



Rensselaer

EE
EPE
CSE



Department of Electrical, Computer, & Systems Engineering

SEMINAR

Title: Cellphone Nirvana

**Speaker: Dr. Nambirajan “Nambi” Seshadri, Broadcom Corp.
(RPI ECSE MS '84; Ph.D. '86)**

Day: Friday, February 22, 2008

Location: Low CII 3051

Time: 2:30 – 3:00 p.m. Refreshments

3:00 – 4:00 p.m. Seminar

Abstract

In this presentation, I will summarize what Broadcom is doing in next generation wireless to enable the world of cell phones to transition from voice and messaging to being the main communications, computing, and consumer electronics platform. This platform requires newer communications modalities such as personal, local area wireless networking, and 1Gbps+ wire replacement. In the near future, this platform should be able to download, process and display native web content, HD video encode/decode, superior camera performance, and high-end gaming.

The result of all this is a need for best in class communications receivers, innovations in low power multi-media architectures, and integration of various forms of wireless technologies to enable small mobile devices as well as promote improved co-existence between the wireless technologies. Such integration, while challenging, is possible due to advances in power management, mixed-analog, digital, and RF technologies. Ultimately, these devices will allow users the freedom to avail themselves of the best means of communication and computing at any time and any place.

Biography

An alumnus of RPI, Nambi Seshadri is Chief Technology Officer of Mobile and Wireless at Broadcom Corporation, Irvine, CA. Since joining Broadcom in 1999, he has been responsible for technology directions, investments, and acquisitions in the mobile and wireless space. Prior to joining Broadcom, he spent 13 years at AT&T, first at AT&T Bell Labs and then at AT&T Labs. During his tenure at AT&T, he and his colleagues contributed to several fundamental innovations in wireless communications including combined source and channel coding for cellular, space-time coding and incremental redundancy packet transmission, all of which are now part of major cellular standards. Nambi is a Fellow of IEEE and co-authored the paper on Space-Time Codes that won the best paper award from IEEE Information Theory Society. He is among the top 10 cited authors in Computer Science according to Thomson In-Cites.

Host: Prof. Ken Vastola, vastola@ecse.rpi.edu