

ECE Department Seminar  
Communications and Networking Lab (CNL)

---

Date: March 12, 2008  
Time: 2:00-3:00 pm  
Location: JC 3rd Floor Meeting Rm F

---

**Myths, Missteps, and Folklore of Network Protocol Design**

Dr. Radia Perlman  
Sun Microsystems

**Abstract** - Network protocol design is not a nice, clean science, where what gets deployed is the best possible design. Instead, designs are influenced by issues such as politics, general confusion, and backward compatibility. Statements get made, and repeated, until it never occurs to anyone to question whether they're true.

Mistakes get made, and rather than backing up and fixing them, kludges are introduced to make things sort of work. This talk discusses how some of the odder things we live with (e.g., bridges) came about, and interesting bad protocol designs that have been standardized and/or deployed. It also discusses "obvious" protocol design issues that somehow get overlooked, such as designing for future evolution, and ability to change parameters, node by node, without disrupting a network. The talk is intended to be provocative, making people question the things they have always taken for granted.

**Bio** - Radia Perlman is a Fellow at Sun Microsystems. She specializes in network and security protocols. She is the inventor of the spanning tree algorithm used by bridges, and the mechanisms that make modern link state protocols efficient and robust. She is the author of two textbooks, and has a PhD from MIT in computer science.