and has previously served on the boards of eight other public and private companies. He has received various awards, including the IEEE Alexander Graham Bell, Kobayashi, and Millennium Medals/Awards (2010, 2001, 2000), The Economist’s 2010 Innovation Award, International Marconi Fellow (2006), Member, United States National and UK Royal Academies of Engineering (2001, 2009), IEEE Fellow (1996), IEE JJ Tomson Medal (2000), University of Illinois Outstanding Alumnus (2009) and Distinguished Alumnus (2010). Cioffi has published several hundred technical papers and is the inventor named on more than 100 additional patents, many of which are heavily licensed in the communication industry.