

## **BELL LABS: LIFE IN THE CROWN JEWEL**

by Narain Gehani, New Jersey Institute of Technology

**Date:** November 20, 2003 (Thursday)  
**Time:** 6:00 pm (refreshment starts at 5:45 pm)  
**Place:** 202 ECEC, NJIT

### **About the Speaker**

**Narain Gehani** is currently the Chairman and Professor of Computer Science at New Jersey Institute of Technology. Prior to that, Dr. Gehani was with Silicon Press and with Bell Labs, Lucent Technologies, the latter from 1978 to 2001. When he left Bell Labs, Narain was the Vice President of the Communication Software Research Lab. The lab was actively engaged in numerous leading edge technology projects, for example, office computing access for mobile workers, collaborative telephone/Web environment, VoiceXML, and XML query languages. Some past projects included, IP PBX, Web-based contact center, and DEN based network management applications. Narain and his team developed the pioneering Ode object database.

From 6/96 to 5/98, Dr. Gehani was President of the Maps On Us (Lucent commercial web site, [www.MapsOnUs.com](http://www.MapsOnUs.com)), a website co-founded by Dr. Gehani. Maps On Us provides maps, routes, and yellow pages. He led and managed the deployment of Maps On Us from conception and commercial deployment until its sale. Maps On Us was sold to SwitchBoard in 5/98.

Dr. Gehani is a world-renowned expert in Web technologies, software, and databases. He got his PhD in computer science from Cornell University in 1975. He taught computer science for 3 years at SUNY/Buffalo and then joined Bell Labs in 1978. He has authored several software systems, including the Ode database and Concurrent C/C++ parallel programming language, holds several patents, and has written many books and numerous papers in computer science.

### **About the Talk**

Bell Labs, the greatest research lab of the twentieth century, has been called America's national treasure and the crown jewel of AT&T and Lucent. To scientists all over the world, pursuing research at Bell Labs has long been a dream because of its brilliant scientists, numerous inventions, academic freedom, and plentiful resources. But now, forced by the marketplace, competition, and economic conditions, the world's most prestigious research lab is in the midst of radical cultural change – moving from university-style (basic) research to industrial (applied).

Moving from basic research to industrial research is much more difficult than going from industrial research to basic research because industrial research puts constraints on scientists while basic research frees them to explore new frontiers. Bell Labs researchers, who once were free to focus on innovation, research excellence, and prizes, now have to worry about business relevance.

I will talk about Bell Labs culture and its glorious history. I will describe the cultural differences between Bell Labs research and the business units, the different research models and the challenges facing Bell Labs in the twenty first century.

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