Warehouse-Scale Computing: Building Google's Computer

<u>Speaker</u>: Dr. Nan Boden, *Google*
Director of Engineering – Technical Infrastructure

<u>Date and Time</u>: November 21 (Friday), 2014 – 9:00am-10:00am

<u>Location</u>: Paty 162 – The Engenuity Lab

Abstract:

As computation continues to move into the cloud, the computing platform of interest no longer resembles a pizza box or a refrigerator, but instead warehouses full of computers. These new large datacenters are quite different from traditional hosting facilities of earlier times and cannot be viewed simply as a collection of co-located servers. Large portions of the hardware and software resources in these facilities must work in concert to efficiently deliver performance, something that can only be achieved by a holistic approach to their design and deployment. In other words, the datacenter itself must be treated as one massive warehouse-scale computer (WSC). Google's warehouse-scale computers are examples of this trend, efficiently providing computing to billions of users across the globe.

Biography:

Dr. Nan Boden is a Director of Engineering at Google in Mountain View, CA, joining in 2013 to help develop Google's next-generation data centers. Nan formerly was the CEO of Myricom, a successful California Institute of Technology (Caltech) spin-off founded in 1994 that pioneered high-performance computer networking. Over the years at Myricom, Nan migrated from the techie world into the business world, serving as Executive Vice President, CFO, a member of Myricom's Board of Directors, and then becoming CEO in 2010.

Nan earned her PhD and MS degrees in Computer Science from Caltech and her BS degree from the University of Alabama in Applied Mathematics. Nan's PhD research in "Runtime Systems for Fine-Grain Multicomputers" led directly into her work at Myricom, where she wrote the software that controlled the company's first products. With the goal of adding formal business education to her hard-won business experience, Nan completed her MBA at UCLA in 2011.

In her current role at Google, Nan works at the strategic intersection of technology and business.